PUB. 183

SAILING DIRECTIONS

(ENROUTE)

NORTH COAST OF RUSSIA

Prepared and published by the

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Springfield, Virginia

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FOURTEENTH EDITION

Preface

Pub. 183, Sailing Directions (Enroute) North Coast of Russia, Fourteenth Edition, 2025, is issued for use in conjunction with Pub. 180, Sailing Directions (Planning Guide) Arctic Ocean. The companion volumes are Pubs. 181 and 182.

Digital Nautical Charts 22 and 27 provide electronic chart coverage for the area covered by this publication.

Electronic Nautical Chart Regions X, Y, and Z provide electronic chart coverage for the area covered by this publication.

This publication has been corrected to 27 December 2025.

Explanatory Remarks

Sailing Directions are published by the National Geospatial-Intelligence Agency (NGA) under the authority of Department of Defense Directive 5105.60, dated 29 July 2009, and pursuant to the authority contained in U. S. Code Title 10, Chapter 22, Section 451 and Title 44, Section 1336. Sailing Directions, covering the harbors, coasts, and waters of the world, provide information that cannot be shown graphically on nautical charts and is not readily available elsewhere.

Sailing Directions (Enroute) include detailed coastal and port approach information which supplements the largest scale chart produced by the National Geospatial-Intelligence Agency. This publication is divided into geographic areas called "Sectors."

Bearings.—Bearings are true, and are expressed in degrees from 000° (north) to 360°, measured clockwise. General bearings are expressed by the initial letters of the points of the compass (e.g. N, NNE, NE, etc.). Adjective and adverb endings have been discarded. Wherever precise bearings are intended, degrees are used.

Charts.—Reference to charts made throughout this publication refers to hard copy paper charts and electronic charts.

As the maritime community moves towards electronic navigation, the Maritime Safety Office will begin reducing NGA's Standard Nautical Chart portfolio. Further information can be found in the "What's New" section of the NGA Maritime Safety Information web site (https://msi.nga.mil).

As of October 2024, the DNC to ENC conversion is 100% complete. NGA has accepted a total of 3,501 DNC to ENC conversion cells from September 2020 to October 2024. The completed NGA ENC Library will be available to authorized users on DVD via the Defense Logistics Agency or NGA's Maritime Content Dissemination Portal.

Corrective Information.—Users should refer corrections, additions, and comments to NGA's Maritime Operations Desk or the Maritime Safety Office, as follows:

NGA Maritime—Contact Information	
Maritime Operations Desk	
Toll free	1-800-362-6289
Commercial	571-557-5455

NGA Maritime—Contact Information	
DSN	547-5455
E-mail	navsafety@nga.mil
Maritime Safety Office	
DNC web site	https://dnc.nga.mil
ENC web site	https://mcdp.nga/mil/enc
Maritime Domain web site	https://msi.nga.mil
E-mail	MarHelp@nga.mil
Maritime Quality Feedback System (MQFS)	https://marhelp.nga.mil
Mailing address	Maritime Safety OfficeNational Geospatial-Intelligence AgencyMail Stop N64-SFH7500 Geoint DriveSpringfield VA 22150-7500

New editions of Sailing Directions are corrected through the date of publication shown above. Important information to amend material in the publication is updated as needed and available as a downloadable corrected publication from the NGA Maritime Domain web site.

NGA Maritime Safety Office Web Site
https://msi.nga.mil

Courses.—Courses are true, and are expressed in the same manner as bearings. The directives "steer" and "make good" a course mean, without exception, to proceed from a point of origin along a track having the identical meridional angle as the designated course. Vessels following the directives must allow for every influence tending to cause deviation from such track, and navigate so that the designated course is continuously being made good.

Currents.—Current directions are the true directions toward which currents set.

Distances.—Distances are expressed in nautical miles of 1 minute of latitude. Distances of less than 1 mile are expressed in meters, or tenths of miles.

Geographic Names.—Geographic names are generally those used by the nation having sovereignty. Names in parentheses following another name are alternate names that may appear on some charts. In general, alternate names are quoted only in the principal description of the place. Diacritical marks, such as accents, cedillas, and circumflexes, which are related to specific letters in certain foreign languages, are not used in the interest of typographical simplicity.

Wherever possible, names used on NGA charts and in NGA publications are in the form approved by the United States Board on Geographic Names (BGN). Generally, local official spellings are used for those features entirely within a single sovereignty, names of countries and those features

which are common to two or more countries or which lie beyond a single sovereignty may carry Board-approved conventional spellings (i.e., names in common English language usage). When alternate names would be of value to the user, they may be shown for information purposes within parentheses. Important individual name changes are made to all revised charts as the opportunity permits.

Geographic names or their spellings do not necessarily reflect recognition of the political status of an area by the United States Government.

BGN approved names may be found at https://geonames.nga.mil/geonames/GNSHome/welcome.html.

Heights.—Heights are referred to the plane of reference used for that purpose on the charts and are expressed in meters.

Internet Links.—This publication provides Internet links to web sites concerned with maritime navigational safety, including but not limited to, Federal government sites, foreign Hydrographic Offices, and foreign public/private port facilities. NGA makes no claims, promises, or guarantees concerning the accuracy, completeness, or adequacy of the contents of these web sites and expressly disclaims any liability for errors and omissions in the contents of these web sites.

International Ship and Port Facility Security (ISPS) Code.—The ISPS Code is a comprehensive set of measures to enhance the security of ships and port facilities developed in response to the perceived threats to ships and port facilities in the wake of the 9/11 attacks in the United States. Information on the ISPS Code can be found at the International Maritime Organization web site:

International Maritime Organization Home Page
https://www.imo.org

Lights and Fog Signals.—Lights and fog signals are not described, and light sectors are not usually defined. The Light Lists should be consulted for complete information.

National Ocean Claims.—Information on national ocean claims and maritime boundary disputes, which have been com-piled from the best available sources, is provided solely in the interest of the navigational safety of shipping and in no way constitutes legal recognition by the United States. These non-recognized claims and requirements may include, but are not limited to:

1. A requirement by a state for advance permission or notification for innocent passage of warships in the territorial sea.
2. Straight baseline, internal waters, or historic waters claims.
3. The establishment of a security zone, where a state claims to control activity beyond its territorial sea for security reasons unrelated to that state's police powers in its territory, including its territorial sea.

Radio Navigational Aids.—Radio navigational aids and radio weather services are not described in detail. Publication No. 117 Radio Navigational Aids and NOAA Publication, Selected Worldwide Marine Weather Broadcasts, should be consulted.

Soundings.—Soundings are referred to the datum of the charts and are expressed in meters.

Telephone and Facsimile Numbers.—Within this publication, the international telephone and facsimile numbers provided as contact information contain the minimum digits necessary to dial. Please note that these contact numbers do not include additional digits or special characters, such as (0) or (+), which may be required when dialing. The necessity of such digits and characters depend upon numerous factors and conditions, such as the user's geolocation and service provider. Mariners are advised to consult their communications equipment and service provider manuals for guidance.

Time.—Time is normally expressed as local time unless specifically designated as Universal Coordinated Time (UTC).

Time Zone.—The Time Zone description(s), as well as information concerning the use of Daylight Savings Time, are included. The World Time Zone Chart is available on the Inter-net at the web site given below.

Standard Time Zone of the World Chart
https://www.cia.gov/the-world-factbook/maps/world-regional
Home page--Click on Maps
Maps page--Under World and Regional Maps click on View Maps
World and Regional Maps page--Select World in the filter list on the left side of the screen
Choose Standard Time Zones of the World (PDF version)

U.S. Maritime Advisory System.—The U.S. Maritime Advisory System is a streamlined inter-agency approach to identifying and promulgating maritime security threats. The system replaces Special Warnings to Mariners (State Department), MARAD Advisories (Maritime Administration), and Marine Safety Information Bulletins (U.S. Coast Guard) and consists of the following items:

1. U.S. Maritime Alert—Provides basic information (location, incident, type, date/time) on reported maritime security threats to U.S. maritime industry interests. U.S. Maritime alerts do not contain policy or recommendations for specific courses of information.
2. U.S. Maritime Advisory—Provides more detailed information, when appropriate, through a "whole-of-government" response to an identified maritime threat.

Maritime Administration (MARAD)—U.S. Maritime Advisory System
https://www.maritime.dot.gov/msci-advisories

Winds.—Wind directions are the true directions from which winds blow.

Reference List

The principal sources examined in the preparation of this publication were:

British Hydrographic Department Sailing Directions.

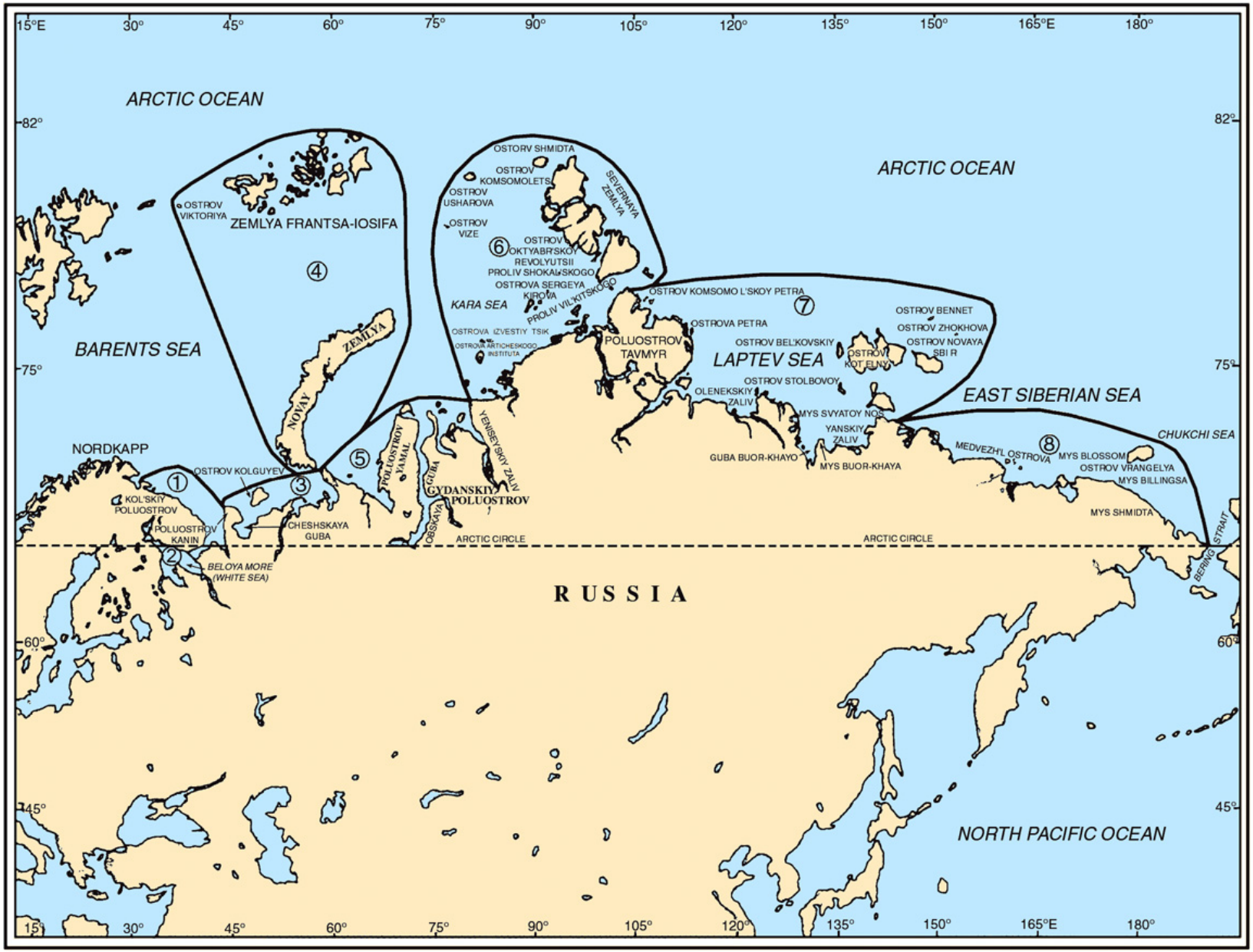
Russian Sailing Directions.

Various port handbooks.

Reports from United States Naval and merchant vessels and various shipping companies.

Other U.S. Government publications, reports, and documents.

Charts, light lists, tide and current tables, and other documents in possession of the Agency.



Sector Boundary

SECTOR LIMITS—PUB. 183

Conversion Tables

Fathoms to Meters										
Fathoms	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
0	0.00	1.83	3.66	5.49	7.32	9.14	10.97	12.80	14.63	16.46
10	18.29	20.12	21.95	23.77	25.60	27.43	29.26	31.09	32.92	34.75
20	36.58	38.40	40.23	42.06	43.89	45.72	47.55	49.38	51.21	53.03
30	54.86	56.69	58.52	60.35	62.18	64.01	65.84	67.67	69.49	71.32
40	73.15	74.98	76.81	78.64	80.47	82.30	84.12	85.95	87.78	89.61
50	91.44	93.27	95.10	96.93	98.75	100.58	102.41	104.24	106.07	107.90
60	109.73	111.56	113.39	115.21	117.04	118.87	120.70	122.53	124.36	126.19
70	128.02	129.85	131.67	133.50	135.33	137.16	138.99	140.82	142.65	144.47
80	146.30	148.13	149.96	151.79	153.62	155.45	157.28	159.11	160.93	162.76
90	164.59	166.42	168.25	170.08	171.91	173.74	175.56	177.39	179.22	181.05

Meters to Feet										
Meters	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
0	0.00	3.28	6.56	9.84	13.12	16.40	19.68	22.97	26.25	29.53
10	32.81	36.09	39.37	42.65	45.93	49.21	52.49	55.77	59.06	62.34
20	65.62	68.90	72.18	75.46	78.74	82.02	85.30	88.58	91.86	95.14
30	98.42	101.71	104.99	108.27	111.55	114.83	118.11	121.39	124.67	127.95
40	131.23	134.51	137.80	141.08	144.36	147.64	150.92	154.20	157.48	160.76
50	164.04	167.32	170.60	173.88	177.16	180.45	183.73	187.01	190.29	193.57
60	196.85	200.13	203.41	206.69	209.97	213.25	216.54	219.82	223.10	226.38
70	229.66	232.94	236.22	239.50	242.78	246.06	249.34	252.62	255.90	259.19
80	262.47	265.75	269.03	272.31	275.59	278.87	282.15	285.43	288.71	291.99
90	295.28	298.56	301.84	305.12	308.40	311.68	314.96	318.24	321.52	324.80

Meters to Fathoms										
Meters	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
0	0.00	0.55	1.09	1.64	2.19	2.73	3.28	3.83	4.37	4.92
10	5.47	6.01	6.56	7.11	7.66	8.20	8.75	9.30	9.84	10.39
20	10.94	11.48	12.03	12.58	13.12	13.67	14.22	14.76	15.31	15.86
30	16.40	16.95	17.50	18.04	18.59	19.14	19.68	20.23	20.78	21.33
40	21.87	22.42	22.97	23.51	24.06	24.61	25.15	25.70	26.25	26.79
50	27.34	27.89	28.43	28.98	29.53	30.07	30.62	31.17	31.71	32.26
60	32.81	33.36	33.90	34.45	35.00	35.54	36.09	36.64	37.18	37.73
70	38.28	38.82	39.37	39.92	40.46	41.01	41.56	42.10	42.65	43.20
80	43.74	44.29	44.84	45.38	45.93	46.48	47.03	47.57	48.12	48.67
90	49.21	49.76	50.31	50.85	51.40	51.95	52.49	53.04	53.59	54.13

Feet to Meters										
Feet	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
0	0.00	0.30	0.61	0.91	1.22	1.52	1.83	2.13	2.44	2.74
10	3.05	3.35	3.66	3.96	4.27	4.57	4.88	5.18	5.49	5.79

Feet to Meters										
Feet	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
20	6.10	6.40	6.71	7.01	7.32	7.62	7.92	8.23	8.53	8.84
30	9.14	9.45	9.75	10.06	10.36	10.67	10.97	11.28	11.58	11.89
40	12.19	12.50	12.80	13.11	13.41	13.72	14.02	14.33	14.63	14.93
50	15.24	15.54	15.85	16.15	16.46	16.76	17.07	17.37	17.68	17.98
60	18.29	18.59	18.90	19.20	19.51	19.81	20.12	20.42	20.73	21.03
70	21.34	21.64	21.95	22.25	22.55	22.86	23.16	23.47	23.77	24.08
80	24.38	24.69	24.99	25.30	25.60	25.91	26.21	26.52	26.82	27.13
90	27.43	27.74	28.04	28.35	28.65	28.96	29.26	29.57	29.87	30.17

Abbreviations

The following abbreviations may be used in the text:

Units

°C	degree(s) Centigrade	km	kilometer(s)
cm	centimeter(s)	m	meter(s)
cu.m.	cubic meter(s)	mb	millibars
dwt	deadweight tons	MHz	megahertz
FEU	forty-foot equivalent units	mm	millimeter(s)
gt	gross tons	nt	net tons
kHz	kilohertz	TEU	twenty-foot equivalent units

Directions

N	north	S	south
NNE	northnortheast	SSW	southsouthwest
NE	northeast	SW	southwest
ENE	eastnortheast	WSW	westsouthwest
E	east	W	west
ESE	eastsoutheast	WNW	westnorthwest
SE	southeast	NW	northwest
SSE	southsoutheast	NNW	northnorthwest

Vessel types

LASH	Lighter Aboard Ship	Ro-ro	Roll-on Roll-off
LNG	Liquified Natural Gas	ULCC	Ultra Large Crude Carrier
LPG	Liquified Petroleum Gas	VLCC	Very Large Crude Carrier
OBO	Ore/Bulk/Oil	VLOC	Very Large Ore Carrier
Lo-lo	Lift-on Lift-off	FSO	Floating Storage and Offloading
NGL	Natural Gas Liquids	FSU	Floating Storage Unit
FSRU	Floating Storage and Re-gasification Unit	FPSO	Floating Production Storage and Offloading

Time

ETA	estimated time of arrival	GMT	Greenwich Mean Time
ETD	estimated time of departure	UTC	Coordinated Universal Time

Water level

MSL	mean sea level	LWS	low water springs
HW	high water	MHWN	mean high water neaps
LW	low water	MHWS	mean high water springs
MHW	mean high water	MLWN	mean low water neaps
MLW	mean low water	MLWS	mean low water springs
HWN	high water neaps	TFW	Tropical Fresh Water
HWS	high water springs	HAT	highest astronomical tide
LWN	low water neaps	LAT	lowest astronomical tide

The following abbreviations may be used in the text:

Communications

D/F	direction finder	MF	medium frequency
R/T	radiotelephone	HF	high frequency
GMDSS	Global Maritime Distress and Safety System	VHF	very high frequency
LF	low frequency	UHF	ultra high frequency

Navigation

LANBY	Large Automatic Navigation Buoy	SBM	Single Buoy Mooring
NAVSAT	Navigation Satellite	SPM	Single Point Mooring
ODAS	Ocean Data Acquisition System	TSS	Traffic Separation Scheme
CBM	Conventional Buoy Mooring System	VTC	Vessel Traffic Center
MBM	Multi-Buoy Mooring System	VTS	Vessel Traffic Service
CALM	Catenary Anchor Leg Mooring		

Miscellaneous

AIS	Automatic Identification System	MMSI	Maritime Mobile Service Identity Code
COLREGS	Collision Regulations	No./Nos.	Number/Numbers
IALA	International Association of Lighthouse Authorities	PA PD	Position approximate Position doubtful
IHO	International Hydrographic Organization	Pub.	Publication
IMO	International Maritime Organization	SOLAS	International Convention for Safety of Life at Sea
IMDG	International Maritime Dangerous Goods Code		
LOA	length overall	St./Ste.	Saint/Sainte
UKC	Under keel clearance	ISPS	International Ship and Port facility Security
ITC	International Convention on the Tonnage Measurement of Ships (1969)	ECDIS	Electronic Chart Display and Information System

Contents

Additional chart coverage may be found in NGA/DLIS Catalog of Maps, Charts, and Related Products (Unlimited Distribution).

Sector 1 — CHART INFORMATION

Sector 1
Norwegian-Russian Boundary to the White Sea (Beloye More)

Plan.—This sector describes the NW coast of Russia, from the Norwegian border to the White Sea (Beloye More). The sector also describes the off-lying islands, islets and dangers. The descriptive sequence is SE to the entrance of the White Sea, then S to Mezenskaya Guba, and finally SSW to Mys Zimnegorskiy, the SE end of Gorlo Belogo Morya.

General Remarks

1.1 Winds—Weather.—Great changes in the weather conditions are generally found in this area. Winds, fog, and rain occur with suddenness, and change again as rapidly. Thick fogs usually occur at the end of May and the beginning of June, especially off the coast. These fogs usually penetrate the various fjords, but are very patchy. Sometimes there is thick weather in the fjords, but clear weather is found at sea, and vice versa. The extremities of these patches of fog are clearly defined, ending with wall-like abruptness.

Mirages frequently occur in calm weather in the summer, mainly in the morning and evening. Prevailing winds are E in the summer, strong and variable in the autumn, and SW in the winter, with frequent storms.

In certain weather conditions, ice may accumulate on the hulls and superstructures of vessels. This event may result in a dangerous situation. A combination of strong winds, precipitation, and spray in sub-zero temperatures can result in ice accumulation. It can also form when fog is combined with freezing conditions or in freezing drizzle or rain. The conditions are likely to occur at any time between September and June.

If vessels are unable to reach shelter or warmer conditions, they should head into the wind and sea at the slowest speed possible. If weather conditions do not allow the former action, vessels should put the wind astern and proceed at the least speed necessary for maintaining steerage.

Ice.—Generally, the ice to the W of 36°E does not impede navigation even during severe conditions. Coastal ice may form in all places E of 32°E, especially where there is a freshwater outflow.

Aspect.—Murmanskiy Bereg, the westernmost Arctic coast of Russia, forms the N and in part, the NE shore of Poluostrov Kol'skiy, which in turn forms the N shore of the White Sea. Jakobselv, the river boundary between Norway and Russia, lies 25 miles WSW of Mys Nemetskiy. The NW coast of Poluostrov Rybachiy, located 25 miles ENE of Jakobselv, is bordered by black cliffs, behind which there are low hills covered with green peat.

Regulations.—A new mandatory ship reporting system (Barents SRS) has been established for the Barents Sea to include Russian Federation waters S of 71°N along 33°20'E to the Russian Federation coast. Participation in the Barents SRS is mandatory for the following vessels:

1. Vessels 5,000 gross tons and larger in size.
2. All tankers.
3. All vessels carrying hazardous cargo.
4. All towing vessels when the tow length is greater than 200m.
5. Any vessels considered 'not under command', or with defective navigational equipment, or otherwise restricted in their ability to maneuver.

The Barents SRS operates in conjunction with the Barents Sea and Beloye More (White Sea) Reporting System that is described below.

See Pub. 180, Sailing Directions (Planning Guide) Arctic Ocean for further details.

The Barents Sea and Beloye More (White Sea) Reporting System operates in the waters described within this sector. To ensure the safety of navigation, Reporting Points (Control Points), which are listed in the table titled **Barents Sea and Beloye More (White Sea) Reporting System—Reporting Points (Control Points)**, have been established along the 20-mile coastal strip (zone of observation) and in the White Sea (Beloye More).

Barents Sea and Beloye More (White Sea) Reporting System—Reporting Points (Control Points)

No.	Name	Position	Remarks
C	Mys Svyatonosskiy	68°28'00.0"N, 39°12'30.0"E	Inbound traffic (toward the White Sea) only.
C1	Ostrov Kharlov	68°44'30.0"N, 38°22'00.0"E	Outbound traffic (away from the White Sea) only.
C2	Mys Chernyy	68°36'39.0"N, 38°36'00.0"E	Inbound traffic (toward the White Sea) only.
C3	Ostrov Bol'shoy Oleniy	69°05'00.0"N, 37°14'12.0"E	Outbound traffic (away from the White Sea) only.
C4	Ostrov Kharlov	69°04'48.0"N, 37°03'06.0"E	Inbound traffic (toward the White Sea) only.
C5	Mys Teriberskiy	69°17'51.0"N, 35°57'18.0"E	Outbound traffic (away from the White Sea) only.
C6	Ostrov Bol'shoy Oleniy	69°16'51.0"N, 35°57'06.0"E	Inbound traffic (toward the White Sea) only.

Barents Sea and Beloye More (White Sea) Reporting System—Reporting Points (Control Points)			
No.	**Name**	**Position**	**Remarks**
C7	Ostrov Kil'din (E part)	69°20'00.0"N, 34°45'54.0"E	Outbound traffic (away from the White Sea) only. Also covers Murmansk VTS.
C8	Mys Teriberskiy	69°19'00.0"N, 34°45'12.0"E	Inbound traffic (toward the White Sea) only. Also covers Murmansk VTS.
D1	Mys Svyatoy Nos	68°20'00.0"N, 39°30'03.6"E	Inbound traffic (toward the White Sea) only.
D2	Mys Chernyy	68°22'06.0"N, 39°35'00.0"E	Outbound traffic (away from the White Sea) only.
D3	Mys Bol'shoy	68°00'00.0"N, 40°36'00.0"E	Inbound traffic (toward the White Sea) only.
D4	Mys Svyatoy Nos	68°04'00.0"N, 40°31'30.0"E	Outbound traffic (away from the White Sea) only.
D5	Mys Orlov-Terskiy Tonkiy	67°37'00.0"N, 41°16'48.0"E	Inbound traffic (toward the White Sea) only.
D6	Mys Bol'shoy Gorodetskiy	67°25'24.0"N, 41°27'00.0"E	Outbound traffic (away from the White Sea) only.
D7	Mys Zimnegorskiy	65°32'42.0"N, 39°28'00.0"E	Inbound traffic (toward the White Sea) only.
D8	Mys Zimnegorskiy	65°18'12.0"N, 39°35'36.0"E	Outbound traffic (away from the White Sea) only.
D9	Ostrov Mud'yugskiy	65°00'00.0"N, 39°57'48.0"E	Inbound traffic (toward the White Sea) only.
D10	Ostrov Mud'yugskiy	65°01'00.0"N, 40°02'00.0"E	Outbound traffic (away from the White Sea) only.
D11	Mys Orlov-Terskiy Tonkiy	66°51'48.0"N, 41°33'00.0"E	Outbound traffic (away from the White Sea) only.
E1	Mys Nikodimskiy	66°11'12.0"N, 40°01'54.0"E	Inbound traffic (toward the White Sea) only.
E2	Mys Nikodimskiy	65°57'24.0"N, 38°23'00.0"E	Outbound traffic (away from the White Sea) only.
E3	Ostrov Zhizhginskiy	65°20'06.0"N, 37°00'00.0"E	Inbound traffic (toward the White Sea) only.
E5	Ostrov Zhizhginskiy	65°06'00.0"N, 36°35'00.0"E	Outbound traffic (away from the White Sea) only.
P0	Mys Zemlyanoy	69°54'36.0"N, 31°00'00.0"E	Inbound traffic (toward the White Sea) only.
P1	Mys Zemlyanoy	70°07'12.0"N, 31°38'00.0"E	Inbound traffic (toward the White Sea) only.
Note.—Reporting Points (Control Points) C7 and C8 are also covered by the Kol'skiy Zaliv-Murmansk VTS system (see paragraph 1.15).			

Navigation and operation of vessels in the inner waters and territorial sea are regulated by Radio Technical Post (RTP) stations.

Foreign vessels are permitted to enter the White Sea (Beloye More) at Reporting Point C only if notification of entry has been advised by the vessel's agent 4 hours in advance.

When passing the Reporting Points (Control Points), vessels must call the nearest RTP station on 141.25 MHz or VHF channel 16 and state the following:

1. Name and call sign.
2. Time of passing the Reporting Point.
3. ETA at the next Reporting Point.

Vessels passing Reporting Point C and the first Reporting Point on departure from a port must state, in addition to the information above, the following:

1. Flag.
2. Port of destination.
3. Nature of cargo (dangerous or otherwise).
4. Type of propulsion (usual or nuclear).
5. Port of registry.

Vessels within the 20-mile limit from the coast must maintain a continuous listening watch on VHF channel 16.

Vessels may obtain navigational and meteorological information from the nearest RTP on 141.25 MHz or VHF channel 16.

Caution.—When navigating between Jakobselv and Guba Pechenga, vessels should not approach the land nearer than 3 miles, unless absolutely necessary, as the survey of this part of the coast is incomplete. The tidal currents here attain a velocity of 1.5 to 1.8 knots.

There are extensive fishing grounds lying along the Murmanskiy coast. The fishermen frequently mark their fishing grounds, which may easily be mistaken for indications of shoal water.

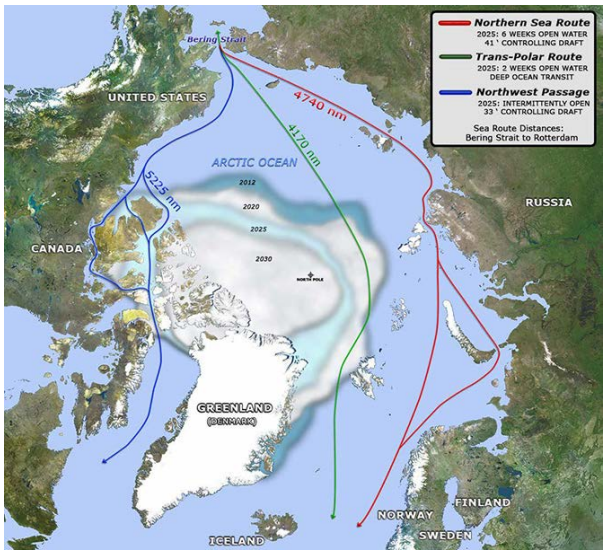
Local magnetic anomalies have been experienced along Murmanskiy Bereg E of the N end of Poluostrov Rybachiy.

Vessels are warned to exercise care when approaching the coast in foggy weather.

For information concerning Regulated Areas, Former Mined Areas, and Magnetic Variation, see Pub. 180, Sailing Directions (Planning Guide) Arctic Ocean.

The remains of the wreck of the Russian submarine Khursk lies in position 69°37'N, 37°35'E. A circular area, with a radius of 6 miles and centered on this position, surrounds the

wreck and has been declared dangerous to navigation due to the possibility of explosive debris on the sea bed.



Arctic Passage Routes

A Norwegian Vessel Traffic Service (Vardo VTS) system has been established off the coast in an area lying W of the Russian border. All tankers, ocean-going tugs, and other vessels over 5,000 gt are requested to contact the VTS Center upon entering these waters. For further information, see Pub. 182, Sailing Directions (Enroute) North and West Coasts of Norway.

A series of Traffic Separation Schemes (TSS) and Recommended Routes, which may best be seen on the chart, are located off the Norwegian coast in an area lying W of the Russian border. All tankers, including gas and chemical vessels, and all other cargo vessels of 5,000 gt and over on international voyages should use these routes. The easternmost TSS lies centered about 27 miles NNE of Vardo (70°23'N., 31°05'E.). For further information, see Pub. 182, Sailing Directions (Enroute) North and West Coasts of Norway.

Navigation is prohibited in a circular area, with a radius of 0.5 mile centered on position 69°22.6'N, 33°49.6'E; this area lies close E of the TSS about 3.5 miles W of Ostrov Kil'den.

Two mooring buoys are located in position 69°59.4'N, 35°55.6'E.

Two firing practice areas are located of the coast of Murmanskiy Bereg between Mys Teriberskiy (69°15'N., 35°09'E.) and Mys Chernyy (68°22'N., 38°39'E.).

Northern Sea Route (NSR)

Northern Sea Route

1.2 The Northern Sea Route (NSR) comprises all the routes from the Barents Sea to the Chukchi Sea and the Bering Strait that are suitable for shipping. It includes the Arctic Seas and the part of the Arctic Ocean that are delineated by the Russian economic zone. Over the past few years the Northern Sea Route has seen an increase in shipping. In 2013, the usage of the Northwest Passage along the coast of Canada and the Northern Sea Route along the coast of Russia marked the first known instance of a vessel using both passages in the same season. With the Arctic holding up to 20% of the world's remaining technically recoverable hydrocarbons, the push for resources should be seen as a main driving force behind the militarization of the theater, which looks increasingly unavoidable. Russian Search and Rescue (SAR) capabilities include the opening of a SAR facility in Naryan-Mar on the Barents Sea with proposed facilities for Murmansk, Arkhangelsk, Dudinka, Pevek, Vorkutta, Nadym, Anadyr, Tiksi, and Provideniye. The NSR is divided into E and W regions, as follows:

1. **West Region.**—Extends from the longitude of Cape Zhelaniya, the E coast of the Novaya Zemlya archipelago, and the W boundaries of Matochkin Strait, Kara Strait, and Yugorskiy Strait to longitude 125°E. It includes the Yenisei River to the port of Dudinka (69°24'N., 86°10'E.), the Khatanga River to the port of Khatanga, and the Ob Gulf to a line joining Cape Kamenniy and Capr Trekbugorniy.
2. **East Region.**—Extends from latitude 125°E to the parallel of Dezhnev Cape in the Bering Strait, including the Kolyma River to the port of Zelyonyi Mys.

Vessels wishing to transit the NSR must first contact the Northern Sea Route Administration (NSRA) to understand the regulations for navigating the waters of the NSR. See the table titled Northern Sea Route Administration—Contact Information.

The NSRA web site contains a significant amount of information, in both English and Russian, including the following:

1. The application and other paperwork for a vessel to request permission to navigate in the NSR.

2. Current vessel movement information.
3. Icebreaker/pilotage information.
4. Navigational information.
5. Ice and weather forecasts.
6. Search and rescue contact information.
7. Pollution reporting contact information.

The NSRA is responsible for the following functions within the waters of the NSR:

1. Receiving and evaluating applications to transit the NSR and issuing permission to transit.
2. Issuing certification of ice pilotage.
3. Researching weather, ice, navigational, and other conditions.
4. Coordinating installation of aids to navigation and hydrographic survey operations.
5. Assisting in search and rescue operations.
6. Assisting in resolving consequences of pollution from vessels of harmful substances, sewage, or garbage.
7. Providing information service for the waters of the NSR, such as organizing navigation, developing navigation requirements, etc.
8. Making recommendations regarding routing, the use of the icebreaking fleet, and navigational conditions.
9. Accessing and providing hydrographic and meteorological forecasts and ice analysis.

Northern Sea Route Administration—Contact Information	
Mailing address	Northern Sea Route Administration 35 Shkolnaya Street Moscow, Russia 109544
Telephone / Facsimile	7-495-626-1069
E-mail	apps@nsra.ru (Admission applications)
	info@nsra.ru (Daily Captain's Report)
	main@nsra.ru (All other messages)
Web site	http://www.nsra.ru

Finally, the NSRA is responsible for issuing a permit for a vessel to sail on the NSR. In the event that the NSRA refuses to grant permission for a vessel to sail on the NSR, a notification, signed by the head of the NSRA, indicating the reasons for refusing to grant permission, is sent by e-mail to the applicant.

NSR Icebreaker Contact Information	
Admiral Makarov	
Call sign	UGSN
MMSI	273148110
INMARSAT-C	427302057
INMARSAT F77	764626488
	764626489
	764626490
INMARSAT F77 facsimile	764626491
Vaigach	
Call sign	UBNY
MMSI	273133100
INMARSAT F77	764715293
	764715295
INMARSAT F77 facsimile	764715296
Talmyr	
Call sign	UEMM
MMSI	273135100
INMARSAT F77	761142068
	761142070
INMARSAT F77 facsimile	761142071
Yamal	
Call sign	UCJT
MMSI	273132400
INMARSAT F77	761136943
	761136945
INMARSAT F77 facsimile	761136946
50 Let Pobedy	
Call sign	UGYU
MMSI	273316240
INMARSAT-C	427351996
INMARSAT F77	764660542
	764660543
	761120938
INMARSAT F77 facsimile	761120939
Arktika	
Call sign	UCZC
MMSI	273210920
INMARSAT-C	427313453
	427313437

Vital to keeping the NSR open are fleets of icebreakers, which will serve as escorts. Seven icebreakers are available for use in transiting the NSR. These are operated by the Russian government. For contact information, see the table titled **NSR Icebreaker Contact Information**.

Pilotage.—Pilotage is compulsory. Pilots should be ordered through the agents with the initial request made 12 hours in advance of ETA and confirmed when 4 hours away, unless stated otherwise in the station entry.

Ice Pilot Services are described, as follows:

1. Ice Pilots will board a vessel at a sea port of the Russian Federation or at a foreign port from which the vessel is proceeding to the NSR water area as well as at the Ice Pilot boarding location.
2. Ice Pilots will disembark a vessel at a sea port of the Russian Federation or at a foreign port which is the

vessel's first port of call after transiting the NSR water area as well as at the pilot disembarkation point.

3. Vessels should notify the organization providing ice pilotage of the arrival time at the ice pilot boarding position 24 hours, 12 hours, and 3 hours prior to arrival.

Contact Information.—See the table titled **Ice and Polar Pilots—Contact Information**.

Ice and Polar Pilots—Contact Information	
Ice Pilots	
Telephone	7-152-473-572
Facsimile	7-152-473-572
E-mail	antipin.valer@yandex.ru
Web site	http://www.murmansksma.com
Polar Pilots	
Telephone	7-122-723-295
Facsimile	7-122-756-955
E-mail	stvor@vitino.spb.ru
Web site	http://www.polarpilots.ru

Convoy Communications.—Vessels sailing as part of a convoy along the NSR shall abide by the following requirements:

1. Cargo vessels as part of a convoy can use their HF mode radio transmitters only with the permission of the leading icebreaker. Such permission shall be agreed using the VHF mode inter-convoy communication system.
2. Inter-convoy radio communication in the NSR is to be carried out only on VHF.
3. Vessels moored at the roadsteads of sea ports should maintain a continuous listening watch on VHF channel 16.
4. The reading of notices from icebreakers and liaison with them shall be carried out at 0900 and 1800 Moscow time on the RT frequency 4149 kHz.

Regulations.—Reporting requirements for vessels using the NSR are, as follows

1. Vessels on approach to the water area of the NSR should report at the following times:
   a. From the W—when crossing meridian 33°E.
   b. From the E—when crossing parallel 62°N or meridian 168°W.
   c. Immediately following departure from a sea port of the Russian Federation situated in the Barents Sea, the White Sea, or the Bering Sea.
2. Vessels should inform the Northern Sea Route Administration (NSRA) of the time and geographic coordinates of the transit through the latitudes and longitudes required in item (1) above or the departure time from port and also send the following information:
   a. Vessel name.
   b. IMO number.
   c. Destination.
   d. Maximum operating draft in meters.
   e. Cargo type, including the amount in tons.
   f. Hazardous cargo, if any, presence, class, and amount in tons.
   g. Fuel supply in tons at time of reporting.
   h. Fresh water supply, taking into account the replenishment from the vessel's desalination plant (number of days is specified during which vessel can navigate without replenishment of the foodstuff supply and of other sorts of provision).
   i. Number of crew and passengers.
   j. Information about any mechanical and/or technological failure.
   k. Planned time of entrance into the water area of the NSR.
3. Vessels entering the water area of the NSR (W boundaries of the straits of Novaya Zemlya, the meridian of Cape Zhelaniya, the parallel of Dezhnev Cape, the meridian 168°58'37.2''W) should inform the NSRA of the time, geographic coordinates, course, and speed at the moment of reporting, as well as vessels planned ETD from the water area of the NSR, including calling at inland waterways or at the time of calling at a sea port within the area.
4. Vessels leaving a sea port of the Russian Federation located in the water area of the NSR or entering the area from an inland waterway should inform the NSRA of the departure time or entry in addition to fulfilling the requirements of item (3) above.
5. Vessels moving along the NSR need to report after the following times:
   a. Crossing the latitude and longitude as described in item (3) above.
   b. Departure from a sea port of the Russian Federation located in the Barents Sea, the White Sea, or the Bering Sea.
   c. Departure from a sea port of the Russian Federation located in the sea area of the NSR.
   d. Entrance to the area from an inland waterway and before departure from the water area of the NSR once a day at 1200 Moscow time, vessels should send the information listed in paragraph 5e, correct at the time of sending:
   e. The required reports listed in paragraphs 5a through 5d should be in the body of the e-mail and not as an attachment. The e-mail format is 12-point Times New Roman. The following information should be included:
      i. Vessel name and IMO number.
      ii. Vessel's position (latitude and longitude).
      iii. Planned entrance time into the NSR area, the exit time from the NSR area, or the planned time of arrival at a port in the NSR area.
      iv. Course (to the nearest degree).
      v. Speed (to the nearest 1 knot).
      vi. Type of ice, thickness (in meters), and ice compactness (in numbers).
      vii. Air temperature (°C to the nearest degree).
      viii. Water temperature (°C to the nearest degree).

ix. Wind direction (within 1°)
x. Wind speed (to the nearest meter/second, approximately 2 knots).
xi. Visibility (nautical miles to the nearest nautical mile).
xii. When vessel moves in open water—wave height (in meters) with an accuracy of 1m. If vessel is in ice and there is no seaway, state "NO."
xiii. Quantity of heavy fuel and light fuel on board (in metric tons).
xiv. Fresh water on board (in metric tons).
xv. Information about any accidents involving crew members, passengers, or vessel. If none, state "NO."
xvi. Information about any failure to navigational equipment. If none, state "NO."
xvii. Other information regarding any safety of navigation and protection of the marine environment issues due to pollution from vessel. If none, state "NO."

6. During navigation in the sea area of the NSR vessels calling at a sea port of the Russian Federation should inform the NSRA the time of arrival, including the name of the port.
7. When leaving the sea area of the NSR vessels should inform NSRA of the time, geographic coordinates, route, and speed of the vessel at the time of reporting.
8. Masters of vessels navigating the NSR who discover a danger to navigation should immediately transmit an unscheduled warning to:
   a. All vessels at sea.
   b. Saint Petersburg FSI HE by e-mail (hvdep@hydrograph.spb.ru), also sending an e-mail copy to ibm@hydrograph.spb.ru.
   c. Moscow FSI (NRSA).

Radio Radar Reporting.—Vessels should report the following information when they are within 20 miles of the Radio Radar Departments (RRD) of the Boarder Service of Russia (FSB) area described in the table titled **Radio Radar Reporting Areas**:

1. Vessel name, ID number (if any), flag, and port of registration.
2. Vessel's intended route, master's surname, and number of crew members on board.
3. Type of vessel propulsion and type of cargo.

Additional information will be communicated to and from the RRD during this time:

1. The RRD will communicate the ongoing situation on the vessel's route.
2. Communication with the RRD must be carried out in accordance with the rules established by the Maritime Mobile Satellite Radio Service.
3. Communication with the RRD should be via VHF channel 16 with further information carried out on an agreed working channel.

Radio Radar Reporting Areas	
RRD Call Signal	**Position**
Lebed-Amderma	69°45'N, 61°40'E
Lebed-Kharasavey	71°07'N, 66°45'E
Lebed-Sabetta	71°15'N, 72°04'E
Lebed-Kamenniy	68°27'N, 73°35'E
Lebed-Dikson	73°30'N, 80°30'E
Lebed-Tcheluskin	77°43'N, 104°14'E
Note.—All stations operate 24 hours.	

Navigational Season.—The Northern Sea Route is normally open to navigation from the end of July to the end of October; the dates vary each year with the prevailing ice conditions. Vessels are required to be ice-strengthened.

Except for a period of up to 6 weeks, during May and June, when the river ice drifts out, continuous navigation has been made possible, since 1979, with icebreakers along the W part of the route, up to Dudinka (69°24'N., 86°10'E.) on Reka Yenisey.

The Barents Sea is navigable up to 75°N and as far E as 50°E by the middle of June. Towards the end of June the W coast of Novaya Zemlya, between Gusinaya Zemlya (71°30'N., 51°40'E) and Poluostrov Admiralteystva, 220 miles NNE, begins to clear of ice. The entire W coast of Novaya Zemlya is ice-free in early July, when the whole Barents Sea S of 77°N is navigable.

Many of the narrower channels and fjords among the Arctic islands are perpetually ice-bound, but the larger ones are generally free, at some point, every season.

In much of the Northern Sea Route, local knowledge is essential for safe passage. The remoteness and inaccessibility of the region limits much of the chart coverage and detail; information may be quite outdated.

Jakobselv (Reka Yakobsel'v) to Guba Pechenga (Petsamonvuono)

1.3 Jakobselv (Reka Yakobsel'v) (Reka Vor'yema) (69°47'N., 30°50'E.) forms the boundary between Norway and Russia. The coast E of the mouth of this river is generally bold and of moderate height. The river flows between steep hills and has many rapids. It is navigable only by boats up to 3 miles from the mouth, which is narrow and dries. A bank, with depths of less than 18m, extends 0.6 mile NNE of a point on the W side of the mouth of the river.

An iron perch marks some rocks, awash, lying 0.3 mile NNE of the above point. A stone chapel (King Oscar II Chapel) with a tower, stands on the W side of the mouth of the river, 0.5 mile SE of the W entrance point. This chapel is prominent from seaward and from N appears as if it is standing on the sandy foreshore.

King Oscar II Chapel

The seaward section of the boundary is indicated by the alignment of two lighted beacons, bearing 208°, standing on the W side of the river. A spar buoy is moored 0.5 mile N of the E entrance point and close E of the alignment.

Jakobselv Range Lights

Forward Range Light (bottom)—Rear Range Light (Top)

Anchorage, exposed to N winds, may be obtained, in depths of less than 20m, in a fairly extensive area fronting the mouth of the river. Small craft may anchor farther inshore, in depths of 6 to 8m, sand.

Lapinmukka (Finmanskoe), a cove, lies 0.5 mile E of the mouth of the Jakobselv. Anchorage, in depths of 7 to 9m, is available for vessels with local knowledge, but the roadstead is exposed to N winds and a swell at times. The entrance is encumbered by an islet, 12m high, in addition to several rocks and shoals.

Stolbova, 0.8 mile E of Lapinmukka, is a cove used by boats, the entrance of which is protected by two steep-sided islets.

Banki Aynovskiye (69°55'N., 30°17'E.) lies centered about 11 miles NE of the mouth of the Jakobselv and has a least depth of 11m.

Aaresvuono (69°47'N., 30°56'E.), a small inlet, lies 2 miles E of Jakobselv. It is about 0.4 mile wide at its entrance. Due to its great depth, this inlet is not recommended as an anchorage. If necessary, a vessel may anchor about 0.2 mile from the head of the inlet, in depths of 29 to 40m, although this anchorage is unprotected from N winds.

Suolavuono lies 2.8 miles ESE of Aaresvuono and extends 1 mile in a SSE direction from its entrance. A river flows into its head. A rock, which dries and is steep-to, lies close N of the E entrance point and a small group of drying rocks lies near the center of the inlet. Small vessels can obtain anchorage in the inlet, in depths of 8 to 10m, sand and clay. The anchorage is sheltered from N winds and comparatively free from swells.

Dolgaya Shel' (69°44'N., 31°13'E.), a narrow inlet, is entered 4 miles SE of Guba Bazarnaya (Suola Vuono). The inlet extends 2 miles in a SSE direction between two steep hills. From the sea, it resembles a gorge. The mouth of the inlet is very shallow, but inside the inlet it is very deep.

Nurmensatti (69°42'N., 31°25'E.), a peninsula, lies 4.5 miles SE of the entrance to Peuravuono. It is connected to the mainland by a narrow isthmus, on which there is a village. On each side of the isthmus there is a bay, the NW and larger of the two is Pohjoismukka.

A rock, with a depth of less than 2m, lies 0.1 mile N of the W entrance point of Pohjoismukka. The fairway of the entrance lies E of this rock and has depths of 7 to 9m. Anchorage may be taken in Pohjoismukka, in depths of 9 to 16m, sheltered from all winds.

Etelamukka, the SE bay, provides anchorage for small vessels with drafts of not more than 3.6m. The bay extends 0.2 mile inland. There are three small piers at the head of the bay, available for small vessels at HW only.

Guba Pechenga (Pechengskaya)

1.4 Guba Pechenga (Pechengskaya) (69°41'N., 31°27'E.) is entered between two granite hills, which are almost bare except for some patches of moss. The W entrance point, 0.8 mile SSE of Nurmensatti, is high, steep, and dark in color. Numeroniemi, from which a light is shown, is the E entrance point and is much lower and lighter in color. A shoal, marked by a buoy, lies 0.8 mile N of Numeroniemi. Numerolaassa, an islet, lies 0.2 mile NNW of the light and is almost connected to Numeroniemi by foul ground.

Guba Pechenga consists of four reaches. The first reach is 3.5 miles long and runs in a general SSW direction. Its shores are steep-to, except for a small and flat island, which is located off the W side, about 1.8 miles SSW of Numeroniemi. The second reach takes a sharp turn to the W and forms Linakhamari Bay. A beacon stands on the E extremity of Veneniemi, the W entrance point of the third reach which extends 1 mile S from the bay. The fourth reach continues to the head of Guba Pechenga.

Range lights are shown from the S end of the first reach and indicate the entrance fairway.

Trifona (69°36'N., 31°16'E.) is situated on the N side of the mouth of a river which flows into the W side of the fourth reach. There is a pier, 61m long with a depth of 4.5m alongside. There is also good anchorage off this settlement.

Liinakhamari (69°42'N., 31°22'E.) is situated in a bay on the W side of Guba Pechenga at the head of the second reach. Liinakhamari was formerly a Russian naval submarine base and is now used for aquaculture.

Aquaculture of Liinakhamari

Ice.—Ice piles up in the third reach, but access to the inlet is possible throughout the winter. The inlet is clear of ice about the beginning of June. However, in winter the ice does not drift out of the inlet; in the spring, it breaks up during strong winds and is carried out with the current from the river. The harbor is free of ice year-round.

Depth—Limitations.—The government wharf is 46m long and has a maximum depth of 6m alongside. During NW winds, the wharf is affected by heavy swell. A pier, 183m long with depths of 7.1 to 7.6m alongside, is situated on the NW side of the harbor. There is also a coal wharf, with a depth of 8.5m alongside, and an oil wharf, with a depth of 7.6m alongside.

Pilotage.—No pilots are available, but assistance may be obtained from the harbormaster. Local knowledge is required.

Anchorage.—An outer waiting area lies centered about 5.5 miles NW of the entrance to Guba Pechenga.

The usual anchorage for large vessels is in the second reach off Linakhamari, where there are depths of 20 to 35m between the wharf and the pier, about 0.2 mile offshore. The anchorage is sheltered from all winds, but is subject to swells. Vessels usually secure their sterns to the shore.

Directions.—Recommended route tracks (inbound and outbound), which may best be seen on the chart, lead from seaward to the entrance of Guba Pechenga. They start at a position located about 12 miles NNW of **Mys Nemetskiy** (69°57'N., 31°7'E.5). The inbound track leads in a SE direction for 7 miles and then in a SSW direction for 15 miles. After passing between Ostrov Malyy Aynov (69°49'N., 31°38'E.) and the mainland, the track continues in a SW direction for 5 miles and joins the entrance range.

Caution.—A local magnetic anomaly exists in the vicinity of the entrance to Guba Pechenga. It is reported that the normal variation may be increased by 9 to 18 degrees.

A prohibited anchorage lies at the N end of the third reach and a submarine cable, which may be seen on the local chart, lies in the center of the second reach and along the W side of the first reach.

Guba Pechenga (Pechengskaya) to Mys Nemetskiy

1.5 Guba Ambarnaya (Pikku Maattivuono) (69°40'N., 31°30'E.), is entered between Numeroniemi and Mys Krikun, a high and bold point 0.5 mile NE. The shores of the inlet are steep and clear of dangers. The inlet is exposed to N winds and the only sheltered anchorage is in a cove at Paitahamina on the W side, 0.5 mile within the entrance. There is a small pier at the head of the cove.

Guba Malaya Volokovaya (Maattivuono) (69°41'N., 31°43'E.), an inlet on the SW side of Poluostrov Sredniy, is entered between Hirvasniemi, 2.5 miles ESE of Mys Krikun, and Valasniemi (Mys Volokovyy), 2 miles NNE. The inlet is 4 miles long, extends in a SE direction, and from its 2 mile wide entrance it narrows steadily toward the head, where the width is about 0.5 mile. The inlet is reported not to freeze over in the winter. No anchorage is available.

Mys Zemlyanoy (Pummanginniemi) (69°50'N., 31°47'E.), located 7.2 miles NNE of Valasniemi, is the N extremity of Poluostrov Sredniy. A light is shown from the point. Gora Zemlyanaya (Pummanki), a hill 200m high, stands 1 mile S of the point and is prominent.

Ostrov Bol'shoy Aynov (Heinasaari) (69°50'N., 31°35'E.), an island lying 4 miles W of the N extremity of Poluostrov Sredniy, is 20m high and can be seen in clear weather from a distance of 10 miles. A light, equipped with a radiobeacon, is shown from a square tower, 9m high, standing near the SW end of the island.

Ostrov Malyy Aynov (Peini Heinasaari), 24m high, lies 1 mile SE of Ostrov Bol'shoy Aynov. A light is shown from the S part of this island. The bottom around Ostrov Malyy Aynov is rocky and there is no suitable anchorage.

Anchorage can be obtained, during N winds, off the SW side of Ostrov Bol'shoy Aynov, in a depth of 37m, sand. Anchorage may also be obtained off the E side of Ostrov Bol'shoy Aynov, but it is not recommended as the bottom is mostly sand and shingle.

Guba Bol'shaya Volokovaya (Pummanginvuono) is entered between Zemlyanoy and Mys Koroviy, 3.5 miles ENE. It is a large, open and exposed bay. It has been reported that the bay never freezes except for an icefoot which forms around the head between the high and low water marks. The bay is 3 miles wide at its entrance and extends SE for a distance of 7 miles. Pummanki, a settlement, stands on the W shore of the bay, 4.8 miles from the entrance. There is a small pier at the settlement and it is used mainly by fishing vessels. A rocky patch, marked by a spar buoy, lies about 1 mile NNE of the settlement. A similar buoy marks the E side of the patch on the N side of the approach to the pier. The bay does not afford safe anchorage as it is open NW and the depths are considerable, but temporary anchorage may be obtained off the settlement E of the schoolhouse and about 0.3 mile offshore, in depths of 9 to 13m, sand and clay.

Mys Kiyskiy (Pitkaniemi) lies 3.5 miles NNW of Mys Koroviy. A light is shown from a pyramid structure, 12m high, standing on the point. The coast between forms a bay known as Kervannon Lahti. The bay is open to the W, but some protection is afforded by the islets lying along its outer part.

Ostrov Bol'shoy Kiy (Lunnisaaari), 13m high, lies 1.8 miles NNW of Mys Koroviy. The island is barren and fringed by a rocky reef. A rock, with a depth of 0.3m, lies 0.8 mile SE of the island and is marked by a buoy.

Ostrovok Malyy Kiy (Laassat), an islet, lies 0.8 mile SSW of Mys Kiyskiy. A reef, partly above water, extends about 0.8 mile NW from the islet. The best anchorage is NE of Ostrov Bol'shoy Kiy, in a depth of 11m, good holding ground, midway between the island and the mouth of Reka Chernaya, 1.2 miles NE. Small vessels may anchor closer to the river mouth. A village stands NW of the entrance to the river. The anchorage may be reached by three channels, the safest and recommended passage being the W channel, between Ostrov Bol'shoy Kiy and Ostrovok Malyy Kiy.

Vaydagubskiy Light

Mys Nemetskiy (69°57'N., 31°57'E.), the NW extremity of Poluostrov Rybachiy, lies 8.2 miles NNE of Mys Kiyskiy. The coast between consists of black cliffs, 128m high. A light, also known as Vaydagubskiy, is shown from a prominent tower, 29m high, standing on the point.

Mys Nemetskiy to Motovskiy Zaliv

1.6 Poluostrov Rybachiy (69°45'N., 32°35'E.) is 30 miles long and 12 miles wide at its broadest point. It has relatively even contours and low hills in contrast to the adjacent part of the mainland, with its lofty steep granite and rugged mountains. The nature of the bottom along and near the NE coast of the peninsula is made up of small stones, sand, and shells.

Guba Vayda (69°56'N., 32°00'E.) lies 2 miles ESE of Mys Nemetskiy and is entered between Mys Tonin and Mys Kekurskiy, 1.5 miles E. A beacon stands 0.5 mile W of Mys Tonin and another beacon stands on a hill which overlooks the head of the bay, 1.5 miles SW of Mys Tonin. A stranded wreck lies close E of Mys Tonin.

Mys Kekurskiy, 64m high, is prominent due to its black, sharp-pointed and precipitous cliffs which resemble pinnacle rocks. A stranded wreck lies close SW of the point and another lies at the head of the bay. The head of the bay is shallow. The outer limit of the dangers on the E side of the bay is marked by a buoy, and the outer limit of those on the W side of the bay is marked by two buoys. Two beacons situated at the head of the bay, in range about 209°, lead to the entrance of the bay. Two small piers, suitable only for small craft at HW, are situated on the W side of the bay.

Anchorage can be obtained, in a depth of 18m, just S of a line joining the two entrance points. A more sheltered anchorage, but with poor holding ground, lies on the range about 0.2 mile SSW of the above anchorage.

Guba Skorbeyevskaya (69°53'N., 32°15'E.), 4.2 miles SE of Mys Kekurskiy, is entered between high and rugged points. A reef extends fronts the NE side of the NW entrance point. The cove has low and sandy shores, and some remarkable terrace formations at its head. A conspicuous beacon stands 1.8 miles ESE of the E entrance point.

Guba Zubovskaya (69°48'N., 32°36'E.) recedes 1.5 miles SW between Mys May-Navolok and Mys Lazar, 4.5 miles SE. A group of low, rocky islets divides the bay into three parts. There are general depths of 6.5 to 28m between the dangers in the three parts of the bay. A beacon used to stand on Mys Lazar but was destroyed (2012); a prominent beacon stands on the easternmost islet of the group.

Anchorage for vessels of moderate draft is best obtained in the SE part of the bay, 1 mile SSE of the above beacon, in a depth of 13m.

Caution.—The bay should not be entered without local knowledge.

A stranded wreck is reported (2009) to lie close N of Mys Lazar and W of a charted obstruction.

Guba Laush (69°44'N., 33°03'E.), entered between Mys Laush, on which a light and radiobeacon are situated, and a point nearly 1 mile W, indents the coast for a distance of 1 mile. There is an anchorage, in a depth of 15m, sand bottom, just inside the entrance. The bay is sheltered except from N winds.

Caution.—A submarine cable lies off the coast of Poluostrov Rybachiy and may best be seen on the chart.

A prohibited area, which may be seen on the chart, extends up to 3 miles offshore and includes the waters SE of Guba Skorbeyevskaya and within Guba Zubovskaya.

1.7 Mys Tsypnavolok (69°43'N., 33°08'E.) is located 2.5 miles SSE of Mys Laush. The coast between is low, rocky, black, bold, and rises gradually to Mys Voronkovskiy, 1 mile SE of Mys Laush. Mys Tsypnavolok is the extremity of a black tongue of land projecting 0.8 mile SE from the general line of the coast. It is very prominent from the N, but from other directions can only be identified by its color. A reef, the inner part of which dries, extends fronts the SE side of the point.

Tyspnavolokskiy Light

Tsypnavolokskiy Light is shown from a prominent round tower, 32m high, standing 1.2 miles NW of Mys Tsypnavolok. A radiobeacon is situated close to the light.

Caution.—Three wrecks, all in depths of more than 20m, are located approximately 5 miles ESE of Mys Tsypnavolok in the following positions:

a. 69°40’34”N, 33°12’47”E.
b. 69°39’53”N, 33°15’54”E.
c. 69°40’00”N, 33°17’00”E.

Guba Tsypnavolok (69°43'N., 33°08'E.), entered directly W of the point of the same name, is the largest bay indenting the E coast of Poluostrov Rybachiy. A fishing village at the N end of the bay is the largest on the peninsula. Two islets, being steep-to on their NE sides, lie on the coastal bank on the SW side of the bay. Anchorage is best obtained at the N end of the bay, 0.4 mile W of Mys Tsypnavolok, in a depth of 14m, sheltered from winds.

Guba Bol’shaya Korabelnaya (69°41'N., 33°06'E.) is a cove entered between Mys Sergeyeva, 2.5 miles S of Mys Tsypnavolok, and Mys Tipunova, 0.5 mile farther SW. A spit, with a depth of 5.5m at its outer end, extends 0.3 mile SE from Mys Sergeyeva. An above-water rock, surrounded by foul ground, lies 0.4 mile SE of Mys Tipunova. Anchorage can be taken, in depths of 8 to 11m, sand and mud, in the middle of the cove, which is open SE. Local knowledge is required.

Mys Bargoutnyy (69°39'N., 33°06'E.) is prominent and can be identified by its lofty terraced and bold appearance, resembling the bottom of a stranded vessel. Mys Bashenka, 0.8 mile SSW of Mys Bargoutnyy, is also very prominent and has a remarkable pinnacle rock, which resembles a small tower, lying close SE of it. A prominent tower stands 1.5 miles SW of Mys Bashenka.

Motovskiy Zaliv

1.8 Motovskiy Zaliv (69°32'N., 32°42'E.), on the S side of Poluostrov Rybachiy, is entered between Mys Sharapov, 5.2 miles SW of Mys Bargoutnyy, and Mys Vyyev-Navolok, 8.2 miles SSE. The gulf is deep and free from dangers, and its shores are mostly steep-to. The bottom is mostly rock near the shore and mud toward the middle. The N shore of the gulf consists of slate cliffs covered with green tundra and brush. The S shore is the higher, in some places rising in sheer, bare granite cliffs. With the exception of Motka Guba, the N shore is practically unindented, whereas the S shore contains four principal bays.

Caution.—Vessels using the inshore traffic zone to enter Motovskiy Zaliv must give way to vessels leaving the inlet.

Mys Sharapov (69°35'N., 32°57'E.), forming the E point of the N shore of Motovskiy Zaliv, has steep, black cliffs which descend in three slopes to the gulf from a height of 76m.

Mys Gorodetskiy (Mys Malyy Korabel’nyy) (69°34'N., 32°50'E.), 2.5 miles WSW of Mys Sharapov, protrudes prominently from the coast. This steep-to point consists of black cliffs which fall gradually into the sea. Rybachiy-Gorodetskiy Light is shown from a black pyramid, 12m high, standing on the point. A hummock lies 2.5 miles NNE of the point.

Rybachiy-Gorodetskiy Light

Caution.—A wreck in a depth of more than 20m lies in position 69°33'30"N, 32°51'06"E and is marked by buoy.

1.9 Guba Malaya Korabel'naya (69°35'N., 32°45'E.), the W of two coves, lies 1.8 miles WNW of Mys Gorodetskiy. There is anchorage for large vessels in the entrance to the cove, in depths of 27 to 33m. Guba Mocha, a cove 4.5 miles WNW of Mys Gorodetskiy, affords shelter to small craft during N winds in the middle of the entrance, in a depth of about 27m. Large vessels can anchor off the cove, in a depth of 33m.

Mys Eyna (69°36'N., 32°31'E.) lies 7 miles WNW of Mys Gorodetskiy and is marked by a light.

Guba Eyna, entered 2 miles WNW of Mys Eyna, indents the coast for a distance of 1.5 miles. A small village stands at the head of the bay. Banka Yeynovskaya has a least depth of 2.7m and extends from the E shore 0.5 mile SSW of the village. A stranded wreck lies about 0.3 mile from the head of the bay. Anchorage can be obtained by large vessels in Guba Eyna, S of Banka Yeynovskaya, about 0.3 mile off either the E or W shore. Small craft may anchor nearer the head of the bay.

Mys Motka (69°38'N., 32°11'E.), 4 miles WNW of the W entrance to Guba Eyna, is high, bold, and rounded. Some large, black rocks lie close inshore, 0.8 mile NW of Mys Motka and continue farther N. A light is shown from Mys Motka.

Caution.—A measured distance lies in the middle of the gulf between Guba Eyna and Mys Motka. It is indicated by three pairs of beacons on the N shore and the alignment of two beacons at the head of the gulf, bearing 292°.

An area, in which anchoring and fishing are prohibited, extends from the N shore of the gulf between the E entrance point of Guba Eyna and Mys Motka and may best be seen on the chart.

1.10 Guba Motka (69°40'N., 32°08'E.), entered between Mys Motka and a point 2.5 miles W, extends 5 miles N between Poluostrov Rybachiy and Poluostrov Sredniy. Mys Roka-Pakhta lies on the E side of Guba Motka, 2.8 miles within the entrance. Anchorage can be taken N of Mys Roka-Pakhta, in a depth of 28m, about 0.4 mile offshore.

Bukhta Ozerko (69°44'N., 32°08'E.), 2.2 miles long and having the appearance of an oval lake, is entered from the N end of Guba Motka through a narrow strait between Mys Larina, to the E, and Mys Litke, to the W. A spit, with a depth of 1.2m at its outer end, extends about 0.2 mile WNW from Mys Larina. A spit, covered with boulders, extends 0.2 mile NE from Mys Litke and a beacon stands near the outer end. Range beacons, bearing about 356°, indicate the fairway leading through the passage into Bukhta Ozerko.

Anchorage in Bukhta Ozerko is best obtained 0.4 mile N of the beacon on the W side of the entrance, in a depth of 20m, good holding ground. A small fishing village is situated on the E shore, N of Mys Larina. Bukhta Ozerko is icebound during severe winters.

1.11 Mys Vyyev-Navolok (69°27'N., 33°04'E.), the S entrance point of Motovskiy Zaliv and also the W entrance point of Guba Ura, is comparatively steep. It appears from the E as a group of islets and from the W as a distinct salient point. Some drying rocks lie about 0.2 mile NE of the point. A light and a radiobeacon are situated on the point.

Vyyev-Navolok Light

From Mys Vyyev-Navolok, the coast trends W for 2 miles forming the N end of a peninsula which separates Guba Ura, on its E side, from Guba Ara, on its W side. Ostrov Bol'shoy Arskiy, a low and barren island, lies in the middle of the entrance to Guba Ara. The NE end of the island is marked by a beacon. Two coves on the W side of Guba Ara, about 1.5 miles within the entrance, afford anchorage, in depths of 37 to 46m.

Ostrova Vichany (69°29'N., 32°39'E.), consisting of two islands and two above-water rocks, is located on the E side of the entrance to Guba Vichany. A beacon used to stand at the S end of Ostrova Vichany but was destroyed (2012).

Because of the considerable depths in Guba Vichany, there is no convenient anchorage.

Ostrov Blyudtse (69°30'N., 32°38'E.), a low, bare, and white saucer-shaped islet, lies 0.5 mile NW of Ostrova Vichany. It is bordered by drying rocks for a distance of about 100m. This islet, marked by a beacon, is very conspicuous because of its shape and color.

Ostrov Kuvshin (69°30'N., 32°32'E.) lies 2 miles WNW of Ostrov Blyudtse and has high, rocky, and steep shores. Its N extremity is marked by a light.

Guba Zapadnaya Litsa (69°29'N., 32°30'E.) is entered, by vessels of deep draft, between Ostrov Kuvshin and a point 0.5 mile S. This bay, 7 miles long, is a winding, much indented inlet with the width varying from 0.2 to 0.5 mile. A reef, with a depth of 5m, extends a little more than 0.5 mile NNE from the E entrance point. Owing to its great depths, Guba Zapadnaya Litsa does not afford good anchorage. The inlet freezes from the vicinity of Ostrova Lopatkina to the head from February to early May.

Ostrova Lopatkina consists of two high islands lying close to the SE shore of the inlet, 3.8 miles SW of the entrance. A light is shown at the N end of the NE island. Anchorage is available in the middle of a cove SE of the S island, in a depth of 30m, off a remarkable cliff on the SW shore.

Mys Pikshuyev (69°33'N., 32°27'E.) lies 3.8 miles NW of the entrance to Guba Zapadnaya Litsa. The point is low, sloping, and fronted by gray granite. A light is shown from the point and some prominent buildings stand on it.

Ostrovok Mogil'nyy, a 10m high islet, lies at the E side of the entrance to Guba Titovka, 6.8 miles WNW of Mys Pikshuyev. The passage S of the islet is shallow.

1.12 Guba Titovka (69°35'N., 32°04'E.) indents the SW shore of Motovskiy Zaliv for a distance of 3 miles. The bay has an average width of about 0.8 mile and depths of up to 92m. Both shores of the bay consist of high, gray granite cliffs. An isolated rocky patch, with a depth of 18.2m, and another, with a depth of 6.4m, lie 0.5 mile N and 0.5 mile SW, respectively, of Ostrovok Mogil'nyy at the E side of the entrance. Two islands lie on the W side of the entrance and are joined to the mainland by a shallow, impassable reef and to each other by a reef over which there is a passage with a depth of 3m.

Vessels of moderate size can anchor midway between the S side of Mys Lisiy and the drying bank at the head of Guba Titovka, in depths of up to 46m. Such vessels can also anchor in the SE corner of the inlet, in a depth of 35m.

Guba Kutovaya (69°37'N., 32°01'E.), which forms the head of Motovskiy Zaliv, is entered between a point on the mainland, 2.5 miles NW of Ostrovok Mogil'nyy, and the W entrance point of Guba Motka, 2 miles N. The shores of the bay are high, but slope gradually to the water's edge and are covered with tundra. A village stands on the W side of a small promontory on the S shore of the bay. Anchorage may be obtained 0.4 mile N of the village, in a depth of 27m, but the bay is subject to strong squalls. Small craft may anchor off the S shore.

Guba Ura

1.13 Guba Ura (69°26'N., 33°05'E.), an extensive inlet, is entered between Mys Vyyev-Navolok and Mys Medvezhiy, 5 miles ESE. This inlet indents the mainland coast for 12 miles, first SW and then S, and has the identical characteristics of the inlets leading from Motovskiy Zaliv. Its shores consist of high, steep granite hills which are bare at sea level, but are covered with tundra and white moss at higher elevations. Guba Ura freezes from Ostrov Shalim to its head from February to the end of April.

Ostrov Yeretik (Heretic Island) Light

The entrance of Guba Ura is divided into two arms by Ostrov Yeretik and Ostrov Shalim, the W arm being the deeper and wider. With the exception of the reef lying off Mys Vyyev-Navolok and the drying rocks off the SW tip of Ostrov Shalim, the W arm has depths of 18 to 253m, is free of dangers, and has steep-to shores. In the E arm, there is a least depth of 18m in the fairway entrance, but the passage between the E side of Ostrov Yeretik and the mainland is encumbered by numerous islets, rocks, and shoals. A light is shown from an islet lying 0.2 mile E of Ostrov Yeretik. In the arm proper, the shores are steep-to and there are depths of 14.6 to 110m. In the narrows, in the S part of the E arm, the fairway has a least depth of 7.9m and a width of only 137m. The passage through the narrows is indicated by range beacons, bearing 238°, which are situated at the W side of the islet. A light is shown from Ostrov Zelenyy at the head of Ura Guba, S of the range line.

Port Vladimir (69°25'N., 33°09'E.), a small and sheltered basin on the E side of Ostrov Shalim, is entered between the SW end of Ostrov Yeretik and a point 0.1 mile SW. Except in severe winters, the area is free of ice throughout the year. Small vessels can obtain excellent anchorage in the middle of the port, in depths of up to 20m. Port Vladimir was formerly a Soviet naval base but has since closed. Wrecks are found throughout the basin. The area is primarily used for commercial fishing.

Guba Ura to Kol'skiy Zaliv

1.14 Mys Pogan-Navolok (69°25'N., 33°26'E.), 2.8 miles ESE of a Mys Medvezhiy, is a prominent dark-colored gran-

ite headland which slopes gradually to the sea. It is the N termination of a peninsula, the S part of which is low, causing it to appear as an island when seen from E to W. Ostrovki Korelinskiye consists of two islets lying close W of the point; the E and larger islet is 43m high.

Between Mys Voriy, 1 mile E of Mys Medvezhiy, and Mys Pogan-Navolok, there is a bay, of which the W part forms Guba Vor'ya and the E part forms Guba Korelinskaya. Anchorage may be obtained in the entrance to Guba Vor'ya, in a depth of 13m, but N winds raise a heavy sea here. Guba Korelinskaya affords anchorage in a depth of 12m midway between the E islet of Ostrovki Korelinskiye and the S shore of the bay. Small vessels, with local knowledge, can anchor between the S extremity of the E islet of Ostrovki Korelinskiye and the E shore of the bay.

Mys Set'navolok (69°24'N., 33°30'E.), on the W side of the approach to Kol'skiy Zaliv, is prominent from NW and N. A light and a radiobeacon are situated on the point and a large aerial dish stands nearby.

Mys Pushka, 1.5 miles SSW of Mys Set-Navolok, is a bare red cliff. There are caves in the cliff into which the sea enters with great force, producing a noise resembling gunfire.

Mys Set'navolik Light and Radiobeacon

Mys Lodeynyy (69°22'N., 33°29'E.), from which a light is shown, lies 1 mile SSW of Mys Pushka. Guba Lodeynaya is entered between the points. The bay is steep-to and has depths too deep to afford good anchorage. A shoal, with a depth of 14.6m, lies 1.5 miles SE of Mys Lodeynyy.

Ostrov Toros, the W entrance point of Kol'skiy Zaliv, lies 3 miles S of Mys Lodeynyy. A light is shown from this island.

Kol'skiy Zaliv

1.15 Kol'skiy Zaliv (69°10'N., 33°30'E.) is entered 6 miles S of Mys Set'navolok between Ostrov Toros and Mys Letinskiy, 2 miles ESE. The inlet is divided into three reaches. The N reach, about 9 miles in length, extends from the entrance to Ostrovok Shurinov S to a line between Mys Las (69°09.5'N., 33°29.0'E) and Mys Chirkovyy, 1.5 miles ESE; the middle reach then extends generally SW for about 11 miles, then S for 1 mile to Mys Mishukov (69°02.7'N., 33°02.7'E); and the S reach then extends SSW about 12 miles to the head of the gulf. The reaches are indicated by ranges.

Murmansk Port, the most northerly of the ice-free ports in the Russian Federation, is situated on the E shore within the S reach, about 25 miles from the entrance to Kol'skiy Zaliv. See paragraph 1.24 for a detailed description.

Ice.—The N reach of Kol'skiy Zaliv is always ice free. Only during severe winters does shore ice form, usually during February and March, and even this is constantly breaking up from wave action. Some ice floes will be found, especially in the S portion of this reach, that have been carried N from the middle reach.

The middle reach can be covered with compact first-year ice during severe winters during February and March but in mild winters there will be only drift (broken) ice that has been carried out from the inlets and bays.

The S reach will be covered with first-year ice during severe winters during February and March and drift ice during milder winters. Drift ice can be observed in this reach as late as mid-May during severe winters but not later than mid-April in other years.

See paragraph 1.24 for a description of ice conditions at the port of Murmansk.

Winds—Weather.—Fog is most prevalent during the months of June through August. During the months from October through March, dense arctic sea smoke can exist for extended periods of time, especially during weather patterns that result in strong S and SE winds.

Tides—Currents.—The tides in Kol'skiy Zaliv rise about 3.7m at springs and 3m at neaps.

In the N part of Kol'skiy Zaliv as far as Ostrov Sal'nyy there is a constant outgoing current with a rate of up to 1 knot. South of Mys Velikiy, some flood current is felt, but it seldom exceeds 0.5 knot. The normal tidal currents become established in the S reach of the inlet where the ebb current attains a rate of up to 2.5 knots off Mys Lagernyy and up to 5 knots off Kola. The flood current attains a rate of up to 2 knots off Mys Lagernyy and up to 4.5 knots off Kola.

Depths—Limitations.—The least charted depth along the recommended route of the N reach of Kol'skiy Zaliv is 47m in the inbound shipping lane, and 97m in the outbound lane. The middle reach has a least charted depth of 31m in the recommended inbound lane, and 15m in the outbound lane. The S reach, which includes the limits of Murmansk Commercial Seaport, has a least depth of 14m in the recommended inbound lane, and 15.4m in the outbound lane. For further information, see paragraph 1.24 for the port of Murmansk.

The Retinskiy Deviation Test Area, established in the middle reach of Kol'skiy Zaliv in the vicinity of Mys Retinskiy (69°06'54"N., 33°23'48"E.), is used for compass adjustment. There are two sets of transits between Mys Retinskiy and Mys Filinskiy in depths of 140 to 160m.

Pilotage.—Pilotage is compulsory and is available 24 hours.

A request for pilotage and an ETA must be sent 48 hours in advance, with a confirmation sent 4 hours prior to arrival. Vessels leaving the port must send an ETD and a request for pilotage 6 hours before departure, with a confirmation 2 hours prior to sailing.

Pilots embark off the entrance to **Guba Tyuva** (69°11'57"N., 33°31'18"E.). Depths in the vicinity of the pilot boarding po-

sition are too deep for anchoring. However, if the sea is too rough, vessels should follow the pilot boat and embark the pilot S of Ostrov Sal'nyy (69°08'N., 33°28'E.).

For pilot contact information see the table titled **Kislaya Pilots—Contact Information**.

Kislaya Pilots—Contact Information	
Pilots	
Call sign	Kislaya Radio 1
VHF	VHF channels 14 and 16
Telephone	7-815-248-0480
Facsimile	7-815-248-0480
E-mail	lotsmur@mf-rmp.ru
Pilot Vessel	
Call sign	Lotsman
VHF	VHF channels 14 and 16

Regulations.—An ETA should be sent through the ship's agent 12 days, 4 days, and 12 hours prior to arrival. Petroleum, chemical, and gas carriers must send an ETA 14 days, 3 days, and 12 hours before arrival.

Waiting areas, the limits of which are shown on the chart, lie centered 3.5 miles NW and 5.5 miles NE of Mys Set-Navolok. When using these areas, care should be taken not to enter the area S of 69°25'N and W of 33°50'E.

Vessels entering Kol'skiy Zaliv give way to vessels leaving the inlet.

Overtaking of vessels is prohibited between Mys Mokhnatkin and the N limit of the Murmansk Commercial Seaport.

Navigation along the centerline of the Kol'skiy range line in the N reach is permitted only to vessels conducting speed measurements and carrying flag signals. Flag signals hoisted during speed measurements should be either Sierra-Mike, Romeo-Pennant One, or Uniform-Pennant One.

Water Area No. 1 and Water Area No. 2, both situated in the middle reach of Kol'skiy Zaliv about 5 miles N of Murmansk, are only used by tankers conducting oil-loading and off-loading operations. All other vessels are prohibited from entering these areas.

Vessel speed limits are in force in Kol'skiy Zaliv. In the N reach between Mys Letinskiy and the N end of Ostrov Sal'nyy, the speed limit is 14 knots. In the middle reach to Mys Pinagoriy, vessels must not exceed a speed of 10 knots. In the S reach, a limit of 6 knots is enforced.

Five Regulated Areas, where entry is prohibited for all vessels, are located within Kol'skiy Zaliv; these are numbered 19, 20, 21, 23, and 25. Three additional Regulated Areas, designated as Areas Prohibited For Navigation by Foreign Vessels, are located on the W side of the N reach of Kol'skiy Zaliv, as shown on the chart; they are numbered 16, 17, and 18. All these areas are shown on the chart but are listed below for reference:

1. **Area No. 16.—**West of Ostrov Kuvshin with a center point near position 69°18' 00"N, 33°24' 36"E.
2. **Area No. 17.—**West of the meridian of Saydagubskiy Lighted Beacon (69°16'40.2"N., 33°18'13.8"E.).
3. **Area No. 18.**—Kolskiy Zaliv—Guba Olenya and Guba Pala—West of a line connecting Ostrov Sedlovatyy (69°15'28.8"N., 33°28'48.6"E.) and Ostrov Bol'shoy Olrniy (69°13' 48"N., 33°29' 18"E.).
4. **Area No. 19.**—Kolskiy Zaliv—Yekaterininskaya Gavan—The area (69°12'18.0"N., 33°29'16.8"E.) bounded on the E by lines joining the following positions:
   a. 69°12'07.8"N, 33°29'47.4"E.
   b. 69°12'27.0"N, 33°29'36.0"E.
5. **Area No. 20.**—Kolskiy Zaliv—East of Mys Shurinov—Within an area bounded by the coast and lines joining the following positions:
   a. 69°10'12.0"N, 33°29'18.0"E. (coast)
   b. 69°10'06.0"N, 33°31'24.0"E.
   c. 69°09'24.0"N, 33°28'57.0"E.
   d. 69°09'24.0"N, 33°29'54.0"E. (coast)
6. **Area No. 21.**—Kolskiy Zaliv—Guba Vayenga—Within an area bounded by the coast and lines joining the following positions:
   a. 69°07'00.0"N, 33°27'27.0"E. (coast)
   b. 69°06'25.8"N, 33°25'00.0"E.
   c. 69°05'24.0"N, 33°22'06.0"E.
   d. 69°04'52.8"N, 33°21'24.6"E. (coast)
7. **Area No. 23.**—Kolskiy Zaliv—Guba Chalmpushka and Guba Roslyakova—Within an area bounded by the coast and lines joining the following positions:
   a. 69°03'42.0"N, 33°14'18.0"E. (coast)
   b. 69°03'30.0"N, 33°12'18.0"E. (coast)
8. **Area No. 25.**—Kolskiy Zaliv—Southwest of Mys Pinagoriy—Within an area bounded by the coast and lines joining the following positions:
   a. 69°02'30.0"N, 33°04'24.6"E. (coast)
   b. 69°02'30.0"N, 33°04'00.0"E.
   c. 69°03'04.2"N, 33°04'16.2"E.
   d. 69°03'13.8"N, 33°05'24.0"E.
   e. 69°03'06.0"N, 33°05'31.8"E. (coast)

All vessels navigating or at anchor within Kol'skiy Zaliv must keep watch on VHF channel 16.

Vessel Traffic Service.—A mandatory Vessel Traffic Service (VTS) system operates24 hours in Kol'skiy Zaliv and Murmansk. For further informatio9n, see paragraph 1.24.

Anchorage.—All anchorage berths are allocated by the Kol'skiy VTS.

Two designated anchorages for superships and tankers are located in the W end of the middle reach. Anchorage Area No. 1 is centered on position 69°03'48"N, 33°05'00"E. Anchorage Area No. 2 is centered on position 69°03'57"N, 33°06'07"E.

Six Regulated Areas Prohibited for Anchoring are located within Kol'skiy Zaliv, outside the limits of Murmansk Commercial Seaport. These are numbered 81, 82, 84, 85, 113, and 114 and are shown on the chart. For detailed boundaries see Pub. 180, Sailing Directions (Planning Guide) Arctic Ocean.

When anchoring in the S reach of Kol'skiy Zaliv, care must be taken to watch for submerged berths and ballasted down barrel buoys along the NE shore, as well as wrecks at the head of the inlet.

Directions.—Inshore traffic zones are established between the traffic lanes and the coast on the W and SE sides of the scheme.

Recommended tracks, shown on the chart, lead from N into traffic lanes, which lead to a Precautionary Area fronting the entrance to Kol'skiy Zaliv. The inbound track lies W of the outbound track. A roundabout is situated in this Precautionary Area and Kol'skiy Lighted Buoy is moored at its center, 4 miles SSE of Mys Set'navolok.

Recommended tracks lead from E and NE into traffic lanes which lead to a vessel traffic circle, as shown on the chart, located about 6.2 miles ENE of Mys Set-Navolok. The inbound tracks lie N of the outbound tracks. Traffic lanes lead from the roundabout to the Precautionary Area fronting the entrance.

After proceeding inbound through the TSS in the approaches to Kol'skiy Zaliv a course should be steered to use the Recommended Track No. 1, not exceeding the established speed, taking soundings and exercising caution.

Vessels sailing between the Murmansk Commercial Seaport and midway through the middle reach (between Mys Shestakova and Mys Shavor) should exercise special caution to avoid collisions due to the northbound and southbound recommended tracks being very close to each other.

Vessels sailing southbound in the S reach should follow the Kiyevarakskiy Range Line, while northbound vessels should sail to the E of this line.

Caution.—A formerly mined area lies in the approaches to Kol'skiy Zaliv NW of Ostrov Kil'din.

In Kol'skiy Zaliv, dense "frost smoke" sometimes occurs during S and SE winds and especially with a fall in temperature. If the inlet does not freeze when the temperature is low, due to spring tides or other causes, a dense fog occurs in the vicinity of Murmansk and a less dense fog occurs throughout the whole inlet.

Several submarine cables lie in the approaches to the inlet and are indicated on the chart.

Several areas, in which navigation is prohibited or in which anchoring and fishing are prohibited, lie within the inlet and the approaches and may best be seen on the chart.

Practice Area BII-10, also known as Area No. 125, lies in the E approaches to Kol'skiy Zaliv and is bounded by lines joining the following positions:

a. 69°20'42.0"N, 33°46'00.0"E.
b. 69°21'39.0"N, 33°46'00.0"E.
c. 69°24'00.0"N, 33°53'30.0"E.
d. 69°20'42.0"N, 33°53'30.0"E.

It has been reported (2008) that extensive changes to jetties, floating breakwaters, recommended anchorages, wrecks, and navigational aids have occurred in Kol'skiy Zaliv. Vessels are advised to navigate with caution and contact the port authorities for further information.

When turning from the middle reach of the gulf into the S reach, do not rely on magnetic compass readings due to the existence of local magnetic anomalies.

Numerous stranded wrecks are scattered throughout the approaches and navigable waters of the fjord and can best be seen on the chart. Many of these wrecks are dangerous and poorly marked. Despite removal efforts, they still present a common hazard in the area and mariners are advised to navigate with caution and consult local authorities for the latest information.

A dangerous wreck, with a depth of about 30m and marked by a buoy, has been reported (2010) to lie between Ostrov Zelyonyy and the mainland at position 69°16'46"N, 33°23'31"E.

Hydrofoil craft may be encountered when navigating along the recommended routes.

1.16 Ostrov Toros (69°18'N., 33°28'E.), the W entrance point of the reach, is 77m high and dark in color. A light is shown from the E side of the island and two islets lie off the NE side. A signal station is situated on the island.

Between Ostrov Toros and Mys Chevruy, 3 miles S, the W side of Kol'skiy Zaliv is rugged with a number of islets, rocks, and shoals lying offshore. Banka Malaya Voronukha, 0.8 mile S of the S extremity of Ostrov Toros, is a flat reef which dries and is steep-to on its N side. Lighted buoys are moored on the N, E, and W sides of this reef. A number of islets, rocks, and shoals lie S and W of the above lighted buoys and can best be seen on the chart.

A detached shoal, with a least depth of 10.8m, lies midway between Ostrov Toros and Banka Malaya Voronukha, and another detached shoal, with a least depth of 12.2m, lies 0.4 mile ESE of the reef.

Ostrov Sedlovatyy (69°15'N., 33°28'E.) lies off Mys Chevruy, 3 miles S of the E extremity of Ostrov Toros. The island is 21m high and saddle-shaped, having two gray hillocks and a steep and dark-colored coast. A light is shown on the N hillock of the island. There is a landing stage for boats on the W side of the island.

Guba Sayda (69°16'N., 33°23'E.) is the largest of the branches of Kol'skiy Zaliv. Three channels lead to the entrance which is 300m wide and located 2 miles SW of the S end of Ostrov Toros. Large vessels should use the N channel which leads between the S end of Ostrov Toros and Banka Malaya Voronukha. The shores of the entrance are high and steep. Depths are 37 to 67m in the entrance to Guba Sayda, then increasing sharply to 111m close inside the entrance, then gradually shallowing until the head of the inlet where Reka Sayda flows into it.

The tidal currents in the entrance attain a rate of 1 to 1.5 knots. Mariners should use care when entering Guba Sayda due to the lack of up-to-date information.

Only small vessels, with local knowledge, can anchor in Guba Sayda because of the limited space where depths are suitable for anchoring. Guba Sayda freezes from the end of October to the end of April.

1.17 Guba Olen'ya (69°13'N., 33°25'E.), encompassing an industrial area, is entered 1.2 miles SSE of Mys Chevruy. The shore between consists of bare, steep granite rocks and a number of small coves. On the S side of the approach to Guba Olen'ya is a group of islands and islets, the largest of which is Ostrov Yekaterininskiy. Yekaterininskiy Vostochnyy Light is shown from Ostrov Yekaterininskiy.

Guba Olen'ya extends 3.5 miles W from the NW end of Ostrov Yekaterininskiy, but is too deep near the entrance and

too narrow within to afford good anchorage. Guba Olen'ya lies within Regulated Area No. 18, into which entry is prohibited.

Ostrova Bol'shoy Oleniy (69°14'N., 33°29'E.), lying close off the NE side of Ostrov Yekaterininskiy, is composed of gray granite hills, with those in the N part being steep. A light is shown from the N extremity of the island.

Caution.—Navigation is prohibited W of a line between Ostrov Sedlovatyy and the light on Ostrova Bol'shoy Oleniy.

Ostrova Bol'shoy Oleniy Light

1.18 Mys Gavanskiy (69°12'N., 33°30'E.), a bare granite projection, is located 1.8 miles S of Ostrova Bol'shoy Oleniy Light.

Between Mys Gavanskiy and Mys Las, 2.5 miles SW, the shore is fairly high and steep, and indented by four coves. At the head of each of these coves, the land slopes gently and is covered with bushes. Drying reefs and several islets front this stretch of the shore.

Ostrovok Brandvakhta, 0.8 mile S of Mys Gavanskiy, lies near the edge of a shallow rocky bank which extends 0.2 mile offshore. This islet resembles a dark-colored hillock with steep slopes and has a black streak running down its side. In clear weather, it can be identified from the entrance to Kol'skiy Zaliv. A light is shown from the islet; a lighted buoy is moored close S of the light. A floating jetty has been reported (2008) about 0.8 mile SE of Ostrovok Brandvakhta close S of an existing pier. A stranded wreck lies between two piers about 1 mile SSE of the floating jetty.

Guba Kislaya, a cove, is located 0.2 mile W of Ostrovok Brandvakhta. Pilots board in the fairway adjacent to Guba Kislaya.

Ostrovki Severnyye Goryachinskiye, two bare granite islets lying close together, are located 0.5 mile SSW of Ostrovok Brandvakhta. They are steep-to on the E side, but the passage between them and the mainland is foul.

Ostrovok Shurinov (69°10'N., 33°30'E.), 0.2 mile long and marked by a light, lies 0.2 mile NE of Mys Las. A reef, which partly dries, extends 0.4 mile NE from the islet. A lighted buoy is moored 0.7 mile NE of the islet and marks the E side of a rocky shoal with a depth of 9.2m. A lighted buoy also marks the SE end of the spit, upon which Ostrovok Shurinov lies, and the SE end of the drying reef surrounding the island. The passage between the islet and Mys Las can be used by vessels with drafts not exceeding 4.9m.

1.19 Mys Letinskiy (69°18'N., 33°35'E.), the E entrance point of the N reach, lies 2 miles ESE of Ostrov Toros. It is the NW extremity of a peninsula which is formed by granite hills and attains an elevation of 245m, 1.2 miles SSE of the point. A light is shown from a tower standing 0.2 mile ESE of the point. A bank, with a least depth of 11.4m and over which the sea breaks in bad weather, lies 0.2 mile NNW of the point.

Mys Letinksiy Light

Guba Bol'shaya Volokovaya (69°16'N., 33°36'E.) is entered 2.8 miles S of Mys Letinskiy between a point, which shows a light, and another point, 0.3 mile S. The inlet consists of high and steep granite shores with cliffs on the NW side. A hilly promontory projects from the head of the inlet, dividing it into two coves, both of which dry. Between Mys Letinskiy and Guba Bol'shaya Volokovaya, the coast is steep and precipitous in places.

Guba Tyuva (69°12'N., 33°35'E.) is entered 3 miles S of Guba Bol'shaya Volokovaya. The coast between is high and steep with a reddish color. There are no indentations other than small coves. Two islets lie close off the shore, 0.8 mile N of the entrance to the inlet. Guba Tyuva extends SE for 2 miles and its shores are steep and covered with trees, except near the entrance. The inner part dries, except for a narrow and shallow channel leading to the head. A small jetty is situated on the NE side of the inlet. Local knowledge is required.

Severomorsk Naval Base

Guba Srednyaya (69°09'N., 33°34'E.) is entered between Mys Sampo-Navolok, 2.5 miles S of the entrance to Guba Tyuva, and the E extremity of Mys Chirkovyy, 0.2 mile WSW. The entrance is obstructed by a shallow bar over which the sea breaks during strong N winds.

1.20 Between Mys Chirkovyy and Mys Karbas, 3.8 miles SW, the shore is indented by a bight. Mys Sal'nyy, the S entrance point of this bight, is located 1 mile NNE of Mys Karbas and is marked by a light. A light is also shown from Mys Karbas. Mys Chirkovyy Lighted Range consists of three lights, aligned 177°48', and is shown from the head of the N reach.

Ostrov Sal'nyy (69°08'N., 33°28'E.) lies 0.5 mile N of Mys Sal'nyy and in the middle of the channel. It is formed of gray granite and is moss-covered. A light is shown from the summit of this island. Banka Sal'nyy lies 0.5 mile SW of the light. This bank has a least depth of 9.5m and is marked by a lighted buoy.

Mys Sal'nyy Light

Between Mys Karbas and Mys Shavor, about 2.5 miles SW, the coast recedes to form two bights which are separated by Mys Alysh (69º04.6'N, 33º25.1'E), a rocky point. Guba Vayenga lies E and Guba Varlamova lies W of the point. The town and the Russian Federation Naval Base of Severomorsk stand close S of Mys Alysh. Both of these bays lie within Regulated Area No. 21 into which entry is prohibited. Two mooring buoys are located 4.5 miles SW of Severomorsk near the point at Guba Chalmpushka. Two wrecks, in depths of 2m and 3.5m, are located close S of the mooring buoys. Projecting from Mys Alysh are numerous finger jetties.

Between Mys Nikitina, 1 mile SW of Mys Shavor, and Mys Mokhnatkin (69°03.7'N., 33°09.5'E), 3 miles WSW, the shore is indented by three partially-drying bays. Two of the bays are closed to navigation and the easternmost is marked by a lighted buoy. Small vessels can obtain anchorage off the entrances to these bays. A light is shown from Mys Mokhnatkin. Mys Pinagoriy lies 1.8 miles SW of Mys Mokhnatkin.

1.21 Guba Pit'kova (69°09'N., 33°25'E.), a cove indenting the N shore of the middle reach, lies 1.5 miles SW of Mys Las. The village of Platonovka stands at the head of this cove. Rocks, which dry, lie on the bank extending from the SW entrance point. Several mooring buoys are located off the cove.

Mys Retinskiy (69°07'N., 33°24'E.), from which a light is shown, lies 1.5 miles SSW of the S entrance point of Guba Pit'kova. Although the extremity and sides of Mys Retinskiy are not high, the point is conspicuous and steep-to. Between Mys Retinskiy and Mys Velikiy, 3 miles SW, the shore is indented by several coves. Drying shoals, on which rocks lie, border this entire stretch of shore for a width of 0.1 mile.

Mys Retinskiy Light

Lighted beacons stand close W of Mys Retinskiy and in the vicinity of Mys Filinskiy, 1.5 miles SW.

Caution.—It has been reported (2010) that a new wharf is under construction in the vicinity of Guba Belokamennaya between position 69°04'57.6"N, 33°11'42.9"E and position 69°04'52.3"N, 33°12'30.0"E.

1.22 Mys Belokamennyy (69°05'N., 33°11'E.) is prominent to inbound vessels and is marked by a light. Mys Kondratkina lies 0.8 mile W of Mys Belokamennyy and a shoal, marked by a lighted buoy, extends 0.2 mile S of the point. From Mys Kondratkina, the shore trends WSW for 2 miles and then turns sharply S to Mys Mishchukov.

Regulations.—Two areas located close NE of the elbow of Kol'skiy Zaliv are intended for tanker operations and mooring only. Entry into these areas is prohibited for all other vessels except tankers. The first area, situated between Mys Belokamennyy and Mys Kondratkina, is bounded by lines joining the following positions:

a. 69°04'05"N, 33°09'06"E.
b. 69°04'26"N, 33°09'30"E.
c. 69°04'27"N, 33°10'06"E.
d. 69°04'16"N, 33°11'06"E.

The second area, situated close S of Mys Mokhnatkin, is bounded by lines joining the following positions:

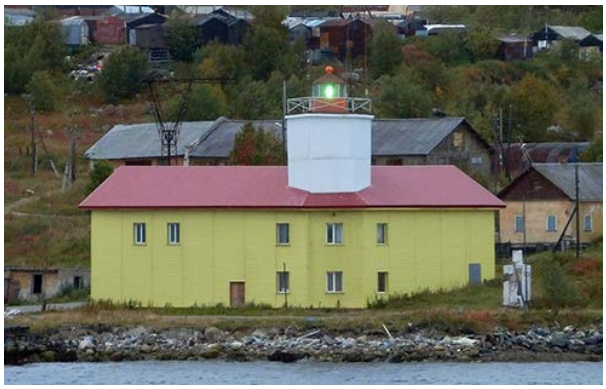
a. 69°03’28”N, 33°08’52”E.
b. 69°03’36”N, 33°08’31”E.
c. 69°03’42”N, 33°08’52”E.
d. 69°03’36”N, 33°09’11”E.

Caution.—A seaplane operating area lies between Mys Velikiy and Mys Belokamennyy. A wreck has been reported (2009) to lie 1 mile W of Mys Belokamenny, close N of a coastal cove.

A cargo transhipment area (69º04.8'N, 033º14.5'E) is located 0.5 mile ESE of MYS Tukhmachkin.

Mariners should note the presence of a submarine cable which enters the bay W of FSO Belokamenka. Floating Storage and Offloading Vessel Belokamenka (red hull, green superstructure), which handles storage and shipment of crude oil, is situated 0.4 mile SW of Mys Belokamennyy, in position 69º04.2'N, 033º09.8'E.

1.23 The S reach extends 10 miles S from its entrance points, Mys Mishchukov on the W side and Mys Pinagoriy on the E side, to Kola near the head of the reach. Both shores of the reach are fringed by drying shoals which extend nearly 0.5 mile seaward abreast the bays and nearly 0.6 mile seaward from the E shore just NE of Kola. The town of Murmansk stands 3.5 miles within this reach on the E side.



Mys Mishukov Light

Mys Mishukov (69°03'N., 33°02'E.), marked by a light, is the W entrance point of the reach. A prominent bright-orange radio tower sits atop a hill above the village. The point is low, but conspicuous more to northbound traffic than to those proceeding S. The point should not be passed closer than 300m as it is bordered by a narrow shoal which is marked by a lighted buoy. Gora Mishchukov, 351m high and prominent, stands 1.8 miles NW of the point.

Lighted buoys moored about 1 mile and 1.2 miles S of the point mark the edge of the shore bank on the W side of the channel.

Mys Pinagoriy, the E entrance point of the S reach, is a high, precipitous cape descending W to a small, low point which is comparatively steep-to. The width of the reach at this point is about 0.8 mile, with depths of 18 to 40m.

Banka Anna-Korga, on the W side of the reach 2.5 miles S of Mys Mishchukov, is a rocky shoal which dries and is covered by weed. A lighted beacon stands on the bank. Two lighted buoys mark the E extent of the reef, with one buoy located about 280m N of the bank and the other buoy about 130m E of the bank.

Courtesy of Michael Christopher

Murmansk—2nd Cargo District

Mys Abram (68°59'N., 33°02'E.), at the foot of a hill, is low and difficult to identify. A quay and a pier, which can accommodate vessels of up to 6m draft, are situated close S of the point. A lighted buoy is moored close SSE of the pier head and marks a projection of the coastal bank.

Mys Zelenyy (69°00'N., 33°03'E.) is located 3.5 miles S of Mys Pinagoriy on the E side of the reach. This point is easily identified and lies at the foot of a steep slope on the side of a ridge of hills which rises to a height 135m. A prominent monument, 37m high, stands at an elevation of 169m, about 0.5 mile E of the point. Portovyy Light No. 7 is shown from the point.

Murmansk (68°59'N., 33°03'E.)

World Port Index No. 62950

1.24 The port of Murmansk, situated about 25 miles S of the entrance to Kol’skiy Zaliv in the S reach, is the largest commercial harbor and fishing port in the Barents Sea. The commercial harbor is named Murmansk Commercial Seaport and is bounded by a line between Mys Mishukov (69°02'36"N., 33°02'42"E.) and Mys Pinagority (69°02'55"N., 33°04'17"E.) and parallel of 68°58'12"N. Murmansk Fishing Port is situated S of the commercial port with the S limit along parallel of Mys Gorelyy (68°55'47"N). It is designated as a port open to visits by foreign merchant vessels and is open all year, with icebreaker assistance available if required.

The commercial port handles general dry bulk, crude oil, and petroleum cargo; facilities are provided for container, Ro-Ro, and passenger traffic. Principal cargoes handled are coal, apatite, and general goods. The port also houses a naval shipyard.

The town of Murmansk is the administrative center of Mramanskaya Oblast.

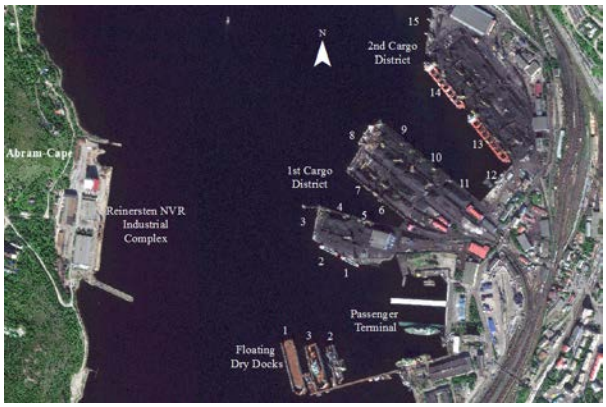
Winds—Weather.—Moderate gales can be expected from two to four days each month throughout the year. The period from November to February is considered the most

violent season of the year. When visibility is reduced to 0.5 mile or less the movement of all vessels is controlled by the port radar station. Towing of large vessels and movement of petroleum tankers is prohibited. Berthing at Berths 4 to 7 of vessels more than 100m in length is prohibited when visibility is less than 0.2 mile.

The prevailing winds are from the W and SW, except during the period from May to August when the winds are N and NE. Fog during the period of January to April makes navigation difficult and sometimes impossible for a few days at a time. Berthing, bunkering, and petroleum cargo operations are prohibited when the wind strength exceeds force 7.

Ice.—Near the port, ice generally forms at the beginning of January and attains its maximum thickness by the end of February, disappearing by the middle of April. The ice does not generally interfere with shipping, but when it does icebreakers are employed. Ice appears for a few days in May when the ice breakup occurs in the local rivers.

Tides—Currents.—The tides at the port rise about 2.5m at springs and 1.4m at neaps.



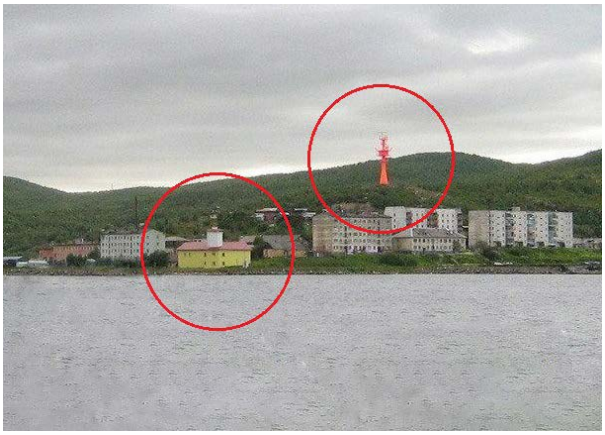
Courtesy of Digital Globe (June 2017)

PJSC Murmansk Commercial Seaport (Berths 1-15)

There is a permanent N-going current the rate which varies during the course of the year. A counter-current exists in the vicinity of Banka Anna-Korga (69°00.1'N, 33°01.6'E). It should be noted that the currents in the S reach of Kol'skiy Zaliv and the waters of the port can be significantly different than they were in the middle and N reaches of the gulf.

Depths—Limitations.—Murmansk is organized into a Commercial Seaport, a Fishing Port (situated close S of the commercial port), and some miscellaneous facilities located in the extreme N part of the Murmansk port area limit, close S of Mys Pinagoriy (69°02'56"N., 33°04'19"E.) and around Mys Mishukov.

The facilities close S of Mys Pinagoriy consist of several wharves and jetties for loading coal; there are extensive shipyards for construction and repair in this area as well. Four piers and one floating dock are located across the reach clustered around Mys Mishukov. Russian Regulated Area No. 86 is situated in this area from the coast along 69°02'43"N extending S to 69°02'30"N and E for 0.5 mile. See Publication 180, Sailing Directions (Planning Guide) Arctic Ocean for exact limits.



Mys Mishukov Light and Radio Tower

The Murmansk Commercial Seaport provides about 3,000m of total berthing space over 19 usable berths. Berths No. 1 to 18 are organized into three cargo districts, with Berth No. 19 designated as the Agrosphere Terminal. There are also three additional terminals equipped for ship-to-ship crude oil transfer operations, capable of handling vessels up to 150,000 dwt, located close SSW of Berth No. 1 and Berth No. 2. There are additional tanker facilities for small vessels located about 5 miles S of the commercial port. These are two piers capable of handling vessels up to 160m in length and a draft of 7.5m.

Murmansk—Berth Information						
Berth	Length	Depth	Maximum Vessel			Remarks
			LOA	Draft	Beam	
Murmansk Commercial Seaport—1st Cargo District						
No. 02	220m	8.5m	229m	—	38.0m	Alumina and coal.
No. 04	310m	10.8m	235m	—	38.0m	Alumina and coal.
No. 05		7.2m	235m	—	38.0m	
No. 06	287m	7.0m	229m	—	38.0m	Alumina, breakbulk, limestone, breakbulk, and coal.
No. 07		10.1m	229m	—	38.0m	
No. 08	231m	7.0m	190m	—	32.0m	Coal and breakbulk.

Murmansk—Berth Information						
Berth	Length	Depth	Maximum Vessel			Remarks
			LOA	Draft	Beam	
No. 09	213m	10.3m	295m	—	46.0m	Alumina, coal, and breakbulk.
No. 10	240m	10.1m	295m	—	45.0m	Alumina, coal, and breakbulk.
No. 11	32m	4.7m	—	—	—	Closed (2025).
Murmansk Commercial Seaport—2nd Cargo District						
No. 13	260m	11.3m	292m	—	45.0m	Alumina, breakbulk, and coal. Continuous berthing length of 525m.
No. 14	265m	14.9m	300m	—	50.0m	
No. 15	180m	10.0m	190m	—	32.0m	Coal and breakbulk.
Murmansk Commercial Seaport—Murmansk Bulk Terminal						
No. 17	240m	12.5m	290m	10.2m	45.0m	Iron ore, breakbulk, and apatite concentrates.
No. 18	187m	10.9m	292m	10.2m	45.0m	Fertilizer and breakbulk.
Murmansk Commercial Seaport—Agrosphere Terminal						
No. 19	198m	11.0m	199m	10.2m	32.2m	Fertilizer and breakbulk.
General Cargo Terminal						
Cargo Quay	320m	—	—	—	—	Project/heavy cargo, steel, and breakbulk.
Murmansk Passenger Terminal						
Passenger pier	206m	6.5m	79m	6.0m	20.0m	Project/heavy cargo, fishing vessels, and breakbulk.
Pervaya Stividornaya Kompaniya (PSK)						
37A PSK Berth	150m	8.1m	177m	7.5m	36.0m	Breakbulk, cement, and scrap metal.
JSC Murmansky Morkskoy Rybny Port Transhipment Terminal						
East Berth	155m	—	169m	—	27.5m	Containers, transhipment, breakbulk, bunkers, reefer, and steel products.
North Berth	300m	—	260m	—	34.6m	Containers, steel products, breakbulk, bunkers, and reefer.
Lavna Coal Transhipment Terminal						
North Jetty	—	—	—	—	—	Under construction (2025).
South Jetty	—	—	—	—	—	Under construction (2025).
Ugolnaya Baza						
NMR Berth	390m	—	115m	—	22.0m	Containers, food products, reefer cargo, breakbulk, and scrap metal.
Multipurpose Quay						
Fishing berth	945m	—	139m	—	27.1m	Fish.
Tanker berth	230m	—	96m	—	23.0m	Clean products.
Terminal Murmanskoe Morskoe Parokhodstvo JSC						
Anchorage Station RPK-1	292m	—	—	—	45.0m	Clean products and breakbulk.
Tanker Terminals						
FSO Kola	—	—	274m	—	50.0m	Crude.
FSO Umba						
FSO Umba	—	—	277m	21.1m	50.0m	Crude.
Murmansk Sea Terminal						
Anchorage Station PRK-2	—	—	169m	—	26.5m	Closed (2025).

Murmansk—Berth Information						
Berth	Length	Depth	Maximum Vessel			Remarks
			LOA	Draft	Beam	
Murmansk Tanker						
No. 37	155m	—	164m	—	22.2m	Closed (2025).
Oil Terminal Commodity Service						
Mohnatkin Patka	206m	14.0m	240m	12.8m	42.0m	Chemicals, clean products, and dirty products.
Perviy Murmanskiy Terminal						
1	86m	—	122m	—	18.5m	Clean products and dirty products.
2	86m	—	184m	—	32.3m	Clean products and dirty products.
3	88m	—	77m	—	14.0m	Clean products and dirty products.
4	85m	—	36m	—	7.4m	Clean products and dirty products.
5	56m	—	—	—	—	Closed (2025).
6	58m	—	—	—	—	Closed (2025).
Tangra Oil Terminal						
TO Berth	125m	—	274m	—	48.0m	Clean products, crude, and maznut.

Berthing information for the commercial port are given in the table titled **Murmansk—Berth Information**.

Courtesy of Digital Globe (June 2017)

Port of Murmansk (Berth Nos. 14 through 19)

There are three floating dry docks within the port. The largest is 201m long and 36m wide. It can handle vessels up to 30,000 tons, 200m in length, and 28m beam. There is also a floating jetty, about 127m in length and 14m wide, located in the vicinity of position 68°58.5'N, 33°03.7'E.

Aspect.—The approach to Murmansk begins from the ENE, continuing WSW through **Kol'skiy Zaliv**. Mishukova, a small settlement, lies on Mys Mishukov along the W shore of **Kol'skiy Zaliv,** where the fjord turns S. Mishukova is marked by a light, 20m high, which sits at the very tip of the point. A conspicuous bright-orange radio tower sits atop a small hill, above the village. Upon turning S near Mys Mishukov, the N neighborhoods of Murmansk come into view and extensive port facilities line both banks of the **Kol'skiy Zaliv**. The Alyosha Monument, a prominent Soviet-era monument of a soldier, sits above central Murmansk atop a hill on the E shore about 3 miles SE of Mishukova.

The principal port facilities of Murmansk, including the coal terminal, sit about 1 mile S of Alyosha Monument. A floating drydock facility marks the S boundary of the coal terminal. These drydocks extend near the center of the bay and may be more visible from the approach N of Alyosha than the coal terminal, which is obscured by the topography.

South of the floating drydocks, beyond the E curve of Kol'skiy Zaliv, sits a tank farm and tanker terminal. Further S, beyond the tank farm, is the Kola Bay Bridge. The Kola Bay Bridge is the longest automobile bridge N of the Arctic Circle, but most large commercial vessels cannot pass under it due to its limited vertical clearance.

Alyosha Monument

Pilotage.—The use of pilots is mandatory for approach and departure between Gubya Tyuva and Murmansk and for all movement within the port. For detailed information concerning pilotage and associated regulations, see Kol'skiy Zaliv (paragraph 1.15).

Vessels should request pilotage along with their ETA 48 hours in advance, with a confirmation sent no later than 4 hours in advance.

The pilot boards off Guba Tyuva in position 69°11'57"N, 33°31'18"E. In bad weather, vessels follow the pilot vessel to S of Ostrov Salnyy, where the pilot will board.

Regulations.—A mandatory Vessel Traffic Service (VTS) has been established in the approaches to the port. For further details, see Kol'skiy Zaliv (paragraph 1.15).

In addition to the 48-hour and 4-hour advance notice for requesting a pilot, vessels should forward their ETA 48 hours, 24 hours, and 4 hours prior to arrival. The initial 48-hour message should include the following information:

1. Vessel name.
2. Flag of vessel.
3. Last port of call.
4. LOA.
5. Vessel draft, fore and aft.
6. Number of passengers on board.
7. Quantity and location of any cargo on board.
8. Information about extra weight and extra length items on board.
9. Name of consignee(s).

All tankers must also advise, in addition to the information listed above, the following additional items:

1. Quantity of ballast and time required for deballasting.
2. Previous type of cargo carried.
3. Number of tanks that are not gas-free.

Nuclear-powered vessels must advise the port authority, when proceeding to the port, that they are in compliance with the requirements of the code of nuclear powered vessel safety and that the technical state of the vessel, manning, and qualification of the crew meet the requirements of the International Conventions and other normative acts on the safety of navigation. Large and nuclear powered vessels exhibit International Code flags RU by day; and three vertical all-round red lights by night. Vessels carrying dangerous cargo exhibit flag B by day; and an all-round red light be night.

Vessels requiring icebreaker assistance should send a request through their agent 24 hours in advance; the exact time should be confirmed 2 hours in advance.

Tugs are available and their use is compulsory for berthing and unberthing. Either ship's or tug's towing lines may be used. Vessels requiring tugs should send a request through their agent 2 hours in advance.

All vessel movements in the port are controlled by Movements Control. Permission should be obtained in advance, via VHF, as follows:

1. Any vessel movements in the port require an advance notice of 2 hours.
2. Any vessel movements in the roadstead or the port when the wind exceeds force 6.

Ships proceeding to Murmansk, and those at anchor within port limits, must have the overboard discharge valves for the bilge pumping system closed and sealed. This must be carried out before entry into territorial waters and recorded. The discharge into the water area of the port of oil, oily mixtures, and other substances injurious to human and marine health is prohibited.

Navigational and meteorological information is broadcast daily on VHF channel 14 at 1100.

Departing vessels should send their ETD 6 hours in advance and confirmed 2 hours in advance.

Vessel Traffic Service.—A mandatory Vessel Traffic Service (VTS) has been established in the approaches to the port. The Vessel Traffic Service operates 24 hours. It establishes the order of navigation, the sequence of entering and leaving, movements in the port area, the locations of vessels in anchorages and at berths, coordinates all actions in emergency situations, and provides all necessary navigation and hydrometeorological information.

Before entering the VTS area, vessels should provide the following information to the VTS Center:

1. Vessel name, flag, type, and IMO Number.
2. Agent's name and address.
3. Last port and next port.
4. Vessel dimensions and freshwater draft (fore and aft).
5. Cargo type, amount, and hazard class.
6. Number of crew and passengers.
7. Details of navigation equipment not working or other restrictions.

All vessels will maintain a continuous listening watch on VHF channels 12 and 16 when navigating in the VTS area.

When visibility is reduced to 0.5 mile or less, navigation of all vessels will be carried out only under radar control. Radar pilotage is available in the S reach, which includes the area from Mys Mishukov to Murmansk.

Storm warnings are broadcast on VHF channel 16 for vessels underway or at anchor; vessels moored in port will be advised through their agents.

All inbound and outbound vessels should report to the VTS Center on VHF channel 12 or 16 when passing the Re-

porting Points listed in the table titled **Kol'skiy Zaliv—Reporting Points**.

Kol'skiy Zaliv—Reporting Points		
No.	**Name**	**Position**
Inbound Reporting Points		
A1	Mys Tsyp Navolokskiy	69°52'00.0"N, 33°32'45.0"E
A3	Mys Set'navolok	69°27'00.0"N, 33°32'45.0"E
A5	Ostrov Toros	69°18'38.4"N, 33°30'43.8"E
A7	North headland of Guba Tyuva	69°12'00.0"N, 33°31'27.0"E
A9	Mys Mishukov	69°06'22.8"N, 33°23'31.2"E
A11	Mys Mishukov	69°03'20.4"N, 33°03'30.0"E
B1	Ostrov Kil'din (E part)	69°32'00.0"N, 34°39'00.0"E
B3	Ostrov Kil'din (W part)	69°26'00.0"N, 33°49'30.0"E
C7	Ostrov Kil'din (E part)	69°20'00.0"N, 34°45'54.0"E
Outbound Reporting Points		
A12	Mys Mishukov	69°03'04.8"N, 33°03'58.2"E
A10	Mys Alysh	69°04'52.8"N, 33°19'19.2"E
A8	North headland of Guba Tyuva	69°11'30.0"N, 33°32'40.8"E
A6	Mys Set'navolok	69°17'54.0"N, 33°32'00.0"E
A4	Mys Set'navolok	69°29'00.0"N, 33°35'36.0"E
A2	Mys Tsyp Navolokskiy	69°45'00.0"N, 33°35'36.0"E
B4	Ostrov Kil'din (W part)	69°23'00.0"N, 33°46'00.0"E
B2	Ostrov Kil'din (E part)	69°30'36.0"N, 34°39'00.0"E
C8	Mys Teriberskiy	69°19'00.0"N, 34°45'12.0"E

Contact Information.—See the table titled **Murmansk—Contact Information**.

Murmansk—Contact Information	
Pilots	
Telephone	7-815-248-0480
Facsimile	7-815-248-0480
E-mail	lotsmur@mf-rmp.ru
Kislaya Bank Pilot Service	
Call sign	Murmansk Pilot
VHF	VHF channels 14 and 16
Seaport Pilot Service	
Call sign	Murmansk Radio 15
VHF	VHF channels 2 and 14
Pilot Vessel	
Call sign	Lotsman
VHF	VHF channels 14 and 16
Trade Terminal Port Control	
Call sign	Murmansk Radio 5
VHF	VHF channel 14
Fish Terminal Port Control	
Call sign	Murmansk Radio 36
VHF	VHF channel 37
Port Authority	
Telephone	7-815-255-0800
Facsimile	7-815-255-0850
E-mail	mail@mrm.rosmoport.ru
Web site	https://www.rosmoport.ru
Murmansk Commercial Port VTS	
Call sign	Murmansk Traffic
VHF	VHF channels 12, 16, 18, and 67
Telephone	7-815-247-9026 (0900-1700)
Facsimile	7-815-247-9026
E-mail	vts@mf-rmp.ru
Murmansk Fishing Port VTS	
Call sign	Murmansk 47
VHF	VHF channel 16
Note.—All stations operate 24 hours.	

Anchorage.—All anchorage berths are allocated by the Kol'skiy VTS.

Good holding ground may be obtained anywhere in the N part of the S reach except in the vicinity of the submarine cables and prohibited areas. However, vessels should avoid parts of the middle of the reach where depths are considerable.

Russian vessels can anchor, in depths of 15 to 34m, to the W of Kiyevarakskiy Range Line, between the S border of Regulated Area No. 86 and the parallel of 69°00.6'N. Other vessels may anchor W of the same range line between the parallel of 69°00.6'N and the parallel of 68°58.5'N. Anchoring on or to the E of this range line is prohibited.

When anchoring near the coast in the N part of the harbor allowance needs to be made for the steep slope of the sea bed that causes the depth of the water to diminish rapidly inland of the 10m contour.

It is not recommended to anchor in the vicinity of Utyos Abram-Pakhta (68°58.0'N., 33°01.4'E.) because of strong currents and poor holding ground.

Three Regulated Areas Prohibited for Anchoring are located within the limits of the Murmansk Commercial Seaport and the Fishing Port. Area No. 25 is located N and W of Mys Pinagoriy, Area No. 86 is located SE of Mys Mishukov, and Area No. 87 is located SE of Mys Abram. For detailed boundaries, see Pub. 180, Sailing Directions (Planning Guide) Arctic Ocean.

Caution.—Numerous mooring buoys and obstructions are charted and situated within the harbor.

Occasionally, cargo work is stopped due to exceptionally low temperatures during the winter.

Vessels should exercise caution when sailing along the Kiyevarakskiy Range Line in the S reach and watch for vessels that may have anchored W of this line and swung close to the line during periods of moderate or strong W winds.

Numerous stranded wrecks are scattered throughout the approaches and harbor basin and can best be seen on the chart. Many of these wrecks are dangerous, poorly marked, and sometimes located among the berthing and anchorages. Despite removal efforts, they still present a common hazard in the area and mariners are advised to navigate with caution and consult local authorities for the latest information.

Shoal water, with depths between 4.7m and 15.4m, lies about 0.6 mile W and SW of Mys Bazisnyy, which lies about 3 miles N of Murmansk. Shoal water, with depths between 12.2 and 14.5m, also lies about 80m from the E coast close S of Mys Bazisnyy.

1.25 The head of Kol'skiy Zaliv above Murmansk gradually narrows from a width of about 0.5 mile at **Mys Lagernyy** (68°56'N., 33°01'E.) to 0.1 mile at Kola, 4.5 miles S. It is reported (2007) that a wharf, about 150m in length, was under construction at Mys Lagernyy, about 1.5 mile S of Murmansk. A pontoon has been positioned close N of the wharf.

The entire head of the inlet is encumbered by drying shoals through which a tortuous channel leads with a maximum depth in the fairway of 2.1m. Range beacons guide small craft through the fairway which should not be attempted without local knowledge. An obstruction, with a depth of 8.9m, lies 1.75 miles NNE of Mys Lagernyy.

Kola (68°52'N., 33°01'E.), an ancient village, stands near the head of Kol'skiy Zaliv, about 5 miles S of Murmansk. The tidal currents off Kola are very strong with the outgoing current attaining a rate of 5.5 knots and the incoming current a rate of 4.5 knots. Small vessels can obtain anchorage in the mouth of a river, W of Kola. The village has a white church, with a green roof, which can be seen from the N end of the S reach.

Kol'skiy Zaliv to Ostrov Kil'din

1.26 Between Mys Letinskiy and Mys Svyatoy Nos, 152 miles ESE, the E part of Murmanskiy Bereg consists of gray, granite cliffs, some of which are tinted red and black in places. The coast is indented by small coves and the mouths of many streams. Several islands and islets lie close offshore. The coast is mostly steep-to except off the entrances to many of the coves and inlets.

Guba Malaya Volokovaya (69°17'N., 33°40'E.), entered 2 miles E of Mys Letinskiy, has high, steep shores on both sides. A defile, which extends SSW from its head, can be seen from NE for a distance of 10 miles. Volokovyye Korgi, comprising an islet and some drying rocks, lies on a reef which extends 0.4 mile NE from the W entrance point of Guba Malaya Volokovaya. A set of lighted beacons, bearing 221°45' in line, leads into Guba Malaya Volokovaya.

Between Mys Zelenetskiy, 3.5 miles E of Mys Letinskiy, and Mys Chernyy, 1.8 miles E, the coast is indented by a bay.

Guba Zelenetskaya Zapadnaya extends 2.5 miles SW from the W part of the bay and Guba Dolgaya Zapadnaya extends 2.5 miles SSE from the E part of the bay. Mys Dolgiy, which separates the two bays, is a granite point rising in stone terraces. Mys Zelenetskiy appears as a low, reddish hill and Mys Chernyy, from which a light is shown, is composed of dark rock. It is reported that a prominent house and a large dish aerial stand on Mys Zelenetskiy.

1.27 **Guba Zelenetskaya Zapadnaya** (69°18'N., 33°45'E.) is bordered by a reef on its W side, at the entrance. A number of islets lie on this reef. There are also several islets near the head of the bay which are connected to the W shore by a drying shoal. Depths in the bay are too great for a secure anchorage, but vessels requiring a berth no more than 0.1 mile in diameter may anchor, in depths of 12.8 to 18m, SW of the southernmost inlet lying off the W entrance point.

Guba Dolgaya Zapadnaya (69°18'N., 33°49'E.), from a width of about 0.2 mile at its midpoint, branches into two inlets at its head. The shores of this bay are low and formed of granite. They are sloping at the entrance, but steep in the narrow part.

Ostrovok Chayachiy lies in the middle of the bay entrance and is connected to a point on the S side by a reef with a least depth of 5.5m. This islet is 17m high, bare, and is marked by a light. An above-water rock lies on the reef. A range, bearing 152°42', indicates the fairway channel leading through the entrance of the bay.

Ostrov Kil'din and Kil'dinskiy Proliv

1.28 **Ostrov Kil'din** (69°21'N., 34°11'E.), the largest island off Murmanskiy Bereg, lies with **Mys Byk** (69°21'N., 33°58'E.), its W extremity, located 9 miles ENE of Mys Letinskiy. The island is 9.2 miles long, 4.5 miles wide at its broadest part, and is separated from the mainland on the S side by Kil'dinskiy Proliv. The slate composition of the island is conspicuous in contrast to the gray granite of the mainland. Mys Byk is 288m high with its upper part being sheer. A light is shown from a structure standing on a point about 0.5 mile SE of Mys Byk.

Caution.—Restricted Area No. 125, into which entry is prohibited, lies 3 miles W of Ostrov Kil'din.

Another area closed to navigation (2013) lies within a radius of 5 miles from position 69°22'36"N, 33°49'36"E.

A dangerous wreck, with a depth of greater than 20m, lies about 12 miles NNE of the northernmost point of Ostrov Kil'din in position 69°33.6'N, 34°23.5'E.

1.29 Utes Likhoy (69°23'N., 34°03'E.), 181m high, is precipitous and prominent. The NW coast of the island between Mys Byk and Utes Likhoy consists of high cliffs. This coast is fringed by shallow water and rocks which extend up to 0.2 mile offshore. The N coast of the island E of Utes Likhoy also consists of high cliffs, which begin to descend in height toward the E end.

Kil'dinskiy Severnyy Light

Kil'dinskiy Severnyy Light (69°23'N., 34°09'E.) is shown from a tower, 19m high, standing 2 miles E of Utes Likhoy. A radiobeacon is situated at the light. A beacon stands on the summit of a hill, 2.2 miles SSE of the light.

An unlighted beacon, 28m high, stands at the E end of Ostrov Kil'din. Kamni Sunduki, a group of rocks lying on the foreshore near the E end of the island, is conspicuous against the background of the coast.

Kil'dinskiy Proliv (69°19'N., 34°00'E.) is entered from the W between Mys Byk and Mys Toporkova Pakhta, 1.5 miles SSW. It is entered from the E between the SE extremity of Ostrov Kil'din and Mys Chevray, 1.8 miles S. The strait is deep in the fairway except for Kil'dinskaya Banka, with a depth of 11m, which lies in the middle of the strait just within the W entrance.

The E tidal current attains a spring rate of nearly 1 knot in the W part of the strait, 3.2 knots in the middle of the narrows, and about 0.8 knot in the E part of the strait. The W tidal current has a spring rate of 0.8 knot in the W part of the strait, over 3 knots in the middle of the narrows, and 0.8 knot in the E part of the strait. In the narrows, the rate sometimes reaches 5 knots.

The strait never freezes, but during the winter, ice is carried through it by the tidal currents and sometimes the narrows become blocked.

Abnormal magnetic variations have been experienced in the strait.

Caution.—A partially submerged wreck is located close SE of Mys Byk in position 69°20'06"N, 33°59'08"E.

1.30 Bukhta Ruch'i (69°18'N., 34°05'E.) indents the coast for 0.5 mile, 3 miles E of Mys Toporkova Pakhta. The head of the bay, where there is a fishing village, consists of a sandy shoal which dries. A beacon is situated on the W entrance point of Bukhta Ruch'i. Vessels can anchor, in a depth of 17m, sand, guided by ranges. On the S shore of the bay, a rock, painted red and white, in range 186° with a beacon indicates the channel leading into the anchorage. The anchorage is also indicated by beacons of heaped stones standing on the E shore. These beacons, in range 104°, intersect the first range at the best anchorage.

Ostrov Malyy Kil'din (69°18'N., 34°09'E.), a small and rocky islet marked on its summit by a light, lies close off the S shore about 4.5 miles E of Mys Toporkova Pakhta. The passage lying between this islet and Mys Prigonnyy, close NE, forms the narrows of the strait. A light is shown from Mys Prigonnyy.

Guba Mogil'nyy (69°19'N., 34°18'E.) indents the S coast of Ostrov Kil'din 3.2 miles ENE of Mys Prigonnyy. The bay is bounded by a low, sandy, and stony peninsula ending at Mys Mogil'nyy. The N shore of the bay is high and steep. Depths in the center of the bay are 14 to 22m, mud, covered by sand.

An anchorage is centered near the middle of the entrance to Guba Mogil'nyy, with depths of 22m, good holding ground. This anchorage is sheltered from winds of all directions.

1.31 Mys Mogil'nyy (69°19'N., 34°21'E.), located 3.5 miles E of Mys Prigonnyy, is the extremity of a low promontory of sand and stone, which projects SW from the coast of Ostrov Kil'din. A light is shown from the point. Bukhta Mogil' naya is entered close NW of Mys Mogil'nyy. A village stands at the head of this bay.

The best anchorage in Kil'dinskiy Proliv lies in the middle of Bukhta Mogil'naya, in a depth of 22m, with good holding ground and sheltered from all winds. There is also good anchorage to the W of the above bay, in depths of up to 40m, sand and mud.

Two mooring buoys have been placed S of Bukhta Mogil'naya in the following positions:

a. 69°18'51"N, 34°18'04"E.
b. 69°18'41"N, 34°15'54"E.

A shoal area with least depth of 4.1m is located about 1 mile SW of Mys Mogil'nyy, as shown on the chart; it is marked by a beacon tower with black-red-black horizontal bands and two cylindrical topmarks.

Zarubikha Lighted Beacon and the Zarubikha-E Lighted Beacon are situated on the S shore of Kil'dinskiy Proliv approximately 1 mile SW of Mys Mogil'nyy in position

69°18'06"N, 34°18'E and position 69°18'06"N, 34°19'06"E, respectively.

Mys Chevray (69°17'N., 34°24'E.), located on the S side of the E entrance, is formed by a low, rocky spit which is marked by a light. A submerged reef extends 0.3 mile NE from this point.

Close S of Mys Chevray is Guba Medvezh'ya where a mooring buoy is located in position 69°16'43"N, 34°24'36"E.

Caution.—A stranded wreck is located close W of Mys Chevray in position 69°17'32"N, 34°21'55"E.

Ostrov Kil'din to Mys Teriberskiy

1.32 Between Mys Chevray and Mys Tipunkov, 5.5 miles ESE, the coast is indented by three principal coves. Two islets, joined by a drying reef, lie in the entrance to the middle cove and are connected to the shore on the W side by a reef on which lie several drying rocks. Mys Tipunkov is composed of bare, reddish granite and is steep-to on its E side. This point is marked by a beacon.

Ostrov Malyy Oleniy (69°15'N., 34°45'E.) lies with its W extremity located 0.5 mile E of Mys Tipunkov. This island is 3.8 miles long, nearly 1 mile wide, and is separated from the mainland by a strait which is 0.2 mile wide at its narrowest part. The island is difficult to distinguish from a distance. Its E end terminates in a low point which is joined to the island by a drying reef. The E end of the island is marked by a light. The island is bisected in a NE/SW direction by a deep defile.

Malyy Oleniy Light

Guba Klimkovka (69°14'N., 34°39'E.) indents the coast 0.5 mile between cliffy shores close S of Mys Tipunkov. The head of this bay is obstructed by a sand bar through which empties a drying lagoon. Reka Klimkovka flows into the head of the lagoon. Boats can enter the river at high tide.

Between the E entrance point of Guba Klimkovka and Ostrov Bol'shoy Zelenyy, 3.5 miles ESE, the S side of the strait is fringed by numerous islets which are connected to the shore by shallow reefs. However, none of these islets lie farther offshore than 0.2 mile. Two lighted beacons, in range 277°30', stand close S of Mys Tipunkov and lead through the strait.

Ostrovok Stanovoy lies on a reef extending from the S shore of the strait, 1.5 miles ESE of Mys Tipunkov. The fishing village of Malo-Olen'ye stands on the shore of a cove, 0.3 mile SW of this islet. Vessels can anchor off the village, in a depth of 37m, sand and shells, with shelter from all winds. The anchorage is sometimes exposed to a swell during strong NW or W winds.

Mys Dolgiy (69°13'N., 35°03'E.) lies 5 miles E of Ostrov Bol'shoy Zelenyy. The coast between is indented by three inlets. Guba Dolgiy, the largest of these inlets, is entered 1.2 miles W of Mys Dolgiy. The shores of this inlet are mostly high and steep, and there is a depth of 9m in the entrance. All three inlets are too exposed to the N winds to afford safe anchorage.

Mys Teriberskiy to Sem' Ostrovov

1.33 **Mys Teriberskiy** (69°15'N., 35°09'E.) is the NW extremity of a high, granite promontory. The point resembles a rounded hill. It is connected to the promontory by a relatively low isthmus and, from a distance, appears as an off-lying islet. A light is shown from a tower, 14m high, standing on the point. A radiobeacon is situated at the light.

Mys Teriberskiy Light

Guba Teriberskaya (69°13'N., 35°10'E.), one of the most important bays on Murmanskiy Bereg, is entered between Mys Dolgiy and Mys Teriberskiy, 3.2 miles NE. This bay does not freeze over. It was reported (2010) that underwater operations connected with contacting the sea floor in depths of less than 40m are permitted, with the exception of Area No. 92, due to explosive objects removal.

Mys Zhiloy (69°12'N., 35°08'E.) is a low granite point located 2 miles ESE of Mys Dolgiy. A light is shown from the point and a prominent radio tower stands 2.5 miles SSW of it.

Caution.—Submarine cables lie within Guba Teriberskaya and may best be seen on the chart.

1.34 Guba Orlovka forms the E bight of Guba Teriberskaya and from its S side, Guba Zavalishina indents the coast for 0.5 mile. Both of these indentations are free of off-lying dangers. The extreme S part of Guba Teriberskaya, S of Mys Zhiloy, is further indented by two coves, Guba Lodeynaya to the W and Guba Korabel'naya to the E.

Guba Korabel'naya (69°11'N., 35°11'E.), 0.5 mile in diameter, is entered S of Mys Deploranskiy, which lies 1 mile SE of Mys Zhiloy. A rock, which dries at low tide, lies in the approach to the bay and is marked by a buoy moored on its N side. The depths in the middle of the bay are 2.4 to 7.3m.

Guba Lodeynaya, a small cove, lies 1.2 miles S of Mys Zhiloy. Mys Vos'moy, the S entrance of the cove, is marked by a light. The entrance has depths of 20 to 26m, but shoals rapidly to the W. A village and three piers, which are used by small vessels at HW, are situated on the W side of the cove. A dangerous wreck, with a depth of 9.3m, lies close NE of Mys Vos'moy.

Anchorage.—Vessels may obtain anchorage in the E part of Guba Orlovka, about 0.2 mile from the mouth of a river, in a depth of 14m, sand.

Anchorage can be taken in Guba Zavalishina, about 0.2 mile from either shore, in a depth of 14m.

Small vessels can anchor E of the line joining the entrance points of Guba Lodeynaya, in depths of 35 to 40m. Small vessels can also obtain anchorage off Guba Korabel'naya, 0.1 mile from the N shore, in a depth of 9m.

The only anchorage for larger vessels is at the head of the inner part of Guba Teriberskaya, in a depth of 38m. It should only be used during S winds or calm weather.

1.35 Between Mys Teriberskiy and the W entrance point of Guba Voron'ya, 13 miles ESE, the coast consists of granite bluffs with occasional sloping points of land. The coast, which is steep-to and inaccessible for the most part, is indented by several inlets. A dangerous reef, on which there is a drying rock, extends 0.4 mile NE from the W entrance point of Guba Fedorovka, 1.8 miles WNW of Guba Voron'ya.

Guba Voron'ya (69°12'N., 35°46'E.), 1.5 miles wide at its entrance, is entered W of Mys Voroniy, a steep point. The W side of the bay is fronted by an islet and several drying rocks. The head of the bay is formed by a sandy slope and is fronted by a drying shoal.

Reka Voron'ya flows over a shallow bar which may be crossed by boats at HW. A number of buildings stand in a cove indenting the W side of Mys Voroniy. Temporary anchorage may be taken about 0.5 mile W of Mys Voroniy in a depth of 26m, but a heavy swell may develop during W winds.

1.36 Ostrova Voron'i Ludki (69°12'N., 35°49'E.) is a group of five islets. Ostrov Bol'shoy Voronukhi, the largest islet, lies 0.5 mile N of Mys Voroniy and is marked by a light, Ostrov Baklan, located 0.3 mile SE of Ostrov Bol'shoy Voronukhi, is nearly divided into two parts by a deep cleft. This islet has almost sheer cliffs and is steep-to.

Caution.—A dangerous wreck, submerged to a depth of more than 20m and marked by a buoy, is located NW of Ostrova Veron'i Ludki in position 69°13'N, 35°44'E.

Mys Remyaginskiy (69°11'N., 35°57'E.) lies 1.2 miles ESE of Mys Voroniy. A large above-water rock and a drying rock lie 100m NE and 200m ESE, respectively, of the point.

Guba Kemskaya, entered 0.4 mile W of Mys Remyaginskiy, is shallow and affords no anchorage.

Guba Gavrilovskaya, entered close W of Mys Remyaginskiy, extends 0.5 mile S. The entrance of this bay is narrow and passes between high cliffs. A drying spit extends from the E shore at the entrance. A fishing station, with several landing stages, is situated on the W shore of the bay. Anchorage may be obtained close N of the entrance to the bay, in a depth of 31m, stones. The steep point, which separates Guba Kemskaya from Guba Gavrilovskaya, has a wooden cross standing on its summit.

1.37 Ostrova Gavrilovskiye (69°10'N., 35°57'E.), a group of four islands, is located on a reef which lies parallel to and at a distance of 0.2 to 0.8 mile off the coast. Ostrov Bol'shoy Gavrilovskiye, the largest and northernmost island, is 0.8 mile long and 0.2 mile wide. A rocky patch, with a depth of 1.2m, lies 0.1 mile NNW of the N end of this island.

Small vessels can anchor about 150m off the middle of the SW coast of Ostrov Bol'shoy Gavrilovskiye, in a depth of 16m, stones.

Guba Podpakhta (69°09'N., 35°56'E.), 0.5 mile long, is entered between Mys Krutik, 2.5 miles SE of Mys Remyaginskiy, and a sheer cliff, 0.5 mile WSW. The head of this bay, where a village stands, is low, sandy, and fronted by a drying shore bank. There is a depth of 14m in the entrance which shoals gradually toward the head.

Small vessels can anchor in the middle of the bay, in a depth of 10m, sand. Small craft can anchor in a cove on the W side of the bay, in a depth of 6m, sand and stone.

Ostrov Bol'shoy Gusinets lies 1 mile SE of Mys Krutik and has prominent, steep sides. A rock, awash, lies 0.1 mile off the NE extremity of this island.

Ostrova Malyy Gusintsy, a group of three islets, lies 0.3 mile SE of Ostrov Bol'shoy Gusinets. A rock, which dries, lies 0.2 mile ESE of this group.

Guba Yarnyshnaya (69°07'N., 36°03'E.), a narrow inlet, is 3 miles long. It is entered between a point, located close S of Ostrova Malyy Gusinets, and Mys Yarnyshnyy, 1 mile E. Both entrance points and the outer part of the inlet are steep-sided. Several conspicuous buildings stand close within Mys Yarnyshnyy. Anchorage can be obtained in the outer part of the inlet, in depths of up to 27m, sand.

1.38 Mys Dernistyy (69°08'N., 36°05'E.), marked by a beacon, lies 5.5 miles SE of Mys Remyaginskiy. A tall pylon stands 1 mile SW of the beacon.

Guba Zelenetskaya is entered between Mys Dernistyy and Mys Zelenetskiy, 1 mile SE. Ostrova Zelenetskiye consists of a group of five islets, mostly bare, and several above-water rocks. This group occupies a large part of Guba Zelenetskaya. The narrow channels, which lead between the islets, are encumbered with rocks and partly dry. Anchorage can be obtained by small vessels with local knowledge off the S side of the largest islet, in depths of 5 to 14m, sand and mud.

Guba Shel'pinskaya (69°06'N., 36°12'E.) is entered between Mys Pakhta Shel'pinskaya and Mys Glyaden, 1 mile ESE. This bay is much encumbered with groups of low-lying islands, islets, and rocks. Temporary anchorage can be taken

by small vessels 300m NNE of Ostrov Savina, the southernmost islet, in a depth of 20m, sand and stones.

Mys Skala (69°05'N., 36°19'E.) is formed by a prominent steep cliff of red granite.

Ostrov Bol'shoy Oleniy (69°04'N., 36°22'E.), about 2.2 miles long and 59m high, lies with its N end located 0.5 mile E of Mys Skala. A light is shown from a tower, 24m high, standing at the NW end of this island. A radiobeacon is situated at the light and two masts stand 1 mile SE of it.

An islet lies close off the E end of the island and rises to a conical summit from which a light is shown. The S coast of the island is steep-to and has no off-lying dangers except for a shoal, with a depth of 11m, which lies 0.4 mile SE of this islet.

Bol'shoy Oleniy Light

Guba Porchnikha (69°05'N., 36°17'E.), 1.2 miles long, is entered between Mys Skala and a point 0.5 mile SW. The head of the bay, which is sandy and strewn with rocks, dries up to 0.5 mile offshore. A settlement stands 0.5 mile W of Mys Skala. An anchorage berth, about 300m in diameter, lies 0.4 mile within the entrance. It has a depth of 29m over a bottom of sand and stones. Small craft can anchor closer to the head of the bay.

Guba Yuzhnaya lies on the W side of the peninsula of which **Mys Vostochnyy** (69°03'N., 36°22'E.) is the N extremity. The head of this bay dries and is divided into two parts by a tongue of land. Two islets, surrounded by a drying rocky shoal, lie close off the extremity of the tongue of land. A shallow reef lies 0.4 mile N of the E side of Mys Vostochnyy. An isolated shoal patch, with a depth of 8.5m, lies about 0.2 mile NNW of the same point.

1.39 Guba Zakhrebetnaya (69°02'N., 36°26'E.) lies on the W side of a small peninsula. The head of this cove dries and lies at the foot of a valley in which a settlement stands. A drying rock lies in the entrance to the cove, which is not suitable for anchorage.

Guba Shcherbinikha (69°02'N., 36°27'E.) lies close E of Guba Zakhrebetnaya and consists of two separate coves. The E cove is shallow and has a rocky entrance. The W cove has depths of up to 11m in its outer part and can be used as for temporary anchorage during S winds.

Guba Tryashchina (69°01'N., 36°32'E.) is entered 2 miles SE of Guba Shcherbinikha. A spit, which dries, extends about 300m NE from the E entrance point. A settlement, with a black house, stands on the SE side of the head of this inlet, 1.5 miles within the entrance. Anchorage can be obtained by vessels of moderate size, in depths of 24 to 29m, sand over clay, good holding ground, 0.5 mile within the entrance. Small craft can anchor 0.5 mile farther SW, in the lee of an islet lying close to the SE shore.

Guba Shirokaya and Guba Vyashchina, two small inlets, lie on the W side and 1 mile SSE, respectively, of **Mys Malyy Vyaschin** (69°00'N., 36°37'E.).

Anchorage can be obtained by vessels with local knowledge, in depths of up to 22m, within a bay which is entered between a point, located 3 miles SE of Mys Malyy Vyaschin, and Mys Kabaki, 1.2 miles SE. A cross stands on the W entrance point. Guba Peschanaya is a cove lying on the E side of Mys Kabaki.

1.40 Guba Rynda (68°56'N., 36°50'E.), lying 2 miles SE of Mys Kabaki, is an open bay. It has rocky and steep shores except at the head, which is low and sandy. A river flows into the head and close within its mouth stands the village of Rynda. The shore close N of the river mouth is fronted by a group of reefs, rocks, and islets which extends up to about 0.8 mile seaward. Ostrov Zelenyy, the southeasternmost islet of this group, is marked on its W side by a beacon. A beacon stands on the E entrance point of Guba Rynda. Vessels of moderate size can anchor about 200m SE of Ostrov Zelenyy, in depths of 16 to 18m.

Guba Zolotaya (68°53'N., 37°03'E.) is entered 5.5 miles SE of the entrance to Guba Rynda. A light is shown from its E entrance point. The shore of the head of this cove is low, sandy, and conspicuous in clear weather because of its golden color. A river empties into the head and settlements stand on each bank. Vessels can anchor, in a depth of 26m about 140m ESE of an islet which lies off the NW entrance point of the cove. Vessels can also anchor, in a depth of 22m about 0.2 mile SSE of this islet.

Sem' Ostrovov

1.41 Sem' Ostrovov (68°48'N., 37°26'E.), a group consisting of seven islands and several islets, fronts the coast between **Mys Chegodayev** (68°50'N., 37°11'E.) and Mys Plekhanov, 10.5 miles SE. This group extends 0.8 mile to 2 miles offshore. The anchorage roadstead, known as Semiostrovskiy Reyd, lies between this group and the mainland coast.

Ostrov Kharlov (68°49'N., 37°20'E.), the largest and westernmost of the islands in the group, lies 3 miles ESE of Mys Chegodayev. A light is shown from a tower, 11m high, standing near the middle of the island. A radiobeacon is situated at the light.

Ostrovki Kharlovskiye Baklyshi, a group consisting of three bare rocky islets and three drying rocks, lies 0.4 mile E of the SE extremity of Ostrov Kharlov. The tallest islet of this group is 9m high and surrounded by foul ground.

Ostrov Bol'shoy Zelenets lies 1 mile SE of the SE extremity of Ostrov Kharlov. This island is 48m high and can be easily identified against the gray background of the mainland. Ostrov Malyy Zelenets lies 300m SE of Ostrov Bol'shoy Zelenets and is 29m high.

Ostrov Veshnyak (68°46'N., 37°30'E.) lies 0.5 mile SE of Ostrov Malyy Zelenets and appears as two islands. A prominent cross stands on the NW extremity of this island. A beacon stands on the SE side of the island, but has been reported

to be missing. The passage leading between Ostrov Veshnyak and Otrov Malyytenets has a depth of 6.7m.

Ostrov Kuvshin (68°44'N., 37°32'E.), marked by a light, lies 1.2 miles S of the SE extremity of Ostrov Veshnyak. The seaward side of this island is very steep and can be easily identified. Several drying rocks lie close SE of the island.

Semiostrovskiy Reyd (68°47'N., 37°25'E.) is entered from the NW between the E entrance point of Guba Shirokaya and the SW extremity of Ostrov Kharlov, 1 mile ENE. The SE entrance lies between Ostrov Veshnyak and Ostrov Kuvshin. The four outer islands of Sem' Ostrovov form the NE side of this roadstead.

1.42 Reka Kharlovka (68°49'N., 37°20'E.) enters the sea 1 mile SE of the E entrance point of Guba Letnyaya. A village is situated along both banks of the river and can be approached by boats at HW. A prominent point is located 0.5 mile NNW of the mouth of the river and is distinctly silhouetted against a background of hills some distance inland. Mys Glyaden, located on the E side of the mouth of the river, is formed by a cliff and surmounted by a cross.

Guba Plekhanova (68°44'N., 37°32'E.) lies 1 mile S of Ostrov Kuvshin and is entered close W of Mys Plekhanov. Two drying rocks lie in the W part of the entrance. A point divides the head of this inlet into two small coves. The W cove has a least depth of 6.8m and the E cove a least depth of 0.4m. The best anchorage berth for large vessels during N winds lies about 300m from the SW side of Ostrov Kharlov, in a depth of 29m, sand and stone. The S extremity of the island should bear about 106° and Ostrov Sikov should bear about 234°. Anchorage can be obtained during S winds anywhere off the mainland between the mouth of Reka Kharlovka and Ostrov Kuvshin, in depths of up to 40m, sand. During SE winds, the best anchorage berth lies off the W side of Ostrov Kuvshin, in depths of 24 to 29m, sand.

Caution.—Magnetic anomalies have been reported to exist in the vicinity of a position 7 miles E of Ostrov Kharlov.

Sem' Ostrovov to Mys Svyatoy Nos

1.43 Between Mys Chegodayev and Mys Svyatoy Nos, 70 miles SE, the bare, granite coast is very uniform and mostly steep with the hills rarely exceeding a height of 100m. However, the hills standing farther inland are higher and their slopes are covered with tundra and grass. Except in the inlets and around some of the islands, this stretch of coast is steep-to and vessels may safely pass, in clear weather, within 2 or 3 miles of all the projecting points. Ostrov Kharlov and Mys Svyatoy Nos form the best landmarks.

Guba Voyatka (68°43'N., 37°34'E.), entered 1 mile SE of Mys Plekhanov, is 1.5 miles long. A depth of 11m lies in the entrance, but the inlet is mostly shallow and its head is encumbered with rocks.

Ostrova Litskiye (68°42'N., 37°44'E.), lying 3.5 miles ESE of the entrance into Guba Voyatka, consists of two islands, Ostrov Bol'shoy Litskiy and Ostrov Malyy Litskiy. The passage lying between the islands, which is about 300m wide, has a least depth of 6m and the sea sometimes breaks heavily within it. The channel leading between the islands and the mainland is deep and free of dangers.

Mys Litskiy (68°39'N., 37°48'E.), located 6.5 miles SE of the entrance into Guba Voyatka, is the NE extremity of a low, bare promontory with rugged and steep sides. The bay lying on the NW side of this promontory is rocky. Several above-water rocks lie about 0.2 mile off the coast, 1 mile NW of Mys Litskiy. A light is shown from a tower, 17m high, standing 0.3 mile SSW of the point. Large vessels can obtain anchorage, in a depth of 22m, with this light bearing 290°. The bottom of this roadstead is formed by stones, sand, and coral

1.44 Guba Vostochnaya Litsa (68°38'N., 37°48'E.) is entered between Mys Litskiy and a point, l mile SSE. A river discharges over a sand bar, with a depth of 0.6m, close S of the root of Mys Litskiy. A village is situated along both sides of the river at the foot of dark-colored cliffs. Small vessels can anchor near the mouth of the river, in depths of 14 to 16m.

Guba Vostochnaya Polyutikha (68°47'N., 37°50'E.), entered 2 miles SSE of Mys Litskiy, is flanked by prominent steep, black cliffs. A small and low islet lies 0.3 mile NNE of the E entrance point. A rocky bar, which dries, lies midway between the entrance and the head of the inlet. Small vessels with local knowledge can anchor to seaward of this bar.

Ostrova Mertvetskiye (68°36'N., 37°53'E.) are two islets lying close together off a cove, 1 mile SE of the entrance to Guba Vostochnaya Polyutikha. A cross stands on the W and larger islet. Korabel'naya Pakhta, located 4.5 miles SE of these islets, is a black bluff which forms the SE entrance point of an inlet. This inlet has depths of 3 to 4m. A shoal, with a depth of 2.1m, lies 0.5 mile SE of the bluff and is steep-to.

1.45 Guba Chervyanka (68°32'N., 38°02'E.) is entered on the NW side of a point which lies close E of Korabel'naya Pakhta. The inner part of this inlet dries and there is a sandy beach at its head. Guba Sidorovka, 4 miles SSE of Korabel'naya Pakhta, has a prominent waterfall on its steep W shore. A river, which flows into the head of this inlet, can be entered by boats at half tide.

Guba Dvorovaya (68°27'N., 38°14'E.), entered 3.5 miles SE of Guba Sidorovka, has a depth of 23m lying within 0.2 mile of its head. A prominent headland is located on the E side of the entrance to this inlet. During strong N winds, a swell runs into the inlet and violent squalls descend between its steep sides. Shoals, with depths of 14.5 and 17m, lie 2.5 miles E and 2.8 miles ENE, respectively, of the entrance into Guba Dvorovaya.

Guba Kruglaya (68°25'N., 38°20'E.), 3 miles SE of the entrance into Guba Dvorovaya, is fronted by Ostrov Kitay, which has several crosses standing on its summit and is joined to the mainland by a drying reef. Guba Kruglaya is entered between the S side of this island and the mainland. The bay is completely icebound in winter. Small vessels with local knowledge can obtain anchorage in the middle of the bay, in depths of less than 6m, mud.

Nokuyevskiy Zaliv (68°24'N., 38°30'E.), an open bight, is entered between Ostrov Kitay and Mys Chernyy, 7 miles ESE. Four inlets lead S from this bight.

Ostrov Nokuyev (68°23'N., 38°28'E.), lying with its N extremity located 2.8 miles ESE of Ostrov Kitay, rises in its N part to a prominent dark hill with a rounded summit.

Guba Varzina (68°23'N., 38°23'E.) lies 2 miles SSE of Ostrov Kitay and indents the coast for 1.5 miles to the S. A settlement stands at the mouth of a river which empties into the head of this bay. The bay has depths of 9 to 27m in the entrance and shoals to a depth of 3.6m about 0.2 mile from the head. Ostrovok Ludka, a bare and rocky islet, lies 0.5 mile E of the E entrance point of the bay.

Guba Drozdovka (68°22'N., 38°27'E.) is entered on either side of Ostrovok Ludka, but the passage leading E of the islet is wider and deeper. A shoal, with a depth of less than 2m, lies 0.2 mile off the W shore of the inlet, 1 mile S of the islet. A lighted range stands on the W side of the inlet and, bearing 182°, indicates the fairway leading E of Ostrovok Ludka. Lights are shown from the E and W sides of the inlet.

Anchorage.—During S winds, temporary anchorage can be obtained off the entrance to Guba Varzina, in a depth of 22m, stones.

A good anchorage lies 20 miles S of Ostrovok Ludka, slightly nearer to the W shore, in depths of up to 31m, mud. However, vessels must take care to avoid a shoal, with a depth of less than 2m, lying about 1 mile S of the islet.

1.46 Mys Chernyy (68°23'N., 38°39'E.) is the low N end of a promontory which forms the E shore of **Zaliv Vostochnyy Nokuyevskiy** (68°22'N., 38°35'E.). A black cliff, which is separated from the hills inland by a narrow depression, stands near the extremity of the point. This causes the point to resemble an islet when seen from the E. A light is shown from a structure, 20m high, standing 0.2 mile within the point. A radiobeacon is situated at the light.

Guba Ivanovskaya (68°20'N., 38°30'E.) is entered between the E extremity of Ostrov Nokuyev and the N extremity of Poluostrov Ivanovskiy, 0.8 mile SE. Depths of less than 10m extend up to 0.2 mile from both entrance points. The fairway channel, within 1 mile of the entrance, has a least width of 300m and leads between banks on either side. The ice in the N half of Guba Ivanovskaya breaks up during N winds, but it is probable that even a large vessel can lay up for the winter in the S half.

The bay is generally clear of ice by the middle of April. Range lights, aligned 215°, may be shown on request and indicate the channel leading into the bay. The best anchorage berth lies on the alignment of the E extremity of Ostrov Nokuyev and the W extremity of Poluostrov Ivanovskiy, bearing about 012°. This berth lies 0.4 mile S of the latter point and has depths of 40 to 51m, mud.

1.47 Guba Shuritskaya (68°21'N., 38°36'E.), 10.5 miles long and 1 mile wide, is entered 1.5 miles SW of Mys Chernyy. Its E shore is steep and the W shore is fringed with rocks and an islet. Vessels can anchor in the middle of the entrance to this inlet, in depths of 33 to 44m.

Mys Vzglav'ye (68°16'N., 38°58'E.), located 9 miles SE of Mys Chernyy, is the reddish granite extremity of a small peninsula which extends ESE from the coast. Two islets and a drying rock lie close E of the point. Anchorage can be obtained in a bay, which is entered on the S side of the point, in depths of 13 to 17m.

Between Mys Vzglav'ye and the entrance to Guba Savikha, 5.5 miles SE, the coast becomes steeper. The gap in the coastline made by Guba Savikha is conspicuous from a distance of 10 to 15 miles. The E entrance point of Guba Savikha is prominent because of the black color of the granite on its N and W sides.

Guba Savikha (68°12'N., 39°08'E.), with high and steep shores, is clear of dangers on its E side. From a width of 1 mile at its entrance, the inlet narrows toward its head where it divides into two coves. Anchorage can be obtained, during offshore winds, in the middle of the inlet, in depths of 27 to 29m.

Caution.—A prohibited area, the limits of which are shown on the chart, lies centered 4 miles SE of the entrance to Guba Savikha and extends up to 3 miles offshore.

1.48 Svyatonosskiy Zaliv (68°04'N., 39°44'E.) lies between Svyatonosskiy Poluostrov, a peninsula 8 miles long, and the mainland shore, to the SW. The bay is entered between Ostrov Chaichiy and Mys Svayatoy Nos, 8 miles ENE. The E shore of the bay is considerably steeper than the SW shore.

Ice.—The bay never freezes over, but in winter, floes from the White Sea are carried into it. The floes usually begin to pile up off Mys Svyatoy Nos in January, but no significant accumulation of ice has been observed there as late as March.

Tides—Currents.—Tidal currents off the SW shore of the bay run NW and SE at rates of about 1.5 knots. In the middle of the bay, on the parallel of Ostrov Chaichiy, they run WNW and ESE. Off the E shore, a constant current sets N.

Off Mys Svyatoy Nos, overfalls usually occur which are especially strong during the NW current and are dangerous for small vessels. They extend up to 6 miles NE and E from the point when the tide is rising and up to 6 miles N when it is falling. These overfalls often cause a heavy sea, especially during E winds.

Anchorage.—Anchorage can be obtained by large vessels in all parts of Svyatonosskiy Zaliv during winds from between S and E. However, if the wind shifts and blows from between N or NW, vessels should leave.

1.49 Guba Lopskoye Stanovishche (68°07'N., 39°47'E.), a small cove, lies 2 miles SSE of Mys Svyatoy Nos and indents the NE shore of the bay. It is flanked by high and dark-colored granite cliffs, but has grassy slopes at the head. Anchorage can be obtained just outside the entrance, during offshore winds, in a depth of 37m, sand and shells. The depths decrease rapidly inside the entrance of the cove.

Ostrova Iokangskiye (68°05'N., 39°32'E.), a group of islands, forms the SW part of Svyatonosskiy Zaliv. The islands lie close to the mainland from which they are separated by a narrow passage known as Iokangskiy Reyd. The three northwesternmost islands of the group are separated by a passage, 0.5 mile wide, which is the only feasible entrance channel leading to the roadstead. Ostrov Vitte, the largest and tallest

island, is 2.5 miles long and lies close SE of Ostrov Chaichy. The strait leading between these islands is encumbered by islets and rocks. A light is shown from a structure standing on a conspicuous cliff at the S extremity of Ostrov Vitte.

Caution.—A dangerous wreck, marked by a lighted buoy moored close E of it, lies on a shallow bank.

Safe navigation is not possible between Ostrova Iokangskiye and the mainland due to the presence of several submerged wrecks, some with masts showing and many rocks encumbering this area, as shown on the chart.

Ostrov Medvezhiy (68°03'N., 39°37'E.) lies 1.5 miles ESE of the E extremity of Ostrov Vitte. A light is shown a structure standing on the NW part of the island. A beacon stands close WSW of the light. The island is 1 mile long and much indented on its N side.

1.50 Iokangskiy Reyd (68°03'N., 39°34'E.) lies between Ostrova Iokangskiye and the mainland. It has a length of 6 miles and extends from the W side of Ostrov Chaichiy to the mouth of Reka Iokanka. In the NW part of this roadstead, the mainland, as far SE as the middle of Ostrov Vitte, is fronted by extensive shoals with depths of less than 5.5m. Rocks and islets lie scattered on these shoals and extend up to 0.2 mile offshore in places. The main entrance to the roadstead, which lies between Ostrov Sal'nyy and Ostrov Medvezhiy, is accessible to all vessels. The NW entrance channel, which leads between the W side of Ostrov Chaichiy and the mainland, has several unmarked dangers lying in it and should not be used by vessels with drafts exceeding 5m. Three range lights, aligned 204°36', indicate the fairway leading through Proliv Bol'shaya Voroma, the principal entrance channel.

Range lights are shown from Ostrov Zelenyy and, bearing 125°45' astern, indicate the channel leading into the NW part of the roadstead. A shoal, with a depth of 5.8m, lies in the middle of the roadstead, about 1.2 miles WNW of a prominent red cliff on the SW side of Ostrov Vitte. The channel lying between Ostrov Vitte and Ostrov Sal'nyy can be used by small vessels with local knowledge.

Bukhta Observatornaya (68°03'N., 39°32'E.), lying on the SW side of the roadstead, is entered 0.8 mile SSW of Ostrov Sal'nyy. A shoal lies on the SE side of the approach and is marked by a buoy. A pier, 122m long, projects from the W shore of the cove and has depths of 9m alongside its head and 4m alongside its inner end.

Guba Gremikha is entered between a point, located 0.5 mile NNW of Bukhta Observatornaya, and another point, 0.4 mile WNW. A low islet, lying 0.2 mile W of the E entrance point, is connected with the SE shore by a bridge. A buoy, moored close N of this islet, marks the NW edge of a bank. A landing stage is situated on the W side of the islet and can be used by vessels not exceeding 59m in length. A narrow channel, with a least depth of 4.6m, leads to this landing stage.

Mys Svyatoy Nos (Svetonosky) Light

Anchorage.—The best anchorage berth in Iokangskiy Reyd lies within an area extending 1 mile NW from the alignment of the E extremity of Ostrov Vitte with the NW extremity of Ostrov Sal'nyy. This anchorage has depths of 9 to 18m, mud and sand. Moderately secure anchorage can be obtained 0.3 to 0.5 mile S of Ostrov Sal'nyy, in depths of up to 25m, sand.

1.51 Mys Svyatoy Nos (68°09'N., 39°46'E.) is one of the most prominent landmarks along this coast. It is the rocky N extremity of a peninsula which extends 8 miles NNW from the general line of the shore. This peninsula is 79 to 91m high in its central part, but is lower at the N end. A light is shown from a tower, 22m high, standing 1.2 miles within the point. A radiobeacon is situated 1 mile NNW of the light. A deep ravine, which is located 2 miles within the point, makes the N part of the peninsula appear as an island when viewed from the N.

Caution.—A Traffic Separation Scheme lies centered 6.5 miles NNW of Mys Svyatoy Nos and may best be seen on the chart. Traffic lanes lead in a SE/NW direction past the point and also join the scheme from the NE. Recommended tracks lead SE from this scheme along the coast.

This scheme is not IMO-adopted. However, the Russian authorities state that Rule 10 of the International Regulations for Preventing Collisions at Sea (1972) applies.

Two unexploded ordnance areas, which may best be seen on the chart, lie about 18 miles NNE of Mys Svyatoy Nos.

The White Sea (Beloye More)

1.52 The White Sea, known to the Russians as Beloye More, is entered between Mys Svyatoy Nos and Mys Kanin Nos, 85 miles ENE. It extends generally SW for 300 miles to the town of Onega, and on its SE side lies the port of Arkhangel'sk. The sea is comparatively shallow and free of ice from June through October. The N part of the sea contains a few islands and is greatly encumbered by extensive reefs and shoals. Two feasible channels lead between the dangers. Kaninskiy Channel lies off the E shore and Terskiy Channel lies off the W shore.

Caution.—Local magnetic anomalies are reported to be considerable at the entrance to the White Sea. Care should be exercised when navigating in the vicinity of land and when in shallow water.

Formerly mined and dangerous areas, the limits of which are shown on the chart, lie in the entrance to the White Sea. They are open to navigation, but anchoring is prohibited within them.

Mys Svyatoy Nos to Reka Ponoy

1.53 Guba Volokovaya (68°08'N., 39°48'E.) lies 1.8 miles SE of Mys Svyatoy Nos. This cove is encumbered with rocks and dries. It can be entered by boats between half tide and HW.

Guba Korov'ya, 10.5 miles SE of Guba Volokovaya, lies on the W side of Mys Koroviy Nos from which a light is shown. This cove affords anchorage to small vessels with local knowledge.

Guba Startseva (67°56'N., 40°10'E.), 4 miles SE of Mys Koroviy Nos, has a depth of 7.8m in the entrance. This cove divides into two arms, the heads of which dry. Small craft, with local knowledge, may obtain anchorage in the W arm, but they may ground at LW.

Mys Krestovyy (67°54'N., 40°20'E.) is the E entrance point of Guba Kakovikha, a creek, which dries and affords shelter to small craft with local knowledge. Some flat rocks, which dry, lie on a reef extending 0.2 mile NE from the point. Banka Moriston, with a depth of less than 2m, lies charted 3 miles NE of Mys Krestovyy, but its position is doubtful.

Lumbovskiy Zaliv (67°48'N., 40°26'E.) is entered between Mys Kakovikha, 1.2 miles SE of Mys Krestovyy, and **Mys Obornyy** (67°48'N., 40°38'E.). Ostrov Lumbovskiy, lying in the entrance to the bay, has a beacon standing on its summit. The principal entrance channel leading into the bay passes between **Ostrov Baklan'i Ludy** (67°50'N., 40°28'E.) and Ostrov Shchukiny, lying 1.2 mile WNW.

Caution.—A prohibited area, the limits of which are shown on the chart, lies centered off the entrance to Lumbovskiy Zaliv and extends up to 7 miles from the coast.

1.54 Mys Bol'shoy Gorodetskiy (67°44'N., 40°54'E.), the NE extremity of a prominent headland, lies 7 miles SE of Mys Obornyy. It is very prominent, being high and light in color. Banka Edzhent, with a depth of 0.6m, lies about 2.5 miles WNW of the point, but its position is doubtful. Guba Gorodetskaya is entered between the point and Mys Malyy Gorodetskiy, 1.5 miles SE. Anchorage can be obtained at the head of this bay by small vessels with local knowledge.

Gorodetskiy Light

Guba Sazonova (67°42'N., 40°59'E.), a creek, is located 1 mile SE of Mys Malyy Gorodetskiy. Its shores are backed by cliffs. Gorodetskiy Light is shown from a tower, 19m high, standing on the summit of a hill on the S shore of this creek. A radiobeacon is situated at the light and several buildings stand close W of it.

1.55 Guba Nemetskaya Vilovataya (67°40'N., 41°00'E.) lies 1.5 miles SSE of Gorodetskiy Light. This bay affords anchorage to small vessels with local knowledge. Guba Panfilova, entered 7.5 miles S of Guba Nemetskaya Vilovataya, is also used as an anchorage for small vessels with local knowledge. A local magnetic anomaly has been reported to exist in this bay.

Mys Ostraya Ludka (67°26'N., 41°06'E.) lies 8 miles SSE of Guba Panfilova and is the SE entrance point of a creek which dries. A light is shown from a structure standing 0.8 mile S of the point.

Mys Orlov-Terskiy Tolstyy (67°12'N., 41°20'E.), located 13 miles SSE of Mys Ostraya Ludka, is the NE extremity of Tersko-Orlovskiy, a bold headland. A reef, which dries, extends about 0.8 mile NNW from the N part of this headland.

Tersko-Orlovskiy Light is shown from a tower, 20m high, standing on the headland. A radiobeacon is situated at the light.

Tersko-Orlovskiy Light

Banka Rusinga, with a depth of 4.3m, lies 3 miles SSE of the light. A conspicuous radar scanner is situated 6 miles SSW of Mys Orlov-Terskiy Tolstyy. A local magnetic anomaly was reported to exist in the vicinity of this point.

Caution.—A Traffic Separation Scheme has been established off Ostraya Ludka, extending between 67°40'N and 67°05'N. Traffic lanes leading from N, NNE, and S converge at a roundabout, and may best be seen on the chart. Recommended tracks, shown on the chart, lead N and S from the traffic lanes.

This scheme is not adopted by the IMO. However, the Russian authorities state that Rule 10 of The International Regulations for Preventing Collisions at Sea (1972) applies.

1.56 Ostrov Veshnyak (67°07'N., 41°24'E.) lies 5.5 miles SSE of Mys Orlov-Terskiy Tolstyy. A light is shown from a tower, 25m high, standing on the middle part of this island. Anchorage may be obtained SSW of the island, in a depth of 6m, but it is not recommended as the holding ground is poor and the currents attain velocities of 3 to 4 knots.

Ostrov Tabachnyy Kuvshin, lying close offshore and 3.5 miles SSW of Ostrov Veshnyak, is a steep, granite islet. Ostrov Goryainov, lying 1 mile S of Ostrov Tabachnyy Kuvshin, is rocky and covered with tundra and green moss.

Veshnyak Island Light

Ostrova Ponoyskiye Ludki (66°59'N., 41°20'E.), a group of small and bare islets, lies on the E edge of the drying coastal bank which extends from the N entrance point of Reka Ponoy. A light is shown from a structure standing on the southeasternmost islet of the group.

Reka Ponoy (67°00'N., 41°15'E.), one of the largest rivers in Poluostrov Kol'skiy, discharges through a steep-sided gorge between Mys Korabel'nyy and Mys Krasnyy, 2.2 miles S. The river entrance is conspicuous from the S and E. The village of Ponoy is situated on the SW bank, 7.5 miles upstream. The river estuary is filled with drying banks except for a narrow and tortuous channel which is only suitable for small craft with local knowledge. The ebb tidal current attains a rate of more than 3 knots at springs. Anchorage can be obtained in a roadstead, in depths of 10 to 12m, close E of the N entrance point of the river. The preferred anchorage berth lies close to the southeasternmost islet of Ostrova Ponoyskiye Ludki.

Severnyye Koshki

1.57 Near the middle of the N part of the White Sea, there is an extensive area of shoals, known as Severnyye Koshki. These shoals occupy an area which extends about 43 miles in a N/S direction and about 35 miles in an E/W direction. Navigation in the vicinity of these shoals is not recommended without local knowledge. The shoals are disposed in four ridges, each of which lies in the direction taken by the tidal currents.

The first or SW ridge includes Bol'shaya Orlovskaya Koshka, Trekhostrovskaya Koshka, and Goryainovskaya Koshka. A lighted buoy is moored 3 miles NNW of the N extremity of Bol'shaya Orlovskaya Koshka. The second ridge from SW is formed by Bol'shaya Srednyaya Koshka, the S part of which is Banka Litke. The third ridge from SW

is Konushinskaya Koshka and the northeasternmost ridge is Mel' Kiyskaya.

Gorlo

1.58 Gorlo, the channel connecting the N and S parts of the White Sea, extends 90 miles SW from its entrance adjacent to Reka Ponoy. The channel is considerably deeper on its NW side than on its SE side. Recommended tracks lead through Gorlo and may best be seen on the chart. The SW current runs obliquely across the channel from Ostrov Sosnovets to Mys Intsy, 30 miles S, and the NE current runs in the opposite direction. The velocity of these currents does not exceed 3.5 knots.

The coast extending from the mouth of Reka Ponoy to abreast Ostrov Sosnovets, 32 miles SW, is covered with tundra and white moss, and fissured by many red-colored ravines. There are no safe anchorages along this part of the coast, but vessels may anchor not less than 2 miles offshore, in depths of 18 to 27m. The best anchorage during fresh W winds lies in the SE part of Proliv Sosnovskaya Salma and is suitable for large vessels.

Ostrov Danilov (66°45'N., 41°05'E.), marked by a light, lies 12.5 miles SSW of the S entrance point of Reka Ponoy. This islet lies close off the coast to which it is connected by a drying shoal. A hill rising at the center of the islet is covered by conspicuous yellow moss.

Ostrov Danilov Light

Reka Pyalka (66°43'N., 41°00'E.) enters the sea, 2.8 miles SW of Ostrov Danilov. The banks at the entrance to this river consist of steep, bare rocks, and two drying rocks lie close off the S entrance point. The river entrance resembles a dark ravine covered with yellow moss. Gora Ploskaya, with a gently rounded top, lies 10 miles WNW of Ostrov Danilov.

1.59 Ostrov Sosnovets (66°29'N., 40°41'E.), 18 miles SW of Ostrov Danilov, is covered with tundra and has steep sides. A light is shown from a tower, 31m high, standing near the middle of this island. A radiobeacon is situated at the light and several radio masts stand close S of it. Lights are also shown from pyramids which stand on the N and S extremities of the island.

Proliv Sosnovskaya Salma separates Ostrov Sosnovetskiy from the coast. The village of Sosnovka stands on the coast, 2.5 miles W of the island. Anchorage may be obtained in the SE part of Proliv Sosnovskaya Salma, in a depth of 8m, with the light tower standing in the middle of the island bearing 100°.

Sosnovetskiy Light

Regulations.—A Traffic Separation Scheme has been established SW of Ostrov Sosnovets and may best be seen on the chart. Traffic lanes lead from NNE, SW, and SSW to a junction. Recommended tracks lead into these traffic lanes.

The scheme is not adopted by the IMO. However, the Russian authorities state that Rule 10 of the International Regulations for Preventing Collisions at Sea (1972) applies.

Caution.—A submerged anchor lies in unknown depths close off the NW coast of Ostrov Sosnovetskiy in position 66°29'54"N, 43°04'00"E.

1.60 Guba Glubokaya (66°26'N., 40°30'E.), entered 5.5 miles SW of Ostrov Sosnovets, dries. Reefs extend from both entrance points of this inlet and small craft can only enter at half tide. Guba Bol'shaya Bab'ya lies 5 miles SW of Guba Glubokaya and several huts stand on its E entrance point.

Mys Belyy Mokh (66°21'N., 40°14'E.) is prominent and covered with white moss which extends down to the water's edge. A rock, which dries, lies about 0.5 mile S of this point.

Mys Pogorel'skiy (66°17'N., 40°06'E.) lies 5 miles SW of Mys Belyy Mokh. The coast in the vicinity of this point is low and sandy, and the hills are covered with trees and bushes. Pulon'ga Light has been reported as destroyed in 2013.

Reka Pyalitsa (66°11'N., 39°32'E.) enters the sea between sandy, clay bluffs, 10 miles WSW of Mys Pulong'skiy Nos. The village of Pyalitsa stands on the E entrance point. A pair of beacons, in line bearing 007.8°, marks the channel.

Mys Nikodimskiy (66°06'N., 39°06'E.), 12 miles WSW of the entrance to Reka Pyalista, is backed by a high hill. A light is shown from a pyramid structure, 27m high, standing on the point. A radiobeacon is situated 0.3 mile SE of the light and a beacon stands 0.2 mile S of it. Anchorage may be obtained 1.2 miles E of the point, in a depth of 10m. Small vessels may find shelter off the SW side of a drying bank which projects from the point. Between Mys Belyy Mokh and Mys Nikodimskiy, shoals, with depths of less than 10m, lie up to 5 miles offshore in places.

Nikodimskiy Light

1.61 The coast, which is high and cliffy in the vicinity of Mys Nikodimskiy, slopes more gradually and is without cliffs at the mouth of Reka Chapoma, 5 miles W. The character of the coast continues as far as Tetrino, a village, which stands 15 miles farther W. The forest recedes inland at a distance of 2 to 3 miles from Mys Nikodimskiy and the coastal belt is covered with low trees, bushes, and marshes.

Chapoma (66°06'N., 38°52'E.) stands on the W side of the mouth of Reka Chapoma. A bar fronts the river entrance and channels lie on either side of it. The W channel is the deeper one, but has many rocks in it. The E channel is clear, but shallow, and should only be used by small craft. A shallow bank lies about 0.5 mile offshore, 4 miles SW of Chapoma.

Strel'na (66°04'N., 38°39'E.), a village, stands on the E side of Reka Strel'na, 5.5 miles WSW of Chapoma. The estuary of the river is entered between two sandy bluffs. It dries completely except for a narrow and shallow channel leading E of three islets which lie in the middle.

Mys Kamennyy (66°03'N., 38°20'E.), 8 miles W of the mouth of Reka Strel'na, is the W entrance point of Reka Kamenka. This river is only accessible by boats at HW. The village of Tetrino, which stands 2 miles W of Mys Kamennyy, has a prominent white church situated on a bluff.

Chavan'ga (66°06'N., 37°45'E.), a village standing on the E side of the mouth of Reka Chavan'ga, is situated 12 miles WNW of Tetrino. A white building, with three domes, stands behind the village and provides a good landmark. Shoals, with depths of less than 20m, lie up to 4 miles offshore in places between Mys Nikodimskiy and Chavan'ga.

1.62 Reka Varzuga (66°17'N., 36°55'E.), fronted by a sandy bar, lies 22 miles NW of Chavan'ga and is accessible by vessels with drafts of up to 2.4m. Two white buildings stand in Kuzomen, a village, which is situated on the SW bank of the river, 2 miles within the entrance. A light is shown from the W side of the mouth of the river. A drying sand bank extends 0.5 mile S from the E entrance point. The approach channel frequently changes position after prolonged onshore winds. Anchorage can be obtained about 1 mile off the mouth of the river, in a depth of 8m. A local magnetic anomaly has been reported to exist off the mouth of the river.

Kashkarantsy (66°20'N., 36°01'E.), a village, stands on a low promontory, 23 miles WNW of the mouth of Reka Varzuga. The church and a gray building, situated in the village, are easily identified from seaward. A light is shown from a tower adjoining a house, 24m high, standing in the village. A radiobeacon is situated at the light.

Kashkarantsy Light

A bank, with a depth of 0.3m, lies 0.5 mile S of the promontory. Anchorage can be obtained off the village, in a depth of 5m, but this roadstead it is not safe during fresh S winds.

Mys Ludoshnyy (66°21'N., 35°49'E.), 5 miles W of Kashkarantsy, is the NE entrance point of Kandalakshskiy Zaliv, which is described in paragraph 2.29.

Mys Kanin Nos to Mezenskiy Zaliv

1.63 Mys Kanin Nos (68°40'N., 43°17'E.), the E entrance point of the White Sea (Beloye More), forms the NW extremity of Poluostrov Kanin, a peninsula about 130 miles long. A light, equipped with a radiobeacon, is shown from a structure, 23m high, standing near this point.

The point is low and narrow, but is backed by a range of hills, the highest and most prominent of which attains a height of 188m about 6 miles ESE of the light. It is recommended that the point be given a wide berth.

A small roadstead, sheltered by a reef, lies 10 miles SE of Mys Kamin Nos and affords shelter to small craft. The approach is indicated by range beacons, but they are reported to be difficult to identify.

Kanin Nos Light

Reka Bol'shaya Bugryanitsa (68°14'N., 44°14'E.), 21 miles SE of Tarkhanov Light, is accessible to small craft at HW. A settlement stands 0.5 mile above the river mouth. A light is shown from the S side of the entrance.

Torna Light (68°04'N., 44°12'E.) is situated 1.2 miles N of the entrance to Reka Torna. Mys Vanchey, a bluff headland, lies on the S side of the mouth of Reka Torna.

Reka Shoyna (67°54'N., 44°07'E.) discharges into the sea from a wide opening, lying between two hillocks, and flows through a drying delta which extends 2.5 miles offshore. A light, equipped with a radiobeacon, is shown from the S entrance point of the river, close to the settlement of Shoyna. A lighted buoy is moored about 2.5 miles WNW of the light. The estuary dries and exposes numerous banks of clay and isolated rocks. The river is accessible at HW by vessels with drafts of up to 3.7m. However, local knowledge is required as the accuracy of the ranges should not be relied upon.

Shoyna Light

Caution.—It has been reported (2005) that depths are less than charted in the approaches to Reka Shoyna.

Mys Ludovatyy, located 3 miles SSW of the river mouth, has three prominent hillocks on its summit. A saddle-shaped hillock rises 1 mile S of the point. It is 12m high and easily identified from the N.

1.64 Reka Kiya (67°40'N., 44°11'E.) enters the sea 9 miles S of Mys Ludovatyy. Ostrov Morskaya Korga lies close off the N entrance point of this river. Kiyskiy Light is shown from a structure standing 0.4 mile SE of the S entrance point of the river. Anchorage can be obtained by small vessels on the S side of the estuary, in a depth of about 3m. Local knowledge is required.

Mys Lagyshev (67°33'N., 43°58'E.), a slight projection, is located 8.5 miles SSW of the S entrance point of Reka Kiya. A beacon stands on an isolated hill which rises near this point. Bogatyy Light is shown from a pyramidal structure standing 2 miles S of the beacon.

Mys Tolstik, 19 miles SSW of Mys Lagyshev, is 47m high and has a flat summit. This point is very prominent from seaward.

Mys Konushin (67°11'N., 43°47'E.), 2.5 miles S of Mys Tolstik, consists of crumbling and sandy clay cliffs, up to 30m high, with landslips in places. Anchorage can be obtained by small craft in a shallow bay indenting the E side of Mys Konushinskaya Korga, a low point located 4 miles SE of Mys Konushin.

Caution.—Vessels bound for the S part of the White Sea should follow the recommended routes leading along the W side of the entrance as there are numerous shoals, which are liable to change, lying up to 40 miles off the E shore. In addition, strong and irregular tidal currents sometimes attain rate of up to 5 knots off the E side of the entrance.

Mezenskiy Zaliv

1.65 Mezenskiy Zaliv (66°44'N, 43°50'E.) is entered between Mys Konushin and Mys Voronov, 55 miles SW. Vessels are warned that the depths in this gulf are subject to constant change due to the strong tidal currents. A number of banks lie in Mezenskiy Zaliv and can best be seen on the appropriate charts.

Ice.—Ice forms early in the gulf, but because of the strong tidal currents, the middle of the gulf is never covered with pack ice. Generally, navigation is only possible between the middle of May and the end of November.

Tides—Currents.—The current, during the flood tide, runs S along the banks extending off the E shore until the height of the tide exceeds the level of the banks. A bore is then formed which sweeps E over the banks toward the shore. This bore, which usually occurs about 4 hours before HW, attains a height of 2m and is dangerous as the force of the roller may carry vessels onto the banks.

1.66 Reka Chizha (67°04'N., 44°21'E.) discharges between Mys Korgovyy, a low point located 15 miles SE of Mys Konushin, and Chernyy Nos, a steep black cliff standing 1.2 miles S. The mouth of this river is approached through a narrow and tortuous channel. This channel leads over the drying coastal bank and has a least depth of 2.7m. A prominent beacon stands on Mys Korgovyy and four pairs of range beacons indicate the approach to the river mouth. Small vessels, with local knowledge, can anchor close off the river entrance.

Reka Nes' (66°39'N., 44°30'E.) discharges into the sea through a broad coastal depression, 24 miles S of Chernyy Nos. A lighted beacon stands close N of the low N entrance point. The river is approached through a narrow channel, which dries and can be used by small craft at half flood tide. A lighted buoy is moored about 10 miles WSW of the beacon.

Reka Mgla (66°29'N., 44°23'E.) lies 9 miles SSW of Reka Nes'. A narrow drying channel, with a least depth of 1m, leads over the coastal banks to the entrance of this river. The tidal currents in the river have rates of 2 to 3 knots. A light, equipped with a radar reflector, is shown from the N entrance point, but was reported (1989) to be destroyed. A village stands close within the river entrance.

Mys Ryabinov (66°11'N., 44°05'E.) lies 20 miles SSW of Reka Mgla. The coast between is about 9m high and covered with trees, but it rises steeply to a height of 15m near the point.

1.67 The two principal rivers of Mezenskiy Zaliv, Reka Kuloy and Reka Mezen, flow into the head of the gulf between Mys Ryabinov and Mys Kharin Nos, 10 miles W. The mouths of these two rivers are separated by a point of land which terminates at Mys Apovskiy. A shoal bank extends about 3 miles N from Mys Apovskiy and is marked by a lighted buoy.

Reka Kuloy (66°12'N., 43°39'E.) and its many tributaries have no commercial significance for shipping. The village of Dolgoshchel'ye stands 15 miles above the river mouth. Vessels should not attempt to enter this river without the assistance of persons from the village who will act as pilots. The best anchorage is in a depth of 9m about 0.8 miles WSW of **Mys Kargovskiy** (66°12'N., 43°43'E.). Small vessels can anchor anywhere in the mouth of the river, but not closer than 0.4 mile from the NW bank or 0.2 mile from the SE bank.

Reka Mezen (66°10'N., 44°00'E.) flows into the head of Mezenskiy Zaliv between Mys Ryabinov and Mys Maslyanyy. The latter point, from which a light is shown, is located 1.5 miles SE of Mys Apovskiy. This river freezes over only partially, but does so sometimes as early as the beginning of November. The ice usually breaks up in early May. Icebreaker assistance is not available at the anchorage.

Pilotage.—Pilotage is compulsory. Pilots board about 4 miles NW of Semzha in the vicinity of the entrance lighted buoy.

Pilots cannot board vessels earlier than 2 hours before HW in the Semzha river and vessels should be piloted into the port not later than 1 hour before the water in the river reaches its highest level. Vessels should request pilotage and give an ETA by radio 24 hours before their arrival at the pilot station. A confirmation should be sent 12 hours prior to arrival. Pilotage cannot be carried out at night. If pilots cannot board due to bad weather, vessels should follow the pilot boat to Mys Tolstik, located 7 miles above the mouth, where pilots will embark. Vessels should keep a constant watch on VHF when approaching and navigating within Reka Mezen.

Directions.—Reka Mezen can be approached from the N, or from the W, through Proliv Morzhovskaya Salma. When approaching from the W, which is the preferred route, vessels should steer to pass close S of No. 1 Lighted Buoy, moored 16 miles E of Mys Voronov, and close S of the lighted buoy marking Banka Okden, moored 3.2 miles NE of Mys Abramovskiy. When 9 miles E of Mys Abramovskiy, vessels should steer SE toward No. 2 Lighted Buoy, moored 7.5 miles N of Mys Apovskiy. They should then steer a SSE course toward the lighted buoy moored at the river entrance, 2.5 miles WSW of Mys Ryabinov. The channel leading to the inner roads is marked by ranges, beacons, and buoys.

1.68 Mezen (65°50'N., 44°11'E.) (World Port Index No. 62775) is a commercial port lying 22 miles S of the mouth of Reka Mezen. It is the only port open to foreign shipping in the N part of the White Sea and specializes in the export of timber products. The port is closed during the ice season, generally from November into May.

Courtesy of Digital Globe (June 2017)

Port of Mezen

Winds—Weather.—The direction of winds in the port and along the river are variable, with no specific direction being dominant.

Ice.—Drift ice will begin appearing in the gulf by early November with complete ice coverage of varying thickness from February through April. Icebreaker assistance cannot be utilized in the outer roads during the periods of fast ice that will occur during this time.

Tides—Currents.—The tidal range close N of the port at Kemenka is 1.6m at springs and 1.2m at neaps. Tides near the mouth of Reka Mezen at Semzha rise 6.2m at springs and 4.7m at neaps.

Depths—Limitations.—The entrance fairway has least depth of 0.9m.

The exact draft permitted for entry into the port is announced each month by the Port Authority. See the table titled **Mezen—Berth Information** for berthing details.

Mezen—Berth Information			
Berth	**Length**	**Depth**	**Remarks**
Mezen Berth	100m	3.5-4.0m	Timber
Floating Dock	120m	3.5-4.0m	Timber

Pilotage.—Pilotage is compulsory. Pilot boarding and port entry is available only during daylight hours. Entry into and departure from the port is allowed only at HW.

Pilots boards in the outer roads, as follows:

1. In the vicinity of Mezenskiy Lighted Buoy (66°10’30”N, 43°58’12”E.).
2. About 1.8 miles ESE of Mys Nerpinksiy Light (66°13’48”N, 43°44’24”E.).

If the pilot cannot board in the outer roads, vessels will follow the pilot vessel to Mys Tolstik (66°04'N., 44°05'E.), where the pilot will board. Pilots will not board vessels if the wind is greater than force 6.

Departing vessels disembark the pilot at Mys Tolstik.

Regulations.—The Barents Sea and White Sea (Beloye More) Reporting System is in operation for the approach to Mezen. For specific details on procedures to follow including a list of Control Points (Reporting-in Points) in this system see paragraph 1.1.

Vessels should establish contact as soon as possible with the Harbormaster and Port Dispatcher, reporting their ETA at the Mezenskiy Lighted Buoy at least 24 hours in advance. The ETA will be reconfirmed 12 hours in advance of arrival and a pilot requested at that time.

While in port, vessels must maintain a continuous listening watch on VHF channel 16.

Communication between vessels in port is done on VHF channel 6, provided that the radio equipment is set at minimum power.

Vessels may enter or leave only during the flood tide.

Contact Information.—The Port Radio (call sign: UZT) operates on 500 kHz. For further information, see the table titled **Mezen—Contact Information**.

Mezen—Contact Information	
Port Dispatcher	
Call sign	Kamenka Radio 2
VHF	VHF channels 9 and 16
PSSI (Port Controller)	
Call sign	Kamenka Radio 5
VHF	VHF channels 14 and 16
Harbormaster	
Telephone	7-8-184-894-081
Port Authority	
Telephone	7-8-184-894-341
Note.—All stations operate 24 hours.	

Anchorage.—Vessels can anchor approximately 0.8 mile NNE of Mezenskiy Lighted Buoy in depths of 5 to 7m, sand, mud, and rocks, with poor holding. Small craft can anchor in the entrance to Kuloyskaya Guba as best seen on the chart.

Caution.—Storm surges in spring raise the water level at the mouth of the river by 1.2m. A significant rise in water level may also be experienced in spring due to the melting snow.

1.69 Mys Malyy Perechnyy (66°18'N., 43°36'E.), 4 miles NW of the N entrance point of Reka Kuloy, is formed by a steep cliff of sandy clay. A prominent wood stands on the summit of the point.

A river, used by small craft, is entered 6 miles WNW of the point. A bank, which dries, extends 4 miles NE from the mouth of this river. Vysypnoy Light is shown from a structure, 10m high, standing 1.8 miles NNW of the river mouth.

Mys Abramovskiy (66°25'N., 43°15'E.), 10.5 miles NW of Mys Malyy Perechnyy, is prominent. This point slopes downward gradually toward the mainland and consists of a conspicuous, gray cliff marked by black landslides. A light is shown from a structure, 14m high, standing on the point. A radiobeacon is situated at the light.

1.70 Reka Koyda (66°22'N., 42°34'E.) flows into Mezenskiy Zaliv through an estuary lying close SE of Mys Strel’nichnyy. Gora Kovriga, 27m high, is a prominent hill standing on the S shore of the estuary. Yurovatyy Light is shown from a structure standing on a point, 2.5 miles N of the river mouth. Mys Strel’nichnyy, located 15 miles W of Mys Abramovskiy, is a narrow and sloping point which is fringed by drying rocks.

Mys Voronov (66°31'N., 42°15'E.), the SW entrance point of Mezenskiy Zaliv, is formed by a steep, sandy, and clay bluff. This bluff, which is located 26 miles WNW of Mys Abramovskiy, is 21m high and prominent. Several hills, covered with trees, rise 0.5 mile within the point and attain heights of up to 87m. A light is shown from a structure, 18m high, standing on the bluff; a radiobeacon is located at the light.

Morzhovskiy Light

Ostrov Morzhovets (66°43'N., 42°34'E.) lies in the W entrance to Mezenskiy Zaliv, 13 miles NNE of Mys Voronov. This island is oval-shaped, 8 miles long, and 4 miles wide. A light is shown from a tower, 30m high, standing on the W side of the island. A radiobeacon is situated at the light and a disused light tower stands close N of it. A light is also shown from the SE end of the island.

Several shoals, with a least depth of 2.8m, extend up to 11 miles N from the island. A group of shoals, with depths of 3 to 5m, extends about 5 miles N and NE of the island. Banka Servernaya Sibiryakov Nesyak, Banka Yuzhnaya Sibiryakov Nesyak, which have drying patches, and Banka Fal'kanzher, which has a least depth of 0.1m, lie 9 miles E, 8 miles SE, and 17 miles SE, respectively, of Ostrov Morzhovets.

Caution.—A dangerous wreck lies in depths of less than 20m about 29 miles NE of Ostrov Morzhovets in position 66°49'N, 43°04'E.

Zimniy Bereg

1.71 Zimniy Bereg (66°00'N., 41°00'E.) extends 90 miles SW from Mys Voronov to Mys Zimnegorskiy and forms the SE shore of Gorlo. Between Mys Voronov and the mouth of Reka Ruch'i, 37 miles SW, the coast becomes lower, the high black cliffs around Mys Voronov being replaced by those of sandy clay. The coast to the SW of Mys Intsy rises again and is approached by the inland hills, which reach the sea at Mys Lysunov.

Mys Tolstyy Nos (66°24'N., 42°01'E.) lies 9 miles SSW of Mys Voronov. This point can be distinguished by its crumbling slopes. A shoal patch, with a depth of 3m, lies about 3.5 miles NW of the point.

Reka Mayda enters the sea 4.8 miles SW of Mys Tolstyy Nos. This river is accessible by small craft at HW. A village stands on the S bank, 3 miles above the mouth. Mys Oleniy Nos is located 1.2 miles WSW of the mouth of the river and a light is shown from its S side.

Reka Megra (66°09'N., 41°35'E.), which can be only entered by boats at HW, flows through a conspicuous wide and winding valley and discharges between two low entrance points. A lighted beacon stands near the N entrance point.

Reka Ruch'i flows into the sea 11 miles SW of Reka Megra. The mouth of this river is fronted, for 0.3 mile, by a drying shoal over which boats can pass at HW. A village, with a conspicuous church, is situated on the S bank of the river and stands at a bend close within the entrance. A light is shown from a structure standing near the S entrance point of the river.

1.72 Mys Intsy (65°58'N., 40°42'E.) is the northeasternmost point of Zimniy Bereg and lies 13 miles WSW of the mouth of Reka Ruch'i. A light is shown from a structure standing 1.5 miles SW of the point. Inetskaya Banka, a shoal, lies 6 miles NNE of the point and has a least depth of 3.4m. A lighted buoy is moored near the SW extremity of this shoal.

Reka Tova (65°47'N., 40°25'E.) flows into sea between two low sandy banks 15 miles SW of Mys Intsy. The mouth of this river is easily distinguished as its N side is steep and its S side consists of a low sandy spit nearly 1 mile long. An islet lies in the middle of the entrance and channels lie on either side of it.

Intsy Light

1.73 Reka Zimnyaya Zolotitsa (65°41'N., 40°13'E.) enters the sea 3 miles SW of Mys Ostryy. A sandy spit, which dries, extends a considerable distance seaward from the S entrance point. There are depths of 2m in the entrance and up to 3m in the fairway inside the entrance. Two villages stand along the banks of the river. A light is shown from a structure standing 1 mile SW of the river mouth.

Mys Veprevskiy (65°38'N., 39°52'E.) is located 9 miles SW of Reka Zimnyaya Zolotitsa. A light is shown from a turret on a building, 11m high, standing on the point. A radiobeacon is situated at the light.

Mys Zimnegorskiy (65°29'N., 39°43'E.), located 9.5 miles SSW of Mys Veprevskiy, can be easily identified by its steep, blue-colored slopes. A light is shown from a prominent tower standing on this point. A valley, with very steep sides and a stream, lies on the S side of the point. Several buildings, with red roofs, are situated near the light and the coast in the vicinity is covered with dense forest.

Additional chart coverage may be found in NGA/DLIS Catalog of Maps, Charts, and Related Products (Unlimited Distribution).

Sector 2 — CHART INFORMATION

Sector 2
The White Sea (Beloye More)

Plan.—This sector describes Dvinskiy Zaliv, Onezhskiy Zaliv, and Kandalashskiy Zaliv. The descriptive sequence is from E to W.

Dvinskiy Zaliv

2.1 Dvinskiy Zaliv (65°00'N., 39°00'E.) is entered between Mys Zimnegorskiy, on the E side, and Mys Gorbolukskiy on the W side, 70 miles WSW. Reka Severnaya Dvina, which enters the SE corner of the gulf through an extensive delta, is the largest river to flow into the White Sea. The river is navigable by large vessels as far as the port of Arkhangel'sk.

Winds—Weather.—In Dvinskaya Guba, the prevailing wind is SW from September to November, and SE from December to April; from May to August, the wind enters the gulf from Gorlo and after rounding Zimniy Bereg becomes NW. The area is free of fog.

At the entrance to Onezhskiy Zaliv, strong NE winds pass over Ostrov Solovetskiy and into Solovetskiy Zaliv in violent N to ENE squalls. When there is an E to SE wind at sea, it is either calm in the bay or there is a gentle E to S wind, especially in fine weather. In general, Onezhskiy Zaliv has a mild climate, due to the shelter afforded it by the numerous high islets and its shores. During the winter, the prevailing winds are from the SE; during the summer, they are from a NW direction.

Regulations.—To ensure the safety of navigation, Reporting Points (Control Points) have been established along the 20-mile coastal strip (zone of observation) and in the White Sea (Beloye More). For further information, see paragraph1.1.

For information on the Northern Sea Route, see paragraph 1.2.

Directions.—A Traffic Separation Scheme (TSS) has been established off Mys Zimnegorskiy, extending S for about 7 miles then SE for another 4 miles and may best be seen on the chart. Recommended tracks, which are shown on the chart, lead N and SE from the traffic lanes of this TSS.

The above scheme is not IMO-adopted. However, the Russian authorities state that Rule 10 of The International Regulations for Preventing Collisions at Sea (72 COLLREGS) applies.

Caution.—Areas within which explosives are submerged and anchoring, bottom fishing, and submarine works are prohibited, lie in the waters described by this sector and may best be seen on the chart.

Dvinskiy Zaliv—East Side

2.2 Mys Kerets (65°20'N., 39°43'E.), the extremity of which is low and covered with grass, lies 9 miles S of Mys Zimnegorskiy. A light is shown from the point. The depths lying up to 1 mile off Mys Kerets are very irregular, and the point should be given a wide berth. Reyd Keretskiy, a roadstead lying about 1 mile W of Mys Kerets, provides good anchorage for large vessels. An obstruction, with a depth of 11m, lies 1.5 miles WSW of the point and 2 miles E of the traffic separation scheme.

Caution.—A wreck, depth unknown, is reported to lie 1.6 miles W of Mys Kerets.

Reka Bol'shiye Kozly (65°15'N., 39°53'E.) enters the sea 6.5 miles SSE of Mys Kerets. The river is accessible to boats at HW. A village stands on the N bank of the river close within its mouth. Good anchorage can be obtained 1.5 miles offshore with the village bearing 090° and the high bluff of Mys Kerets bearing 146°, in a depth of 18m, mud.

A prominent beacon, 24m high, stands near the shore, 3.8 miles SE of Reka Bol'shiye Kozly.

Mys Kuyskiy (65°06'N., 40°03'E.), a wooded point, lies 16 miles SE of Mys Kerets.

Caution.—An submerged obstruction is reported to lie 7 miles SSW of the light.

Another submerged obstruction, an anchor and anchor chain, lies in position 65°00'29"N, 39°54'27"E.

A magnetic anomaly is reported to exist in an area lying 8.5 miles WNW of the point.

2.3 Reka Kuya (65°05'N., 40°06'E.) is entered S of a low, sandy point, 1.5 miles SE of Mys Kuyskiy. The mouth of the river is obstructed by a sand bar. A village, with a large wooden building, stands on the S side of the mouth of the river. Anchorage may be obtained by large vessels, in depths of 13 to 15m, about 2 miles off the mouth of the river.

Ostrov Mud'yugskiy (64°55'N., 40°14'E.) lies with its N end 8 miles SSE of Mys Kuyskiy Light. The interior of the island is low with sloping hummocks and is covered with bushes and pine trees. A conspicuous monument, 24m high and surmounted by a star shape, stands near the S end of the island. Range lights, indicating the approach to Arkhangel'sk, are situated at the SW end of the island.

Ostrov Mud'yugskiy Light (64°55'N., 40°14'E.), equipped with a racon, is shown from a prominent stone tower, 40m high, standing on the middle of the W side of the island.

Guba Sukhoye More (64°55'N., 40°19'E.), lying between the E side of Ostrov Mud'yugskiy and the mainland, dries in its middle part and is otherwise shallow throughout. A number of rivers empty into Guba Sukhoye More.

Arkhangel'sk (64°32'N., 40°32'E.)

World Port Index No. 62800

2.4 The port area of Arkhangel'sk (Archangel) comprises the facilities and navigable waterways of the delta of

Reka Severnaya Dvina, which discharges into the head of Dvinskiy Zaliv. The port is situated on the E bank of the river at the head of the delta, about 28 miles from the sea buoy at Berezovyy Bar. The delta of Reka Severnaya Dvina has two principal arms or branches, with navigable channels leading to Arkhangel'sk. The arms of the delta lie between numerous islands and approach from the N and from the W. The outer islands are low and are almost covered during high tides. There are several large villages on some of these islands.

Arkhangel'sk is the largest Russian port on the northern European continent and is over 400 years old. The total length of the port area is about 30 miles, extending from the N end of Ostrov Mud'yugskiy to some wharves on Reka Severnaya Dvina, 6.5 miles SE of the city. It is primarily a timber and timber products exporting port, although general cargoes are handled as well.

Ice.—The port is normally open from the end of April through October, but can be used by ice-class vessels all year with icebreaker assistance. During the spring when the ice is breaking up, movement in the port is restricted to vessels with icebreaker assistance. Also during this breakup period, the water level will rise as much as 7m higher than normal downriver causing low ground and some islands to be inundated.

Tides—Currents.—Tides rise about 0.7m at springs and 0.4m at neaps. At the sea buoy (Berezovyy Bar) tides rise about 1.1m at springs and about 0.7m at neaps.

Depths—Limitations.—There are numerous shoal areas with uncharted depths of less than 3m in the W approach to Reka Severnaya Dvina, located between Ostrov Zelenets (64°31.3'N., 40°27.4'E) and Ostrov Kego to the N.

Within Reka Severnaya Dvina, E of Ostrov Turdeyev (64°28.2'N., 40°45.7'E), many shoal areas have depths that are significantly less than charted.

Arkhangel'sk has a total of 151 berths, including 31 berths for wood processing, six berths that belong to the river port, three tanker berths for petroleum products operated by JSC Rosneft, two berths for the fishing port, 87 assorted types of berths for small local traffic, and 22 berths dedicated to the Commercial Sea Port. See the table titled **Arkhangel'sk—Berth Information** for the listed berths and their details.

A marine passenger terminal located at Arkhangels'k fronting the city center is capable of handling passenger vessels up to 165m in length with drafts as deep as 7.5m.

The Arkhangel'sk Commercial Sea Port is divided into three separately named areas, as follows:

1. **Ekonomiya** (64°42'N., 40°31'E) is entered from Reka Severnaya Dvina, approximately 4 miles N of Arkhangels'k city center through the dredged Reka Kuznechikha, which separates Ostrov Brevennik on the W side and Ostrov Solombal'skiye and Ostrov Povrakul'skiy on the E side. Ekonomiya is located about 8 miles upriver.

   Seven berths are located in this area, with two of them belonging to the only modern container terminal found in the N part of Russia. Other cargo worked in this area includes wood products, fertilizer, equipment, and bulk cargo. Vessels up to 175m in length with a draft as deep as 9.2m can be accommodated at these berths. Two tanker berths, 150m in length with depths alongside of 10.3m at LW, are capable of handling tankers with the same length and draft limitations as described for the other berths in this region.
2. **Leviy Bereg** (64°31'N., 40°32'E) is actually part of the Bakaritsa port area and is located along the S bank of Reka Severnaya Dvina across the river from the city center. Cargoes handled here include coal and scrap metal. The two berths in this region have a total length of 360m.
3. **Bakaritsa** (64°28'N., 40°37'E) is located about 4 miles SE of Leviy Bereg across the river from Ostrov Okulovskaya Koshka. Cargo handled here include wood products, coal, and scrap metal. Berths in this area can handle vessels between 135m and 165m in length with a draft as deep as 7.5m.

A railroad bridge spans Reka Severnaya 1.5 miles above the river entrance. The central span, which is 70m wide, can be raised to allow the passage of vessels with masthead heights of more than 14m but less than 40m. Vessels with masthead heights of less than 14m may use the other navigable spans of the bridge. Generally, the central span is raised once daily between 0120 and 0320 for the passage of vessels. Permission to pass through the central span must be requested from the port authorities no earlier than 1700 or no later than 2359 the previous day. Cancellation of a request must be made by 0300.

During periods of winds force 6 and greater or air temperatures below -30°C, the central span is not raised. During spring floods, the maximum masthead height above mean sea level may be significantly reduced.

Two road bridges cross the river about 2.5 miles above the railway bridge. The bridge on the E side provides no passage for large vessels. The bridge on the W side has a central span, which is raised once daily between 0100 and 0430. This bridge provides passage for vessels up to 135m in length with masthead heights of more than 14m but less than 40m. Times for requesting permission to pass through the span are the same as for the railway bridge.

Arkhangels'k Deviation Area, used for magnetic compass adjustment, is situated at the mouth of the Reka Severnaya Dvina (64°32'N., 40°30'E). Least depths in this area are 5m.

Aspect.—Range lights, situated on the SW side of Ostrov Mud'yugskiy, indicate the approach to the main channel leading over the bar. A racon is situated at each range light. The front light is shown from a structure, 8m high; the rear light is shown from a framework tower, 26m high.

Mud'yugskiy Lighted Buoy No. 1, the outer approach lighted buoy, is moored about 4 miles NW of Ostrov Mud'yugskiy Light.

A coastal radar station has been established (2010) at Mys Yuzhnyy (64°51'N., 40°17'E)

Pilotage.—Pilotage is compulsory on all waterways of Reka Severnaya Dvina for the following vessels:

1. All foreign vessels.
2. Vessels carrying dangerous cargo.
3. Vessels of 135m loa and over and/or draft of more than 7.5m.

Arkhangel'sk—Berth Information						
Berth	Length	Depth	Maximum Vessel			Remarks
			LOA	Draft	Beam	
Ekonomiya Terminal						
No. 01	150m	9.5m	260m	9.2m	34.6m	Containers, project/heavy cargo, steel products, breakbulk, and reefers. Continuous berthing length of 695m.
No. 02	180m	9.6m	260m	9.2m	34.6m	
No. 03	195m	9.5m	190m	9.2m	30.0m	
No. 04	170m	9.5m	190m	9.2m	30.0m	
No. 05	154m	10.4m	190m	9.2m	30.0m	Containers, project/heavy cargo, steel products, breakbulk, and reefers. Continuous berthing length of 466m.
No. 06	158m	10.4m	190m	9.2m	30.0m	
No. 07	154m	9.5m	190m	9.2m	32.0m	
Levi Bereg						
No. 118	180m	7.5m	164m	7.3m	23.6m	Steel products and breakbulk. Continuous berthing length of 360m.
No. 119	180m	7.8m	132m	7.3m	19.8m	
Bakaritsa Cargo Terminal						
No. 142-143	243m	7.5m	134m	7.5m	19.8m	Scrap metal, steel products, and breakbulk.
No. 144-145	301m	7.5m	141m	7.5m	21.6m	Scrap metal, steel products, and breakbulk.
Northern Shipping Company (NSC) Terminal						
No. 112	80m	5.0m	92m	4.2m	24.0m	Breakbulk.
No. 113	132m	7.0m	85m	5.8m	14.2m	Breakbulk.
Arkhangelsk Passenger Terminal						
No. 149-154 Passenger Berths	511m	3.2m	132m	5.7m	19.8m	Fast ferries and breakbulk.
Lesnoi Prichal Terminal						
No. 170 Timber Berth	113m	8.3m	134m	6.3m	19.8m	Wood chips and breakbulk.
Solombalsky Timber Transshipment Terminal						
No. 46-48 Transshipment Berth	452m	7.9m	153m	8.2m	23.6m	Containers, transhipment, and breakbulk.
Transshipment Complex No. 3						
No. 20	126m	10.5m	134m	8.2m	16.5m	Breakbulk.
Traloviy Flot JSC						
No. 1-3 Traloviy Berth	257m	8.0m	134m	7.8m	21.2m	Fishing vessels, breakbulk, and reefer.
Lesozavod No.3 JSC						
No. 160-161	253m	8.0m	159m	7.8m	26.0m	Scrap metal and breakbulk.
Sawmill No. 25						
No. 21	126m	10.0m	156m	8.2m	19.3m	Breakbulk. Continuous berthing length of 253m.
No. 22	127m	10.0m	156m	8.2m	19.3m	
Tsiiglomen Sawmill No. 25						
No. 93-94	239m	8.2m	107m	5.5m	15.8m	Timber and logs.
No. 95	100m	8.2m	107m	—	17.6m	Timber and logs.
Rosneft Arkhangelsk Terminal						
No. 15	150m	9.6m	175m	9.2m	30.0m	Clean and dirty products.
No. 17	150m	10.4m	175m	9.2m	30.0m	Clean and dirty products.

Arkhangel'sk—Berth Information						
Berth	Length	Depth	Maximum Vessel			Remarks
			LOA	Draft	Beam	
RN-Arkhangelsknefteprodukt						
No. 16 RN Berth	152m	8.1m	176m	7.7m	29.8m	Clean products.

4. All Russian vessels of 500 gt and over.
5. Vessels proceeding under lift spans of bridges.
6. Vessels with a master who is calling at the port for the first time.

Pilots are available 24 hours and board in the vicinity of Mud'yugskiy Lighted Buoy No. 1 (64°56.8'N, 40°05.6'E). During adverse weather (usually when winds are force 6 or higher), vessels should follow the pilot vessel to a location S of the extremity of Ostrov Mud'yugskiy, where the pilot will board.

Regulations.—The Barents Sea and White Sea (Beloye More) Reporting System is in operation for the approach to Arkhangel'sk (Archangel). For specific details on procedures to follow, including a list of Control Points (Reporting-in-Points) in this system, see paragraph 1.1.

All vessel movement within the river and port is prohibited when wind speeds exceed force 8.

Vessels should send a request for pilotage and an ETA to the harbormaster 48 hours, 24 hours, and 4 hours in advance, stating the following:

1. Flag.
2. Port of registry.
3. Owner's name and address.
4. Call sign.
5. IMO Number.
6. Gross tons and nt.
7. Length overall.
8. Beam.
9. Height of hull.
10. Height of mast and spars.
11. Summer saltwater draft and freshwater draft.

Tankers must also include the following:

1. Amounts of isolated, clean, and dirty ballast.
2. Availability of non-contaminated tanks.

Tugs must also include information about the towed object.

When icebreaker assistance is required, vessels should contact the harbormaster 48 hours and 24 hours before entering the White Sea (Beloye More), stating the following:

1. ETA of entering the White Sea (Beloye More).
2. Ice strength class.
3. Type of vessel.
4. Engine power.
5. Propeller material.
6. Availability and daily consumption of fuel, water, and provisions.
7. Technical state of vessel.

Vessels arriving from abroad must advise the harbormaster of their sanitary state 6 hours prior to arrival.

The maximum speed at which vessels can navigate is, as follows:

1. Mud'yugskiy Lighted Buoy No. 1 to Ostrov Lysunov Light—12 knots.
2. Ostrov Lysunov Light to the S end of Ostrov Bjrevennik—7 knots.
3. The S end of Ostrov Bjrevennik to Gorodskiy Reyd—8 knots.
4. The area of Reka Severnaya Dvina above the railway bridge—8 knots.
5. In Nikol'skiy Rukav—7 knots.
6. In Reka Kuznechikha—6 knots.
7. In all roadsteads and quay zones—5 knots.

A one-way traffic system operates across the Berezovyy Bar and in Reka Maymaksa for vessels exceeding 125m in length or with drafts greater than 7.5m.

No passing is permitted for vessels exceeding 125m in length or with drafts greater than 7.5m in the following locations:

1. Reka Maymaksa.
2. Reka Kuznechikha.
3. Niko'skiy Rukay.
4. In all roadsteads where passage is restricted by anchored vessels and at waypoints between range lines.

Vessel Traffic Service.—A Vessel Traffic Service (VTS) system operates in the approaches to the port. For contact information see the table titled **Arkhangel'sk—Contact Information**.

Vessels over 500 gt, vessels carrying dangerous cargo, or tugs towing objects of 75m in length and over must request permission from VTS Control to enter the port when 2 miles from the VTS operational area.

VTS Control will provide navigational and meteorological information on request. All vessels copying a storm warning will need to confirm receipt of same to the VTS.

Radar pilotage is carried out from Krutokolenskiy Lighted Buoy No. 25 (64°46'42"N, 40°24'00"E) to PRR Ekonomiya and then to the parallel of the Bochaga-Krivak Lighted Beacons (64°41'N.).

Contact Information.—See the table titled **Arkhangel'sk—Contact Information.**

Arkhangel'sk—Contact Information	
Port Authority	
Telephone	7-818-265-4626
	7-882-637-229
Facsimile	7-818-265-0343
	7-882-655-309

Arkhangel'sk—Contact Information	
Telex	64-242-111 MRF RU
E-mail	mail@ark.rosmorport.ru
Web site	www.rosmoport.ru
Pilots	
Call sign	Arkhangel'sk Radio 11
VHF	VHF channels 14 and 67
Telephone	7-818-229-7914
Duty Pilots	
Telephone	7-818-263-7306
Facsimile	7-818-263-7306
Vessel Traffic Services	
Call sign	Arkhangel'sk Radio 5
VHF	VHF channels 14 and 16
VTS Post No. 1	
Call sign	Arkhangel'sk Radio 17
VHF	VHF channels 14, 16, and 69
Port Controller (PSSI)	
Call sign	Arkhangel'sk Radio 5
VHF	VHF channels 14 and 16
Central Port Radio	
Call sign	Arkhangel'sk Radio 3
VHF	VHF channels 16, 26, and 27
Rescue Center	
Call sign	Arkhangel'sk Radio 1
VHF	VHF channels 2, 16, and 25
Harbormaster	
Telephone	7-818-265-4422
Deputy Harbormaster	
Telephone	7-818-265-3676
	7-818-265-0858
Sea Commercial Port	
Telephone	7-818-221-0580
Facsimile	7-818-265-7723
E-mail	port@ascp.ru
Web site	http://www.ascp.ru
River Port	
Telephone	7-818-247-1482
	7-818-265-0903
E-mail	rechport@sanet.ru
Note.—All stations operate 24 hours.	

Anchorage.—There are several places as described below that can be safely used by foreign vessels, as follows:

1. At the mouth of Reka Severnaya Dvina, off the town of Arkhangel'sk, in depths of 7 to 18m,
2. In vicinity 64°47.4'N., 39°55.9'E, NW of Golets Light, sand and mud, in depths of 10 to 13m. Note there are two spoil grounds NE of this anchorage, each with radius of 0.5 mile centered on position 64°50.5'N, 40°01.0'E and position 64°49.5'N, 39°58.5'E.

The outer anchorages are, as follows:

1. Berezovvy Bar for small vessels in depths of less than 3m, sand and mud, located west of the fairway close S of a 061° bearing from Ostrov Mud'yugskiy range lights. This anchorage should not be used during periods of W winds.
2. Ostrov Lebedin, in depths of 7 to 11m, sand, located between 0.9 and 1.1 miles WNW of Lebedinskiy Light (64°49.1'N., 40°21.2'E).

Four designated areas are located E of the channel in Chizhovskiy Reyd (64°45'N, 40°30'E).

1. 64°45.44'N, 40°29.57'E, dredged depth of 7.7m, maximun displacement of 3,525 long tons.
2. 64°45.28'N, 40°29.73'E, dredged depth of 7.9m, maximun displacement of 10,000 long tons.
3. 64°45.08'N, 40°29.84'E, dredged depth of 9.6m, maximun displacement of 30,800 long tons.
4. 64°44.79'N, 40°29.07'E, dredged depth of 7.5m, maximun displacement of 30,800 long tons.

The VTS must be contacted to confirm any change in the anchorage position, including any changes necessitated by stormy weather.

Directions.—The channel for deep-draft vessels leads over Berezovyy Bar and through Vkodnoy Korabel'nyy Farvater. It passes through Reka Maymaksa, which rejoins Korabel'nyy Rukav at the S end of Ostrov Brevennik, and then leads S to Arkhangel'sk. The fairway is marked by buoys.

Caution.—The coasts of the mainland, the islands, the banks, and the depths in the channel are subject to great changes which are caused by erosion by ice and by the deposit of silt from the river.

Numerous timber yards are situated along the banks of the narrows and the width of the channel may be reduced, in places, by rafts and logs.

A dangerous wreck, with a depth of less than 20m, lies E of the Bakaritsa commercial seaport area in position 64°27'33"N, 40°47'32"E.

An overhead cable, with a minimum vertical clearance of 45m, spans the Reka Maymaksa 0.6 mile above Birzevoy Light (64°37'48"N, 40°30'36"E). Another overhead cable with a minimum vertical clearance of 43m spans the Nokol'skiy Rukav, close N of the Kegostrovskiye Front Lighted Range (64°31'36"N, 40°23'18"E).

Several submarine cables and pipelines lie within the harbor waters and may best be seen on the chart. The pipelines are not always buried and, in places, may reduce the charted depth by up to 2m.

It has been reported (2010) that numerous changes to lights, buoys, and anchorage areas have been made in the approach to Arkhangel'sk, including the waters of Reka Kuznechikha; that depths may also be less than charted. Vessels are advised to navigate with caution and to contact local authorities for further information.

Dvinskiy Zaliv—West Side

2.5 Severodvinsk (Molotovsk) (64°34'N., 39°47'E.) (World Port Index No. 62810) is a harbor situated close within the entrance of a channel leading between the S end of Ostrov Yagry and the mainland. A major Russian Naval base and industrial center, Port Severodvinsk is not open to foreign shipping.The port supports the construction of and provides berthing for Russia's Northern Fleet nuclear and diesel submarines. It was reported (2012) that the port can accommodate the 44,750 ton Indian Navy aircraft carrier Vikramaditya, formerly the Soviet Admiral Gorshkov, where the warship completed its modernization refit at the SEVMASH Shipyard. A bar lies off the entrance to the channel and has depths of 1.5 to 2.7m. Three range lights indicate the approach from Dvinskiy Zaliv to the entrance channel. Local knowledge is required.

Depths—Limitations.—The area is enclosed by a line from the shore close E of Reka Solza (64°32.6'N, 39°33.6'E), N to 64°40.2'N, 39°34.25'E, close N of the fairway buoy.

Regulations.—Vessel movements are prohibited in winds of more than 17 knots and in restricted visibility. There is a speed limit of 9 knots in the approach channel.

Reka Solza (64°32'N., 39°34'E.) discharges into the head of a bight and lies 5 miles W of Severodvinsk. Boats can only enter this river at high tide. A village, in which stands a conspicuous church, is situated on the W bank of the river, 0.8 mile within the entrance.

Mys Tolstik is a steep, bluff point located 9.5 miles NW of the entrance to Reka Solza. A light is shown from this point.

Reka Syuz'ma (64°42'N., 39°01'E.) flows out from between sloping hills, 7 miles WNW of Mys Tolstik. This river is accessible to boats at HW. A village, situated close within the W entrance point of the river, is visible from seaward. A light is shown from a structure standing 0.8 mile W of the W entrance point of the river.

Krasnaya Gora (64°46'N., 38°36'E.), a village, stands 11 miles WNW of the mouth of Reka Syuz'ma. A light is shown from a structure standing 0.5 mile E of the village. Mys Krasnogorskiy Rog is located 5 miles WNW of Krasnaya Gora.

Unskaya Guba (64°45'N., 38°10'E.), a large shallow basin, is entered between Mys Krasnogorskiy Rog and Mys Yaren'gskiy Rog, 2.5 miles NW. The E shore of the entrance to this inlet is high and the W shore is low. A light is shown from a structure standing 1 mile SW of Mys Yaren'gskiy Rog. Unskaya Guba provides the most sheltered anchorage on Letniy Bereg and can be entered at half tide by vessels with drafts of up to 3.5m. Vessels should not proceed into this inlet without local knowledge.

2.6 Yaren'ga (64°53'N., 37°56'E.), a village, is situated 11 miles WNW of Mys Yaren'gskiy Rog. It stands at the mouth of a river of the same name, where a sandy beach is prominent. Two churches stand close W of the village. Vessels can anchor off the village by proceeding on the range formed by the two churches in line, bearing 200°, or with the N church bearing 252°.

Lopshen'ga (64°58'N., 37°41'E.), a village, stands 8.5 miles NW of Yaren'ga and a prominent white church is situated in it. This village stands 1 mile NW of the mouth of the river of the same name. A rocky shoal, with a least depth of 4.9m, lies 1.2 miles ENE of the church. A light is shown from a structure standing 3.5 miles NNW of the village.

Mys Gorbolukskiy (65°10'N., 37°01'E.), the SW entrance point of Dvinskiy Zaliv, is a blunt headland, with sloping rocky sides, which is easily identified from seaward. Letniy Navolok Light is shown from a structure standing on a point 1.8 miles ESE of this headland. Shoals, with depths of 9.6 and 12m, lie 4 miles N and 4 miles E, respectively, of this light.

Caution.—When proceeding NW along the SW side of Dvinskiy Zaliv, vessels should guard against the tidal currents which usually set strongly toward the coast.

A dangerous wreck lies in the turning basin at Ekonomiya.

Firing Area No. 52, located NE of Lopshen'ga, is bounded by lines joining the following positions:

a. 65°08'00"N, 38°11'00"E.
b. 65°08'00"N, 38°04'00"E.
c. 65°16'00"N, 37°37'36"E.

A submarine cable has been laid from vicinity Mys Gorbolukskiy extending NW across the White Sea (Beloye More) to Kandalakshskiy Zaliv passing close W of Mys Turiy through the following positions:

a. 65°09'54"N, 37°03'24"E. (coastline)
b. 65°17'36"N, 37°0354"E.
c. 65°17'54"N, 36°25'54"E.
d. 65°38'36"N, 35°34'48"E.
e. 65°48'48"N, 35°23'24"E.
f. 66°10'00"N, 34°25'36"E.
g. 66°23'06"N, 34°22'36"E.
h. 66°26'54"N, 33°58'12"E.
i. 66°31'18"N, 33°59'30"E.
j. 66°39'24"N, 34°19'54"E. (coastline)

Onezhskiy Zaliv

2.7 Onezhskiy Zaliv (64°25'N., 36°25'E.), the southernmost indentation of the White Sea, lies about 100 miles SE of the entrance and has an average width of about 30 miles. A number of islands lie in the entrance to this gulf, Ostrov Solovetskiy being the largest. Numerous islets, rocks, and shoals also lie on each side of the gulf.

Oneshzkiy Zaliv—East Side

2.8 Ostrov Zhizhginskiy (65°12'N., 36°49'E.), located 5 miles WNW of Mys Gorbolukskiy, has a steep and rocky coast. A light, equipped with a radiobeacon, is shown from a structure standing near the middle of the island. Several buildings stand on the island. Range lights, bearing 133°, are shown from structures standing on the NW side of the island. This lighted range indicates the approach to an anchorage which lies about 0.4 mile NW of the front range structure.

Ostrov Churnavolok, an islet, lies at the extremity of a drying reef which extends 1.5 miles NNE from Ostrov Zhizh-

ginskiy. A light is shown from this islet and a lighted buoy is moored about 2 miles N of it.

Proliv Zhizhginskaya Salma (65°10'N., 36°50'E.), lying between Ostrov Zhizhginskiy and the mainland to the SE, is much encumbered by banks and shoals. A narrow and winding channel may be used at all stages of the tide by vessels with local knowledge and drafts not exceeding 5m. The fairway in this channel is marked by navigational aids.

2.9 Proliv Vostochnaya Solovetskaya Salma (65°05'N., 36°30'E.) is a strait, the E side of which is formed by the E shore of Onezhskiy Zaliv between Mys Ukhtnavolok and Mys Letniy Orlov. The W side of the strait is formed by the E ends of Ostrov Anzerskiy, Ostrov Bol'shaya Muksalma, and Ostrov Malyy Muksalma.

Caution.—It has been reported (2008) that depths in Proliv Vostochnya Solovetskaya Salma may be less than charted.

Guba Letnyaya Zolotitsa (64°58'N., 36°47'E.) is an indentation lying 11 miles S of Mys Ukhtnavolok. A river, with a village standing near its mouth on the N bank, discharges into the head of this bay, which is fringed by a conspicuous sandy beach. Vessels can anchor, in depths of 13 to 16.5m, about 0.7 mile NW of the mouth of the river.

Guba Konyukhova (64°55'N., 36°36'E.), a bay, is entered between Mys Tolstyye Korgi and a point, 3.5 miles W, and has pine trees extending to the water's edge. Good anchorage can be obtained in the bay during gales from E through S to SW. The bay also provides a favorable anchorage in early spring when ice is being carried out of Onezhskiy Zaliv.

Mys Letniy Orlov (64°55'N., 36°27'E.) lies 17 miles SW of Mys Ukhtnavolok and is prominent from the N and S. A light is shown from this point and a lighted buoy is moored about 0.8 mile W of it.

A pilot station for vessels bound for Onega is situated on the point. For pilotage information, see para 2.15.

Ostrov Anzerskiy (65°09'N., 36°06'E.) is the easternmost of a group of islands which lies in the entrance to Onezhskiy Zaliv. This island lies with its E extremity located 14 miles W of Mys Ukhtnavolok. A conspicuous church stands 6 miles W of Mys Kolguyev. A number of reefs and shoals, some marked by buoys, lie off the shores of the island and can best be seen on the chart.

Caution.—Firing Area No. 51, located NE of Ostrov Anzerskiy, is bounded by lines joining the following positions:

a. 65°11.6'N, 36°29.0'E.
b. 65°16.0'N, 36°24.0'E.
c. 65°16.0'N, 36°38.6'E.

2.10 Proliv Anzerskaya Salma (65°07'N., 35°57'E.) lies between Ostrov Anzerskiy and Ostrov Solovetskiy. The fairway channel has a least charted depth of 5.8m in the narrow passage leading between Vtoroy Troitskiy Stamik and the foul ground extending from the NE end of Ostrov Solovetskiy. Drying rocks lie 2.5 miles NNE and 1.2 miles ENE of Mys Rebalda.

A shoal, with a depth of 4.4m, lies 3.5 miles WSW of Mys Kapel'skiy and close W of the center of the fairway. Another shoal, with a depth of 5.2m, lies 1.8 miles W of the same point.

During E winds, vessels can anchor in the N part of the strait, in depths of 29 to 36m, about 0.5 mile off the W coast of Ostrov Anzerskiy. However, vessels should not anchor in depths of less than 18m as inside this depth there may be submerged rocks. With NE winds, the best anchorage is off Mys Plotische, the SW extremity of Ostrov Anzerskiy, in depths of 13 to 29m, sand and mud.

Ostrov Solovetskiy (65°05'N., 35°40'E.) is 13 miles long and nearly 9 miles wide. It is the largest island lying in the entrance to Onezhskiy Zaliv. The shores of the island are mostly low, wooded, and fringed by rocks which dry and extend up to 0.2 mile seaward in places.

Solovetskiy Light is shown from the cupola of a church which stands on a hill in the NW part of the island. A number of small islands and islets lie off the SW side of this island and can best be seen on the chart.

Ostrov Bol'shaya Muksalma (65°02'N., 35°58'E.) lies close E of the E side of Ostrov Solovetskiy, to which it is joined by a stone bridge. A light is shown from the SE side of this island and an islet lies close off the S end. Small vessels, with drafts of less than 3m, can anchor in a roadstead lying off the SW side of the island.

Proliv Zapadnaya Solovetskaya Salma (65°05'N., 35°12'E.) separates Ostrov Solovetskiy from the S end of Karel'skiy Bereg and is entered between Mys Perech-Navolok and Ostrov Kamostrov, 21 miles W. This strait has general depths of 13 to 39m. The least depth in the strait, which is formed by a 9m shoal patch, lies about 3.2 miles W of Ostrova Topy Light.

Anchorage can be obtained inside the shoals lying off the W coast of Ostrov Solovetskiy, in depths of 13 to 18m, good holding ground.

2.11 Pushlakhotskaya Mel' (64°52'N., 36°20'E.), a shoal with depths of less than 10m, extends 5 miles from the coast between Mys Letniy Orlov and Mys Tonkiy. Buoys mark the S and N extremities of this shoal and lighted buoys mark the E and W extremities.

Guba Pushlakhta (64°49'N., 36°30'E.), which extends 2.5 miles SE, indents the coast midway between Mys Letniy Orlov and Mys Chesmenskiy. A village stands near the head of this cove. Lighted beacons indicate the channel leading into the cove, which is used by small vessels. Guba Pushlakhta and Mys Tonkiy can be identified by a conspicuous depression in the coastal hills in this vicinity.

Mys Chesmenskiy (64°43'N., 36°33'E.) lies 6.5 miles S of Mys Tonkiy and is covered with trees. A light is shown from a tower on a house, 19m high, standing close within the point. A radiobeacon is situated close W of the light. Mys Kamennyy lies 8 miles SE of Mys Chesmenskiy.

Stamik Bakan, a small shoal patch, lies 8.5 miles SW of Mys Kamennyy. It has a least depth of 2.9m and is marked on its E side by a lighted buoy. Stamik Gryaznogubskiy, with a least depth of 6.2m, lies 5 miles WNW of Stamik Bakan. The sea breaks over these shoals when there is a swell.

2.12 Lyamtsa (64°27'N., 37°04'E.), a village, stands on the N side of the mouth of a river of the same name and is marked by a light. The river can only be entered by small craft. An anchorage roadstead, with depths of 6 to 8m, lies 1.5 miles SW of the light and is marked by a buoy.

Lyamitskiye Stamiki, lying 8 miles SW of Lyamtsa, consists of two steep-to rocks located about 1 mile apart. The sea breaks over these rocks when there is a swell. The NW rock has a least depth of 1.4m and the SW rock has a least depth of 1.8m. A lighted buoy is moored about 1.5 miles E of the NW rock.

Peschano-Navolokskaya Mel' (64°19'N., 37°13'E.), a large and sandy shoal, has a least depth of 1.6m and lies 2.5 miles WSW of Mys Glubokiy. A buoy is moored close off the S side of this shoal.

Ostrov Pulonets (64°13'N., 37°04'E.), 3m high, lies 10 miles SW of Mys Glubokiy. This rock, from which a light is shown, is steep-to except for a shoal patch, with a depth of 8m, lying close N of it.

Ostrov Purluda (64°14'N., 37°21'E.), lying 5 miles S of Mys Glubokiy, consists of two bare and steep islets. These islets are 24m high and connected by a rocky drying ridge. A light is shown from the N islet.

Ostrov Osinka (64°31'N., 35°14'E.), a group of islets, lies from 5.5 to 8 miles SSE of Ostrov Pulonets. Ostrov Lesnaya Osinka is the northernmost islet of this group. Banka Neva and Banka Osinkovskiy Stamik lie 2.5 and 4 miles, respectively, NE of Ostrov Osinka. The former bank is marked on its W side by a spar buoy (W cardinal) and the latter is marked on its N side by a spar buoy (N cardinal).

2.13 Purnema (64°23'N., 37°26'E.), a village, is situated 3 miles NE of Mys Glubokiy and has a prominent white church. A river enters the sea 0.5 mile E of this church. A buoy is moored about 2.5 miles S of the church. Anchorage can be obtained off the village, in depths of 6 to 12m, in the vicinity of the above buoy. This anchorage affords shelter during NW gales.

Mys Veynavolok is located 6.5 miles E of Mys Glubokiy.

Guba Ukhta (64°23'N., 37°43'E.) is entered between Mys Veynavolok and a point, 4.5 miles E. It has low, sandy shores which are covered with grass and partly wooded. The entrance to this bay has a depth of 3.4m, but the depths decrease rapidly toward the head. The bay freezes over at the end of November and starts to clear of ice at the beginning of May.

Guba Kyandskaya (64°17'N., 37°57'E.) lies 8 miles SE of Guba Ukhta. A river flows into the head of this inlet and a village stands 3 miles above its mouth. Small craft can enter the river at HW.

Reka Tamitsa, a river accessible only to small craft, lies with its mouth located 8.5 miles S of Guba Kyandskaya. A village stands 1 mile within the entrance of this river.

2.14 Reka Onega (63°55'N., 38°01'E.), flowing between low marshy banks, enters Onezhskiy Zaliv between Mys Pikhnemskiy and Mys Pil'skiy, 1.2 miles SSW. Vessels can proceed to the entrance of this river through Karel'skiy Farvater. Several ranges indicate the fairways in the strait and the river. Reka Onega and its entrance freeze over about the beginning of November and clear again during the end of April and the first part of May. Vessels cannot winter in the river as there is no protection against drifting ice.

Ostrova Shogly (64°02'N., 37°47'E.), a group consisting of three small islets, lies 8.2 miles NW of the entrance to Reka Onega. A light is shown from the northernmost islet of the group. A dangerous wreck lies about 1 mile SSW of the light. Banka Shoglyanka, a rock, lies about 4 miles NW of the light. It has a least depth of 0.8m and is marked by a buoy. A number of islets and shoals lie close SE of Ostrova Shogly and can best be seen on the appropriate chart.

Dvinskiy Reyd (64°03'N., 37°53'E.), the roadstead area located off the entrance to Reka Onega, lies E of Ostrova Shogly and has general depths of 5 to 7m, mud covered by sand and in some places covered by stone. Anchorage can be taken 2 miles E of Ostrova Shogly Light, in a depth of 5m, or closer to the islets, in a depth of 4m.

Karel'skiy Reyd (63°59'N., 37°38'E.) lies 5 miles SW of Ostrova Shogly. Anchorage can be obtained in a depth of 7m about 4 miles SW of Ostrova Shogly Light. The coastal bank lying E of this anchorage is marked by two buoys.

Karel'skiy Farvater (63°57'N., 37°42'E.) leads E from Kare'skiy Reyd and over the bar of Reka Onega. The fairway of this strait, which is 60m wide, is marked by lighted ranges, lighted buoys, and spar buoys. The maximum drafts of vessels navigating this fairway is 5.1 to 6.4m, the precise figure being promulgated at the start of the navigation season. Vessels are advised to contact the harbormaster to inquire about least depths in the fairway before entering the river.

Caution.—It has been reported (2007) that significant changes to aids to navigation, including changes to the range lines, have been made in Reka Onega and the approaches to Onega. Vessels are advised to navigate with caution and contact local authorities for further information.

2.15 Onega (63°54'N., 38°06'E.) is situated on the right bank of the Onega River proceeding inbound. It is the only port open to foreign shipping in Onezhskiy Zaliv, with the exception of September 1 through December 31, when it is closed annually. The town of Onega stands on a bluff projection on the N bank of the river and is a center for timber handling and sawmilling. General cargo can also be handled.

Ice.—The harbor, lying 4 miles from the mouth of the river, is usually open to navigation from the middle of May into November. During the autumn months, the river becomes covered with ice, making icebreaker assistance required in most cases, though it may not be readily available. Icebreaker escort of vessels within the port area is required whenever the ice thickness is 10cm or more within the harbor waters.

Tides—Currents.—The tides at the port rise about 1.1m at springs and 0.7m at neaps. For reference, the tides at Ostrov Kiy (64°00'N., 37°54'E.) in the White Sea (Beloye More) rise 2.7m at springs and 1.9m at neaps.

The water level in the river and alongside the port can increase by as much as 3m during periods of strong W winds veering to the NNE. During the springtime thaw, water levels

can be increased by as much as 6m from ice jams along the shore and upriver from Onega.

Depths—Limitations.—Opening and closing of the port is regulated by the port authorities and is open to foreign shipping from January through August only. Access into the river is via Karel'skiy Farvater and is restricted to vessels with drafts no greater than 6.1m.

Eksportnaya Pristan, the main berthing facility, is located about 0.6 mile SSE of Mys Pikhnemskiy. The berth, which handles timber, is 344m long and has an alongside depth of 5.6m.

Offshore loading of logs from floating rafts is possible at two mooring positions placed 270m apart in the roadstead about 300m upriver from the quay. Vessels up to 114m in length and with a maximum draft of 4m can be accommodated at these positions.

A roadstead oil and petroleum products trans-shipment area (RPK Osinki) is located approximately 17 miles NW of Reka Onega close E of Ostrova Osinki. Ostrova Osinki is a group of four rocky islands surrounded by a shelf on which there are numerous drying rocks. RPK Osinka is bounded by lines joining the following positions:

a. 64°10'00"N, 37°11'42"E.
b. 64°10'00"N, 37°20'00"E.
c. 64°05'18"N, 37°33'12"E.
d. 64°05'18"N, 37°21'24"E.

There are three designated areas for different types of tankers with respect to the operation being performed as well as two designated anchorages for storage tankers; one in the N part of the area and one in the S part.

Pilotage.—Pilotage is compulsory and is available 24 hours only during the navigation season (May until early November).

Vessels should send an ETA off Mys Letniy-Orlovskiy Lighted Buoy (64°55'12"N., 36°24'36"E.) and a request for pilots 48 hours and 24 hours in advance, with a final confirmation sent 6 hours before arrival.

Pilots board, as follows:

1. Calm weather—In the vicinity of Letniy-Orlovskiy Lighted Buoy.
2. Adverse windy weather—NW or SW of Mys Letniy Orlov.
3. Solovki Terminal—64°54'48"N, 35°43'30"E.

Regulations.—The Barents Sea and White Sea (Beloye More) Reporting System is in operation for the approach to Onega. For specific details on procedures to follow including a list of Control Points (Reporting-in-Points) in this system, see para 1.1.

Vessels with drafts up to 3m may enter or depart the port at any time while deeper draft vessels are required to enter only at the time of HW at Ostrov Kiy; departures have to be within 1 hour of HW. The exact allowable draft for entry is broadcast at the beginning of each navigation season as well as whenever a significant change is noted throughout the season.

All vessels must maintain watch on VHF channel 16 during entry and departure and while navigating within the port area.

The speed of vessels having the maximum permissible draft shall not exceed 8 knots, unless the vessels have a draft less than 3.05m, are emergency vessels responding to an emergency, or are high speed vessels capable of maintaining a speed of 20 knots or more.

The movement of vessels within the port area is prohibited whenever visibility is less than 0.5 mile or the wind strength exceeds Beaufort Force 6.

Tugs are available at the port and must be requested from the Port Controller at least 4 hours before needed. Communications between vessels and tugs is carried out on VHF channel 6.

Vessel Traffic Service.—A traffic control system is in place for the port of Onega. The operational zone of this traffic control area comprises the waters of the seaport. The harbormaster controls all vessel movement within this area.

Vessels must request permission from the harbormaster to enter the port 2 miles before reaching the seaport limits.

Contact Information.—See the table titled **Onega—Contact Information**.

Onega—Contact Information	
Pilots	
VHF	VHF channel 16
RT Frequency	2182 kHz
Port Authority	
Telephone	7-818-392-2491
	7-818-392-2151
Port Controller	
Call sign	Onega Radio 2
VHF	VHF channels 14 and 16
Harbormaster	
Call sign	Onega Radio 5
VHF	VHF channels 9 and 16
Telephone	7-818-392-2133
Solovki Terminal	
Call sign	Solovki Radio 1
VHF	VHF channels 5 and 16
Note.—All stations operate 24 hours but only from May to December.	

Anchorage.—The recommended anchorages for vessels proceeding to Onega along Karel'skiy Farvater are situated, as follows:

1. On the range line leading into Onega from the No. 13 Lighted Buoy and a line abeam the front mark of the Pikhnemsky No. 2 Range Line, in depths of 3.7m to 4m, mud and small stone.
2. An area of approximately 700m, in the Onega River, lying a short distance N from the range line leading into Onega, opposite the export quay, in depths of 4m, mud and small stone.
3. An area S of the Pristansky Quays Range Line, but not passing over the line, to the E, from the Pristansky

Sekushchy Quays Crossing Range Line, in depths of 3m to 3.7m, mud, small stone, and stone.

Two anchorage areas lie outside the river, as follows:

1. Dvinskiy Reyd, the most sheltered anchorage, is situated about 2 miles E of Ostrova Shogly Light, in depths of 5m to 7m, mud and sand, with isolated rocks. Care must be taken during periods of strong NW winds as this will cause a significant swell in this area.
2. Karel'skiy Reyd, situated about 4 miles SW of Ostrova Shogly Light, offers good holding ground, in about 7m, mud and sand. Strong N and NW winds will raise a significant sea and swell in this area.

Onezhskiy Zaliv—West Side

2.16 Guba Nimen'ga (63°51'N., 37°27'E.), a large bay, lies 9 miles SW of Karel'skiy Farvater outer sea buoy. This bay is shallow, with extensive drying flats, and landing is danger-ous. Anchorage, during offshore winds, can be obtained, in a depth of 5.8m in Kusheretskiy Reyd with Ostrov Paskanets bearing 301°, distant 2.2 miles.

Between Mys Vazhen Navolok, the W entrance point of Guba Nimen'ga, and Mys Vardiya, 26 miles WNW, the coast is indented by a number of bays, all of which are mostly filled with drying flats. A number of islands, islets, rocks, and shoal patches lie offshore between these two points and can best seen on the chart.

Guba Vekhruyka (64°05'N., 36°13'E.) is a bay which dries. It is entered between **Mys Ponomarev Nos** (64°07'N., 36°15'E.) and Mys Vardiya, a steep point 4.2 miles S.

Guba Kolezhemskaya lies 10 miles NW of Guba Vekhruyka and is entered between Mys Chiznavolok and Mys Krasnoshchel'ye, 4.5 miles NW. The village of Kolezhma stands at the mouth of a river which flows into the W side of this bay.

2.17 Ostrov Myagostrov (64°21'N., 35°58'E.), the largest island along this part of the coast, lies 3.5 miles N of Mys Krasnoshchel'ye. The passage leading between this island and the coast is obstructed by several islets and rocks, and dries at the S end.

Ostrov Tit Luda (64°25'N., 36°06'E.), from which a light is shown, is a low steep-to islet lying 4.5 miles ENE of Mys Beluzhiy, the N extremity of Ostrov Myagostrov.

Sumskaya Guba (64°21'N., 35°27'E.) is entered between Ostrov Sedostrov and the NE end of Ostrov Sumostrov, 5.5 miles W. Ostrov Sedostrov lies 1 mile NW of Mys Medvezhiy, the NW termination of a hill spur. Drying shoals lie between the island and the spur. Ostrov Razostrov lies in the entrance to Sumskaya Guba and is wooded. Vessels with drafts not exceeding 5m can anchor in the outer roadstead, 0.4 mile W of the SW end of Ostrov Razostrov. However, this anchorage is exposed to winds from between NW and NE.

Guba Virma (64°22'N., 35°12'E.), lying close W of Sumskaya Guba, is entered between Ostrova Parusnitsa and the NW end of Ostrov Sumostrov, 4 miles SSE. This bay mostly dries and is encumbered with numerous islets and rocks. The village of Virma stands at the mouth of a river which flows into the head of the bay. Range beacons, indicating the entrance to the bay, stand on two islets which lie 1.5 miles W of Ostrov Sumostrov.

2.18 Guba Kuz (64°26'N., 35°03'E.) lies NW of Guba Virma and is entered between **Ostrov Tumishche** (64°29'N., 35°00'E.) and a low islet, 4.5 miles SSE. This bay dries and is encumbered with numerous islets and rocks. A river, which flows into the SW corner of the bay, can only be used by boats. The village of Sukhoye stands on the N side of the river entrance.

Sorokskaya Guba (64°32'N., 34°54'E.) is entered between Mys Vygnavolok and Ostrov Molchanov, 6.5 miles S. The latter island lies close off the NE side of Ostrov Tumishche which is joined to the mainland. The port of Belomorsk lies at the head of this inlet and is backed by the town which stands near the mouth of Reka Vyg. A number of islets and rocks, some marked by beacons and buoys, lie in the approach to Sorokskaya Guba and can best be seen on the chart.

Belomorsk (64°32'N., 34°46'E.)

2.19 The port of Belomorsk is sheltered by two moles, which extend from the coast, and the harbor entrance is protected by two short, detached breakwaters.

The port is closed to foreign shipping. The entrance to the Belomorsk-Baltiyskiy Kanal, which connects the White Sea with Onezhskoye Ozero and the Baltic Sea, lies in the port. This canal, which is 125 miles long, has 19 locks and can be used by vessels with drafts of up to 4m.

Ice.—The head of Guba Sorokskaya and Reka Vyg freeze over at the beginning of November and thaw at the beginning or middle of May. In general, navigation in winter, even with the aid of powerful ice breakers, is very difficult.

Depths—Limitations.—The maximum permitted drafts are 3.6m for dry cargo vessels and 3.55m for oil tankers.

A mooring buoy lies NNW of Ostrov Osinka in position 64°33.0'N, 35°08.6'E.

Aspect.—Range lights, aligned 260°30', indicate the channel leading from the No. 1 Lighted Buoy to the outer anchorage, which lies 7.5 miles WNW of Ostrov Osinka.

A prominent television tower stands in position 64°32.4'N, 34°47.7'E. A radio mast is situated about 0.8 mile W of this tower. Chimneys stand about 1.2 miles SSW and 1.5 miles SSW of the tower.

Pilotage.—Vessels proceeding to Belomorsk, by way of the easternmost channel in Onezhskiy Zaliv, should embark a pilot near the lighted buoy moored W of Mys Letniy Orlov. Vessels proceeding into the bay, by way of the westernmost channel, should proceed toward Ostrova Rombaki, where pilots are available.

The station at Belomorsk provides pilots for vessels proceeding to Kem, Onega, and Mys Letniy Orlov.

Regulations.—The movement of all vessels in the approach channel is prohibited when winds exceed Beaufort Force 6. Movement is prohibited in the approach channel when winds exceed force 5 for vessels engaged in towing operations

All vessels must maintain a listening watch on VHF channel 16 during entry and departure and while navigating within the port area.

Vessel Traffic Service.—A traffic control system is in place for the port of Belomorsk. The operational zone of this traffic control area comprises the waters of the seaport. The harbormaster controls all vessel movement within this area.

Vessels must request permission from the harbormaster to enter the port 2 miles before reaching the seaport limits.

Communication between the vessel and harbormaster is carried out on VHF channel 16 or via radio (call sign: Belomorsk Radio 2 or Solovki Radio 1).

Contact Information.—For further information, see the table titled **Belomorsk—Contact Information**.

Anchorage.—Vessels can anchor in the roadstead outside the harbor, in depths of 6 to 11m. However, this anchorage is exposed to NE winds, which cause a heavy sea.

Belomorsk—Contact Information	
Port Radio	
Call sign	Belomorsk Radio 2
VHF	VHF channels 10 and 16
Hours	24 hours
Port Operators	
Telephone	7-812-272-3149
Facsimile	7-812-719-8884
E-mail	belport@bk.ru
Web site	http://www.belmorport.com
	http://www.belmorport.ru
Hours	24 hours

2.20 Ostrov Malyy Zhuzhmuy (64°37'N., 35°40'E.) lies 17 miles E of the N entrance point of Sorokskaya Guba. A light is shown from the SE extremity of the island. Some log huts stand on the N extremity of this island. A beacon stands on an islet which lies at the edge of a drying bank fronting the W side of the island.

Ostrov Bol'shoy Zhuzhmuy (64°41'N., 35°34'E.) lies 2 miles NW of Ostrov Malyy Zhuzhmuy.

Ostrov Malyy Zhuzhmuy and Ostrov Bol'shoy Zhuzhmuy are almost connected by drying banks on which several islets are located.

Anchorage may be taken, during NE and E winds, off the SW side of Ostrov Bol'shoy Zhuzhmuy, in a depth of 20m. The best berth lies S of the W extremity of the island and W of the S extremity. A shoal patch, with a depth of 7.6m, lies about 0.2 mile WSW of this anchorage. Anchorage may also be taken, during winds from S to W, about 0.3 mile off the NE side of the island, in depths of 9 to 13m.

Ostrov Bol'shaya Sennukha (64°50'N., 35°37'E.) lies 9 miles NNE of Ostrov Bol'shoy Zhuzhmuy. This island is rocky and covered with tundra. The sides of the island are steep and bare up to the level of the tundra. A light is shown from the island.

Ostrov Malaya Sennukha, a bare rock, lies about 0.8 mile SE of Ostrov Bol'shaya Sennukha. Banka Vaterloo, lying 2 miles S of Ostrov Bol'shaya Sennukha, has a least depth of 3m and is marked on its S side by a spar buoy.

Ostrov Rovnyazhiy (64°48'N., 35°15'E.), a peat-covered island with a similar islet lying close N, is located 9 miles W of Ostrov Bol'shaya Sennukha. A light is shown from a structure standing on this island. Banka Rovnyazh'ya, with a depth of 3.6m, lies 3.5 miles SE of the light and is marked by spar buoys on its W and E sides.

2.21 Ostrov Bol'shaya Nokhkaluda (64°49'N., 35°07'E.) lies 3 miles WNW of Ostrov Rovnyazhiy and is steep-sided with two summits. A beacon is situated on the W summit of the island. An above-water rock lies 1 mile SE of the island and a 2.6m shoal patch lies about 0.8 mile E of it.

Ostrov Beloguzikha lies 2.5 miles NNW of Ostrov Bol'shaya Nokhkaluda. This island is steep-sided and has a flat summit which is covered with trees and bushes.

Guba Shuyeretskaya (64°46'N., 34°54'E.), entered close S of Mys Poltamkorga, is an inlet indenting the N side of Ostrov Shuyostrov. Reka Shuya, which flows into the head of this inlet, can only be entered by small craft. A village stands 4 miles above the mouth of the river.

Anchorage can be obtained in the inlet, in depths of 6 to 10m, good holding ground, but this roadstead can only be reached by passing through a narrow and unmarked channel. A number of islets, rocks, and shoals, which can best be seen on the chart, lie between Mys Poltamkorga and Guba Kemskaya, 8.5 miles NNW.

2.22 Guba Kemskaya (64°57'N., 34°45'E.) is entered N of Mys Pukhnavolok. A narrow and winding channel, with depths of 2 to 5m, leads between extensive drying banks to the mouth of Reka Kem', which lies at the head of this bay.

The bay is accessible at HW to vessels with drafts not exceeding 2.7m. Local knowledge is required. The town of Kem' stands at the head of the bay, on the N side. A pier, which projects from the S shore of the bay, has a depth of 2m alongside at HW.

Proliv Kemskaya Salma (65°00'N., 34°47'E.) separates Ostrov Yakostrov from the S part of Ostrov Rabocheostrovsk. This channel is relatively deep and may be transited by vessels with drafts not exceeding 5m. A beacon stands at the SW end of Ostrov Yakostrov.

2.23 Port Kem' (64°59'N., 34°47'E.) lies on the W side of Proliv Kemskaya Salma. Lumber is the chief export of this port which is administered by the Onega port authority. It is reported (1996) that this port is closed to foreign vessels from 1 September to 31 December annually.

Winds—Weather.—The winds are generally NE from March to June, and S, W, and NW from August to February.

Ice.—The entrance channel ices in the middle of November and opens at the end of April.

Tides—Currents.—The flood tidal current at HW enters the strait from N and NE, attaining a velocity of 2 knots. The ebb current attains a slightly greater velocity.

Depths—Limitations.—Wharves extending N and S of the sawmill provide 1,200m of total berthage. Vessels of up to 6.4m draft can be accommodated at the lumber mill pier. Towed ships and lighters are berthed between the piers.

Pilotage.—Pilotage is compulsory. The pilot station for Port Kem' is situated on Ostrov Racheostrovsk. Foreign vessels bound for this port should embark pilots at Mys Letniy Orlov. Vessels approaching from the N, through Proliv Zapadnaya Solovetskaya Salma, can embark pilots by prior request off Ostrov Yuzhnyy Rombak (65°02'N., 35°02'E.).

Anchorage.—Anchorage can be obtained in the S part of Proliv Kemskaya Salma, in depths of 5 to 11m, mud. This anchorage is sheltered from all winds, except those from NE and S, and is not subject to heavy seas.

Caution.—A rocky shoal, with a least depth of 2.6m, lies close E of the northernmost wharf in the port and is marked by four buoys.

2.24 Ostrov Oleshin (64°58'N., 35°13'E.), the island lying nearest to Proliv Zapadnaya Solovetskaya Salma, is rocky, steep, and covered with peat. Ostrov Luda Saltykovka, lying 1.8 miles WNW of the island, is a low, granite rock which can be passed on all sides.

Ostrov Nemetskiy Kuzov (64°57'N., 35°10'E.), 136m high, is very steep at its E and S sides. This island is bare except for some trees standing on its S side. Small vessels can anchor, in depths of 6 to 7m, sand and stones, in the middle of the outer part of a cove indenting the S side of the island.

Ostrov Russkiy Kuzov (64°56'N., 35°08'E.) lies close SW of Ostrov Nemetskiy Kuzov. The sides of this island are wooded, but its summit is bare. Ostrov Tupichikha, an island lying close S of Ostrov Russkiy Kuzov, is covered with peat and is steep-to on its N side. A beacon surmounts the summit of this island.

Ostrov Yuzhnyy Rombak (65°02'N., 35°02'E.), lying 6 miles NW of Ostrov Oleshin, is steep and high. A light is shown from the S part of this islet. Stamik Bol'shoy Rombakskiy, a shoal, has a least depth of 1.5m and lies 1.2 miles ESE of the light.

Ostrov Malyy Rombak, from which a light is shown, lies 0.3 mile S of Ostrov Yuzhnyy Rombak and is bare and rocky.

Ostrova Topy (64°59'N., 35°27'E.) lies on the E side of Proliv Zapadnaya Solovetskaya Salma, 6 miles ENE of Ostrov Oleshin, and consists of two islets covered with peat. A light is shown from the N islet. Shoal patches, some of which are marked by buoys, extend up to 12 miles NNW from these islets.

Ostrova Studentsy (65°05'N., 34°49'E.) consists of an island, the S part of which is wooded, and several islets. The channel lying between Ostrova Studentsy and the mainland is foul. Ostrov Zelenaya Luda, a barren islet, is located 4 miles N of Ostrova Studentsy and a shoal, with a depth of 2.4m, lies 1 mile ESE of it.

2.25 Letnyaya Reka (65°09'N., 34°38'E.), a village, is situated on the S side of the mouth of a river, at the head of a bay, which is entered N of Ostrov Kamostrov. The bay is encumbered with rocks and shoals which are separated by narrow channels. Range beacons indicate the fairway leading to an outer anchorage off the village. Vessels with drafts of less than 5m can obtain anchorage off the bay, in depths of 7 to 9m, over a bottom of mud, sand, and stones.

Stamik Rivenskiy (65°16'N., 34°47'E.), 7.5 miles N of Ostrov Zelenaya Luda, is a drying rock which is marked on its E side by a spar buoy. Stamik Aleksandrovskiy, which also dries, lies about 2 miles W of Stamik Rivenskiy. Ostrov Serebryanka, marked by a beacon, lies 2.8 miles S of Stamik Aleksandrovskiy.

Ostrov Khenekorgskiy Stamik (65°24'N., 35°01'E.), a group of rocks rising just above water, lies 9.5 miles NE of Stamik Rivenskiy. Vessels should not pass closer than 2 miles from this group, which is marked by a light.

2.26 Guba Pon'goma (65°22'N., 34°32'E.) is entered between Mys Pon'goma Navolok and Mys Khennoy Navolok, 7.5 miles NE. The village of Pon'goma stands close within the entrance of a creek, which flows through the S shore of the bay 3.5 miles WNW of Mys Pon'goma Navolok. Both shores of the bay are low and covered with trees near the entrance. The coves indenting the bay have rocky bottoms. Guba Pon'goma freezes at the beginning of November and opens again in the middle of May.

Ostrov Vysokaya Luda (65°19'N., 34°34'E.), an islet, lies 1 mile ESE of Mys Pon'goma Navolok. Some drying rocks lie about 0.8 mile E of this islet.

Ostrov Divinskaya Luda (65°24'N., 34°39'E.), a moss-covered islet, is located 2.5 miles SW of Mys Khennoy Navolok. A shoal, with a depth of 0.4m, lies 1 mile ESE of this islet. A drying rock, lying 2 miles SSW of the islet, is located at the SE end of an area of foul ground which extends seaward from the NW shore of Guba Pon'goma. Range beacons indicate the approach to the anchorage within Guba Pon'goma. Anchorage may be taken close ESE of the front range beacon, in depths of 11 to 15m. Anchorage can also be taken close N of the rear range beacon, in depths of 11 to 15m.

Mys Khennoy Navolok (65°26'N., 34°40'E.) is the NW entrance point of Onezhskiy Zaliv. Ostrov Khennoy, with a beacon standing on its E side, lies close S of this point.

Mys Khennoy Navolok to Mys Kirbey Navolok

2.27 Ostrov Syrovatka (65°30'N., 34°44'E.) lies close off the coast, 4.5 miles NNE of Mys Khennoy Navolok. Mys Kamennyy lies 4.5 miles NNE of this islet. Mys Solomennyy, a point rising to an isolated hill, is located 6.8 miles NNE of Mys Kamennyy. Ostrova Rob'yaki, consisting of two islets, lies 2.8 miles S of Mys Solomennyy. Both of these islets have steep cliffs and are conspicuous because of their reddish color. Ostrov Bol'shoy Rob'yak, the larger of the two islets, is marked by a lighted beacon. Anchorage, sheltered from N winds, can be obtained 0.5 mile SW of this islet, in depths of 10 to 18m, mud.

Ostrov Sambaluda (65°39'N., 35°14'E.) is a small, rocky islet covered with tundra and moss. A light is shown from this islet. A radiobeacon is situated at the light.

Sambaludskiy Stamik, lying 5.8 miles ENE of Ostrov Sambaluda, is a group of steep-to, drying rocks which should be given a wide berth. A lighted buoy is moored about 0.8 mile ESE of the group.

Caution.—As there are numerous rocks and shoals lying between Ostrov Sambaluda and the coast, vessels are warned not to use the passage leading between them.

2.28 Guba Kalgalaksha (65°40'N., 34°49'E.), entered between Mys Kamennyy and Mys Solomennyy, is a shallow inlet on the SW side of which lies Ostrov Oleniy. This inlet is encumbered with numerous islets and rocks, the largest of which are covered with shrubs and moss. A narrow channel, used by small craft, leads along the E shore. A village stands on the W shore of the inlet, 8 miles from Mys Solomennyy. The inlet freezes at the beginning of November and opens again in the middle of May.

Ostrov Luda Nakhkonitsa (65°48'N., 35°02'E.) lies 2 miles offshore, 8.3 miles NNE of Mys Solomennyy. A light is shown from this islet. Due to numerous rocks and shoals, vessels should not approach within 1 mile of the islet.

Guba Gridina (65°56'N., 34°43'E.) is entered between Mys Tolstik and Mys Kirbey Navolok, 5.5 miles NNW. Numerous rocks and shoals encumber the greater part of this bay. A village stands on the NW shore of a cove, which lies close S of a river mouth, on the W shore of the bay. Range beacons indicate the channel leading into the bay.

Anchorage can be obtained on the alignment of the range beacons, in depths of 13 to 18m, rock, about 0.6 mile from the front beacon. Anchorage can also be taken, in depths of 5.5 to 7.3m, about 0.2 mile from the front beacon.

Mys Kirbey Navolok (65°58'N., 34°42'E.), the SW entrance point of Kandalakshskiy Zaliv, is steep, bare, and reddish-colored in its lower part. A light is shown from a structure standing on this point.

Kandalakshskiy Zaliv

2.29 Kandalakshskiy Zaliv (66°30'N., 33°55'E.), extending 90 miles NW, is entered between Mys Kirbey Navolok and Mys Ludoshnyy, 35 miles NE. The highest land bordering the White Sea backs the E shore of this gulf, 14 miles ESE of the town of Kandalaksha. The inshore waters of the gulf are encumbered with islets and reefs, especially near the head. Ice forms in the gulf at the beginning of November and clears in the middle of May. The gulf contains some of the deepest water in the White Sea.

Caution.—A large number of mooring buoys have been placed in the approach to Kandalakshskiy Zaliv in the following positions:

a. 65°49’54”N, 36°12’03”E.
b. 65°49’59”N, 36°11’45”E.
c. 65°50’01”N, 36°12’15”E.
d. 65°50’05”N, 36°11’58”E.
e. 65°54’41”N, 36°15’57”E.
f. 65°54’48”N, 36°15’38”E.
g. 65°54’48”N, 36°16’10”E.
h. 65°54’54”N, 36°15’51”E.
i. 65°50’00”N, 36°12’00”E. (group of four)
j. 65°54’48”N, 36°15’54”E. (group of four)

Firing Area No. 53 is bounded by the coastline and lines joining the following positions:

a. 66°37’48”N, 34°22’45”E.
b. 66°37’48”N, 34°22’30”E.
c. 66°36’00”N, 34°21’21”E.

Kandalakshskiy Zaliv—Southwest Shore

2.30 The coast trends uniformly NW for 22 miles from Mys Kirbey Navolok to Mys Sharapov, with no off-lying islands. The coast gradually increases in height near Mys Sharapov. This section of the coast is comparatively little indented and steep-to with all known dangers lying within 1 mile of the shore.

Mys Sholombrodskiy (66°02'N., 34°36'E.), located 5 miles NW of Mys Kirbey Navolok, is bare, sloping, and reddish in color. Mys Orlov lies 1.2 miles NW of this point.

Guba Sukhaya, entered on the W side of Mys Orlov, is encumbered with rocks and dries. The entrance of this inlet can be identified by its black cliffs.

Mys Sharapov (66°14'N., 34°05'E.), 22 miles NW of Mys Kirbey Navolok, is a bare and reddish, granite point, which slopes steeply. This point, from which a light is shown, is conspicuous and can be easily identified from any direction.

Guba Nikol’skaya (66°13'N., 33°56'E.) is a cove entered 3.8 miles W of Mys Sharapov. Ostrov Sosnovets, with a small islet lying close E of it, and another small wooded island, lie in the entrance of this cove. Anchorage can be obtained 0.2 mile off the wooded island, in a depth of 11m. Proliv Glubokaya Salma, entered N of Ostrov Sosnovets, has a least width of 0.4 mile. This strait is deep in the middle and clear of dangers except for a shoal, with a depth of 13m, and a drying rock which lie on the SW side of the fairway channel.

2.31 Proliv Bol’shaya Salma (66°18'N., 33°50'E.) is the strait formed between the N side of Ostrov Pezhostrov and the S side of Ostrov Keret’, and the islets lying E of it. This strait leads into the roadstead off Keret’ and its fairway channel has depths of more than 20m and is clear of dangers.

Ostrova Dvinskiye Luba, on which a lighted beacon is situated, lies close off the E end of Ostrov Pezhostrov. A shallow bank extends seaward from the N side of this island.

Bol’shoy Keretskiy Reyd (66°17'N., 33°45'E.) lies W of the junction of Proliv Glubokaya Salma and Proliv Bol’shaya Salma, at the W extremity of Ostrov Pezhostrov. This roadstead has general depths of 10 to 70m and is sheltered from all winds except those from the E. Ostrov Keret’, 5 miles long, lies on the N side of Bol’shoy Keretskiy Reyd. Anchorage can be taken, in a depth of 12m, sand and gravel, S of this island.

Guba Keret’ (66°17'N., 33°37'E.), a small and landlocked inlet, is entered N from Bol’shoy Keretskiy Reyd. Reka Keret’ flows into the head of this inlet. The port area for Keret’ lies on the W side of an islet and only the village of Keret’ stands near the entrance to the river.

The recommended routes leading through the N part of Beloye More leads 24 miles WSW from a position SW of Olenitsa where Guba Keret’ is entered through Prolive Bol’shaya

Salma N of Ostrov Pezhostrov, 47m high and wooded, which lies 4 miles NW of Mys Sharapov (66°13.5'N, 34°06.6'E). Ostrov Keret' and several smaller islands lie N of the strait and Bol'shoy Keretskiy Reyd lies S of the W end of Ostrov Keret'.

Ostrov Sredniy lies between the roadstead and Guba Keret', which is entered through Proliv Srednyaya Salma W of the island. The village of Keret' stands at the head of Guba Keret'. Proliv Glubokaya Salma lies S of Ostrov Pezhostrov and joins Proliv Bol'shaya Salma E of Bol'shoy Keretskiy Reyd. Ostrova Dvinskiye Ludy lie close E of Ostrov Pezhostrov. There are wharves on the N and W sides of Ostrov Sredniy.

Ice.—The inlet and its entrance freeze at the beginning of November and are not navigable until the middle of May.

Aspect.—Several ranges indicate the entrance channel.

Pilotage.—Pilotage is compulsory. Vessels bound for Guba Keret' should send an ETA to the Captain of the Port 24 hours in advance and then confirm the time, with a request for a pilotage, 4 hours before arrival. Pilots will board vessels off Ostrov Borshovets.

Anchorage.—Vessels can anchor in Bol'shoy Keretskiy Reyd, between the S side of Ostrov Kerets' and Ostrov Sredniy, in depths of 14 to 44m, mud.

Anchorage can also be taken off the mouth of Reka Keret', in depths of 7 to 9m. The best berth is the W part of the roadstead and during strong E winds a more sheltered berth may be found for vessels with a draft of not more than 5.5m in Guba Keret', in depths of 5 to 8m, mud.

Keret (66°17'N., 33°33'E.) is a village standing on the N side of Reka Keret'. The port area of Keret' lies on the W and NW sides of Ostrov Sredniy.

2.32 Ostrova Kem' Ludy (66°25'N., 33°50'E.) is a group of low, granite islets lying 4 miles N of Ostrov Sidorov. A light is shown from a structure standing on the largest islet of the group. A bank, with a depth of 10.8m, lies 1 mile SSE of the light. A stranded wreck lies 0.5 mile SE of the light.

Guba Chupa is entered between the NW extremity of Ostrov Sidorov and Mys Kartesh, 3.2 miles WSW. This inlet extends 17 miles WSW and has a deep fairway. It has depths of 10 to 60m which decrease uniformly from the entrance to the shores. Both shores of the inlet are high and rocky. Range beacons indicate the approach to the inlet and the fairways within it. Vessels, with local knowledge, can anchor in convenient depths between Ostrov Sidorov and a group of islets and rocks, lying 1 mile W.

Guba Kiv is entered between Mys Kartesh and Mys Krasnyy, 4.5 miles NNE. A beacon stands on a hill, 1 mile W of Mys Krasnyy. Anchorage can be taken by vessels, with local knowledge, near the head of this bay. However, the anchorage is not recommended as the bay is open to E winds and the depths are considerable and irregular. Guba Kiv freezes in November and clears again at the end of May.

Banka Severnaya (66°26'N., 33°46'E.), with a depth of 0.7m, lies 2.8 miles NW of the light on Ostrova Kem' Ludy. Anchorage can be obtained between this bank and the N side of Ostrov Kemludskiy, in depths of 8 to 17m, mud and stones.

2.33 Proliv Velikaya Salma (66°30'N., 33°25'E.) is entered between Mys Kuzokotskiy and Mys Korozhnyy, 3.8 miles NW. This strait extends WNW for 10 miles and leads between the S side of Ostrov Velikiy and the mainland. A beacon stands on an islet which lies 0.4 mile SE of Mys Korozhnyy. A spar buoy marks a shoal bank which lies 1.8 miles E of the beacon. Guba Kuzokotskaya, entered on the S side of Proliv Velikaya Salma, affords shelter, with good holding ground, to vessels with local knowledge.

Guba Chernaya (66°31'N., 33°00'E.) is entered close S of Mys Kindo and mostly occupied by Ostrov Olenevskiy, a low, rocky, and wooded island. The island divides the inlet into two arms which have narrow entrances.

Vessels, with local knowledge, can anchor 0.5 mile NNE of the E extremity of the island, in depths of 13 to 16m. Small craft can anchor close S of the W extremity of the island in depths of up to 7m, sheltered from all winds.

Guba Rugozerskaya, lying at the head of Proliv Velikaya Salma, is entered between Mys Kindo and the SW side of Ostrov Velikiy.

The shores of the cove are wooded and rocky, it is encumbered with numerous rocks and islets. Local knowledge is required.

Mys Titov (66°38'N., 33°19'E.), a prominent point, is located 9 miles NW of Mys Korozhnyy. A lighted beacon stands on this point.

Ostrov Naumikha, from which a light is shown, lies 4 miles NNW of Mys Korozhnyy. Ostrova Sredniye Ludy, a group of steep and above-water rocks, lies about 5 miles ENE of this island. A light is shown from the largest rock of the group.

A number of shoal banks lie between Ostrov Naumikha and Ostrova Sredniye Ludy and can best be seen on the chart.

2.34 Guba Kovda (66°43'N., 32°57'E.), an extensive bay, is entered between Mys Kostylev and Mys Tolstik, 8.5 miles NW. The bay is encumbered with many dangers, but anchorage can be taken in a number of places. Ostrov Oleniy, an island, is 3 miles long and occupies the greater part of the head of the bay.

Guba Kovda is not designated as a port open to foreign vessels.

Ice.—In an average winter, the bay freezes in November and remains so until the end of May.

Tides—Currents.—The average rate of the currents in the area of the bay is 0.5 knot.

Depths—Limitations.—The fairway channel leading into Guba Kovda and to the various anchorages passes between a number of islets, rocks, and shoals. Local knowledge is required.

Aspect.—The reaches of the fairway are indicated by ranges. Many of the dangers lying near the fairway channel are marked by buoys. A lighted range indicates the approach to the bay.

Reka Kovda flows out through the SW shore of the bay. The village of Kovda stands along both sides of the outlet of this river.

Entry into Guba Kovda is between Ostrov Priglubnyy Baklysh, from which a light is exhibited, and Ostrov Mikkov (66°42.2'N 32°59.8'E), 1 mile SSE, through Bol'shoy Vneshniy Kovdinskiy Reyd, the outer roadstead between the N shore of the gulf and a chain of islands extending from Ostrov Mikkov to Ostrov Ovechiy, 2.5 miles W.

Pilotage.—Pilotage is compulsory. Vessels bound for Guba Kovda should send an ETA to the Captain of the Port 24 hours in advance and a confirmation message, with a request for pilotage, 4 hours before arrival. A pilot station stands on the N extremity of Ostrov Mikkov. Pilots can be contacted by VHF and board vessels in the outer roadstead.

Anchorage.—Vessels can obtain anchorage in the outer roadstead, between the N shore of Guba Kovda and the chain of islets which extend E from Ostrov Ovechiy. This roadstead has depths of 14 to 26m over a bottom of mud. The best anchorage lies 0.8 mile ENE of the N extremity of Ostrov Ovechiy. The inner roadstead affords anchorage for vessels with local knowledge.

Caution.—Caution is required as the incoming flood sets towards Mys Tolstik and Ostrov Oleniy and the outgoing ebb sets toward the smaller islands of the chain S of Bol'shoy Vneshniy Kovdinskiy Reyd.

2.35 Kovda (66°41'N., 32°52'E.), a village, is situated at the entrance to Reka Kovda in the SW part of Guba Kovda. It is fronted by the principal port for the area. Vessels with drafts of up to 6.7m can berth alongside a wooden wharf fronting the sawmill on the S side of Ostrov Ovechiy. Vessels with drafts of up to 6m can berth alongside another wooden wharf fronting the sawmill on the N side of the island.

2.36 The coast between Mys Tolstik and Mys Nishchevskiy, 7.5 miles NW, is wooded and rocky. Mys Popovka and Mys Verkhnavolok, located 1.5 and 3.8 miles, respectively, NW of Mys Tolstik are both steep and conspicuous points.

Ostrov Vachev (66°47'N., 32°55'E.) lies 1.5 miles E of Mys Verkhnavolok and contrasts sharply with its surroundings due to its height and dark color. A light is shown from a structure standing on the NW extremity of this island. A shoal bank lying 0.5 mile W of this light is marked by a spar buoy.

Proliv Vachevskaya Salma (66°46'N., 32°54'E.) is the strait lying between the mainland and Ostrov Vachev. The tidal currents in this strait attain rates of 1.5 knots and NW winds blow with great force. Small vessels can anchor in the strait close SW of Ostrov Vachev.

Guba Nishchevskaya (66°48'N., 32°42'E.) lies 2.5 miles W of Mys Verkhnavolok. This cove affords anchorage to small craft, with local knowledge, in depths of 5 to 8m. Ostrov Peschanka, which is moderately high and covered with peat, is the northernmost of numerous islets and rocks which lie E and NE of Mys Nishchevskiy. A beacon stands on the S side of this islet. Ostrova Rogovye Ludy, a group of low rocks and sand cays, lies 2 miles NNW of the above beacon. Ostrov Drestnoy Baklysh, from which a light is shown, is a bare, steep skerry lying 3.2 miles NW of Ostrov Peschanka.

Guba Knyazhaya (66°53'N., 32°27'E.) is entered between Ostrov Krestovyy and a point, 0.8 mile WNW. Both shores of this inlet are rocky and steep-to, except on the S side of the entrance. Ostrov Krestovaya Luda, lying 1 mile ENE of Ostrov Krestovyy, is a bare, granite island with steep shores.

A fish haven fronts the NW shore of the inlet and a small pier projects from the S shore. The Knyazhgubskaya hydroelectric power plant is situated in the vicinity of the inlet and is prominent. A village stands at the mouth of a river, at the head of the inlet.

Anchorage, sheltered from all winds and with good holding ground, can be obtained in any part of the inlet. The inlet freezes in November and clears at the end of May.

Ostrov Sedlovataya (66°55'N., 32°38'E.), an islet, lies 2.8 miles NE of Ostrov Krestovyy and is marked by a lighted beacon. Sedlovataya Ludy, an island, lies 1.8 miles NE of this islet and is surrounded by drying rocks and shallow water.

Ostrov Voley (66°55'N., 32°33'E.) lies 1.5 miles W of Ostrov Sedlovataya. Guba Kapshina, an inlet, is entered 1.5 miles N of this island and provides anchorage to vessels with local knowledge. The depths decrease gradually from 29m in the entrance of the inlet to 6m near the head.

Head of Kandalakshskiy Zaliv

2.37 The head of Kandalakshskiy Zaliv, extending 12 miles NW from a line joining Ostrov Voley and Guba Kolvitsa, is much encumbered by islands, islets, and rocks, which can best be seen on the chart.

Proliv Kibirinskaya Salma is the principal channel used for approaching Kandalakshskiy Reyd, the roadstead lying off the town of Kandalaksha. It leads NW between the E shore and a chain of islets lying in the middle of the gulf.

Guba Palkina (67°03'N., 32°21'E.), lying on the W side of the head of the gulf, is entered between a point, located 9 miles NNW of the beacon on Ostrov Sedlovataya, and Mys Voronishnyy, 2.2 miles NW. Numerous islets and rocks fringe both entrance points. The only channel leading into this inlet passes S of Ostrov Glov, a wooded islet, which lies 1.2 miles SE of Mys Voronishnyy.

Anchorage can be taken in Guba Palkina, in depths of 11 to 13m, about 0.6 mile from the head. However, due to the presence of unmarked dangers, care must be taken when approaching this anchorage.

2.38 Vitino (67°05'N., 32°19'E.) (World Port Index No. 62894), which exports oil products and gas condensate, is situated NW of Mys Voronishnyy on the W side of the head of Kandalakshskaya Guba. The port is open to foreign vessels.

Ice.—Although ice is prevalent during many months of the late autumn, winter, and early spring, Vitino remains open all year with the use of icebreaker assistance. The harbormaster will make the official declaration of the start and end of the ice season. Requests for icebreaker assistance are made 72 hours prior to arrival at the position where assistance will commence and then reconfirmed 24 hours prior to arrival at that position. Ice navigation restrictions in place for Vitino during the ice season are presented in the table titled **Vitino—Ice Navigation Restrictions.**

Laden tankers must use tug or icebreaker assistance through the approach channel. Tugs and icebreakers are not compulsory for tankers entering the port except during the ice season. Vessels arriving from sea must not enter the ice without permission from the harbormaster.

Tides—Currents.—Tides rise 2.5m at springs and 1.6m at neaps. The tidal ranges will be reduced by as much as 0.5m during periods of a strong increase in atmospheric pressure.

Depths—Limitations.—The port is approached from the White Sea (Beloye More) through Kandalakshskiy Zaliv. The berthing facilities and oil terminal are reached by navigating through an outer road and an inner road connected by a dredged channel that is marked by buoys.

For berthing information, see the table titled **Vitino—Berth Information.**

The outer road limit is bounded by lines joining the following positions:

a. 66°53’42”N, 32°39’00”W.
b. 66°54’18”N, 32°39’00”W.
c. 66°54’18”N, 32°42’00”W.
d. 66°53’42”N, 32°42’00”W.

The inner road limit is bounded by lines joining the following positions:

a. 67°04’13.0”N, 32°21’13.0”W.
b. 67°04’43.0”N, 32°22’35.0”W.
c. 67°05’14.6”N, 32°21’54.0”W.
d. 67°05’11.5”N, 32°19’49.5”W.
e. 67°04’56.0”N, 32°19’05.0”W.

The channel connecting the outer and inner roads is maintained at a depth of 12.5m.

Pilotage.—Pilotage is compulsory. Requests for pilotage should be made to the harbormaster 48 hours to 24 hours and and confirmed 4 hours before arrival at the pilot station 2.5 miles S of Ostrova Kibirinsky Ludy (66°53.3’N., 32°49.8’E.).

Departing vessels or vessels shifting their berth should request a pilot 2 hours in advance. Any cancellation of a pilot request should be made not less than 1.5 hours before the time that had been fixed for the beginning of the operation.

Vitino—Berth Information

Berth	Length	Depth	Maximum Vessel			Remarks
			LOA	Draft	Beam	
Vitino Specialized Sea Port						
No. 01	80m	3.5m	—	—	—	Used by port’s own fleet vessels.
No. 02	215m	4.0m	—	3.6m	—	Oil, fuel, and gas condensate.
No. 03	321m	15.9m	250m	15.4m	44.0m	Crude oil, clean products, and dirty products.
No. 04W	180m	13.7m	230m	13.0m	32.0m	Crude oil, dirty products, clean products, ore, and general cargo.
No. 04E	180m	13.7m	230m	13.0m	32.0m	Crude oil, dirty products, clean products, ore, and general cargo.

Vitino—Ice Navigation Restrictions

Ice Thickness	Minimum Ice Class required for vessels to proceed with or without icebreaker assistance	Minimum Ice Class required for vessels to proceed only with icebreaker assistance	Vessel types prohibited from sailing
Continuous coverage of 10-15cm	Ice Class 1 or higher	No ice strengthening	Towed barge trains
Continuous coverage of 15-30cm	Ice Class 2 or higher	Ice Class 1 or higher	Towed barge trains or no ice strengthening
Continuous coverage of 30-50cm	Ice Class 3 or higher	Ice Class 1 or Ice Class 2	Towed barge trains or no ice strengthening
Continuous coverage greater than 50cm	Ice Class 4 or higher	Ice Class 2 or Ice Class 3	Towed barge trains or no ice strengthening or Ice Class 1

Port of Vitino

Port of Vitino (Berth No. 3 and Berth No. 4)

Regulations.—The Barents Sea and White Sea (Beloye More) Reporting System is in operation for the approach to Vitino. For specific details on procedures to follow including a list of Control Points (Reporting-in-Points) in this system, see para 1.1.

One-way traffic control is in force at all times in the approach fairway. The time for a vessel being stopped or anchored in the approach fairway as a result of technical damage must not exceed 1 hour.

The following are extracts from the publication "The Obligatory Regulations for the Seaport Vitino". A copy of the complete set of regulations can be provided upon request after arrival in the port.

Speed limits are, as follows:

1. Approach channel—8 knots.
2. Inner roads—6 knots.

Approach channel transits are prohibited for the following types of vessels:

1. Ballasted vessels over 150m loa when wind speeds are greater than 23 knots.
2. Loaded vessels over 150m loa are not allowed to transit the approach channel when wind speeds are greater than 27 knots.
3. All vessels if wind speeds are greater than 38 knots.

Navigation in the port area is prohibited when visibility is less than 1.5 miles.

Tankers larger than 30,000 gt are not permitted to moor at the Berth No. 4 (deep water berth) when wind speeds are greater than 23 knots.

Small tankers at Berth No. 2 and Berth No. 3 are not permitted to moor when winds speeds are greater than 26 knots.

All loading of any vessel larger than 30,000 gt is stopped when wind speeds are greater than 20 knots unless tug assistance is being provided. For smaller vessels. loading operations will stop when winds are greater than 30 knots.

The approach channel passes through the Kandalaksha State Nature Reserve. Navigating outside the fairway and landing on the islands of the reserve are prohibited.

Tankers in laden condition must use tug or icebreaker assistance throughout the approach channel.

Contact Information.—See the table titled **Vitino—Contact Information**.

Vitino—Contact Information	
Port	
Telephone	7-815-33 6-9471
Facsimile	7-815-332-3228
E-mail	master@vitino.ru
Port Authority	
E-mail	stvor@vitino.spb.ru
Web site	http://www.vitino.ru
Port Control	
Call sign	Vitino 1
VHF	VHF channels 12 and 16
Dispatcher	
Call sign	Vitino 2
VHF	VHF channels 12 and 16
Pilots	
E-mail	psc@vitino.ru
Note.—All stations operate 24 hours.	

Anchorage.—There are two designated anchorages, defined as follows.

1. Anchorage Area No. 1, with depths of 55m, bounded by lines joining the following positions:
   a. 66°53'42"N, 32°50'46"E.
   b. 66°54'18"N, 32°50'46"E.
   c. 66°54'18"N, 32°49'14"E.
   d. 66°53'42"N, 32°49'14"E.
2. Anchorage Area No. 2, with depths of 14m, centered on position 67°04'50"N, 32°21'28"E, with a radius of 380m.

Anchoring within the approach channel is prohibited. If there is an emergency causing a vessel to anchor the Port Dispatcher should be notified immediately and tug assistance requested.

2.39 Guba Kanda (67°08'N., 32°25'E.) is entered N of a point lying 3 miles NW of Mys Voronishnyy. This inlet is encumbered with numerous islets and rocks and should not be used. A bridge spans the inlet, close inside the entrance.

Proliv Kibirinskaya Salma (66°58'N., 32°49'E.) is the only practicable channel leading to Reyd Kandalakshskiy. The route through this channel is indicated by four sets of range lights. Kibirinskiy Ludy Range, the first leg of the channel, aligns a course of 327°06'; Vonyuchiy Range, the second leg, aligns a course of 344°30'; Krestovyye Range, the third leg, aligns a course of 317°54'; and Kandalakshskiy Range, the final leg, aligns a course of 296°12' and indicates the fairway leading to abreast the town of Kandalaksha.

Kandalakshskiy Reyd (67°08'N., 32°23'E.), lying between the line joining the front beacon of the Kandalakshskiy Range and the NE shore of the gulf, is the anchorage area for Kandalaksha. Large vessels usually anchor 0.2 mile off the NE shore, in depths of 11 to 18m. The best anchorage for small vessels lies off a small indentation on the E side of the mouth of Reka Niva, in depths of 11 to 18m.

2.40 Kandalaksha (67°08'N., 32°25'E.) (World Port Index No. 62890) stands along both banks of Reka Niva, close within the entrance. This port is the only one open to foreign ship traffic in all of Kandalakshskiy Zaliv and handles all types of bulk cargo. Vessels up to 40,000 dwt, 200m in length, beam of 30m, and draft up to 9.8m can be accommodated

Courtesy of Kandalaksha Port Authority

Kandalaksha

Winds—Weather.—Fresh SW or SE winds with snow are frequent in spring. In summer, N to NW winds, with fine weather, or NE and SE winds, with fog and rain, prevail.

Ice.—The port freezes over from the beginning of November to the end of May. However the ice does not become thick enough to hinder navigation until January through April, when icebreaker assistance is needed.

Tides—Currents.—The tides rise about 2.5m at springs and 1.6m at neaps.

The tidal currents attain rates of 0.5 knot to 1.5 knots.

Depths—Limitations.—The main approach channel to the inner roadstead is 8 miles long and the fairway has a least depth of 8.8m. The main approach channel is reached from the White Sea (Beloye More) through Kandalakshskiy Zaliv. See paragraph 2.38 for details about this outer approach.

The inner roadstead includes the area up to 0.3 mile from the shore between Mys Smol'nyy Navolok (67°08'N., 32°26'E.) and latitude 67°08'42"N. Generally, vessels up to 40,000 dwt, 200m in length, 30m in width, and a draft of 9.8m can be accommodated.

For berthing information, see the table titled **Kandalaksha Commercial Sea Port—Berth Information.**

Pilotage.—Pilotage is compulsory for all vessels. Pilots board about 1 mile SE of the Gorelye Islands.

During the ice season (usually December through April) when pilots are unable to board the vessel, independent passage through the ice canal along the Anisimovskiy and Kandalakshskiy ranges is permitted.

The distance through this canal is approximately 1 mile.

Requests for pilots should be made 48 hours and 24 hours in advance, with a confirmation sent no later than 4 hours prior to arrival at the pilot boarding position.

Pilotage is also required for shifting berths and for departure from the port and should be requested via telephone or by VHF to the following authorities:

1. Port Duty Officer at least 2 hours before departure or berth shifting.
2. Kandalaksha Port State Control inspection by radio at least 24 hours before departure or shifting berths with confirmation 6 hours before movement if the vessel is in Umba and Lesozavodskiy.

Regulations.—The Barents Sea and White Sea (Beloye More) Reporting System is in operation for the approach to Kandalaksha. For specific details on procedures to follow including a list of Control Points (Reporting-in-Points) in this system, see paragraph 1.1.

Vessels should send their ETA to the port, via the agent, 48 hours and 24 hours in advance. Vessels should confirm their ETA and advise the port of their sanitary condition to the Port Controller 6 hours in advance.

Vessels with drafts of up to 8m may enter or depart at any time. Vessels with a draft greater than 8m may only enter or depart from 2 hours before HW until the tide begins to ebb.

During periods of limited visibility vessels may not be underway in the fairway without special permission from the harbormaster as well as agreement between the master and the pilot.

Large vessels in ballast will not be permitted to depart the dock if wind speeds are force 6 or greater; the same is true for large vessels in loaded condition for wind strengths of force 7 or greater.

Vessels speed in the inner roadstead of the port must not exceed 4 knots.

Overtaking another vessel is prohibited in the fairway and in the compulsory pilotage area.

Vessels with a draft of less than 4m must keep to the starboard outer edge of the fairway when meeting large vessels.

Movement within the port is prohibited when visibility is less than 0.4 mile.

Kandalaksha Commercial Sea Port—Berth Information			
Berth	**Length**	**Depth**	**Draft**
No. 01	130m	5.3m	8.2m
No. 02	88m	5.0m	8.2m
No. 03	138m	7.2m	9.8m
No. 04	110m	7.2m	9.8m
No. 09	115m	3.6m	5.3m

When passing between Ostrova Kibirinskiye Ludy (66°56'N., 32°50'E.) and the port or when anchored or moored at a berth, a continuous watch must be maintained on VHF channel 16 unless shoreside telephone service has been established.

Contact Information.—For port and pilot contact information, see the table titled **Kandalaksha—Contact Information**.

Kandalaksha—Contact Information	
Port Authority	
Telephone	7-815-339-2163
	7-815-339-2141
Facsimile	7-815-332-3138
E-mail	info@portofkandalaksha.ru
Web site	http://www.portofkandalaksha.ru
Port Control/Berth Operator/Port Fleet	
Call sign	Kandalaksha Radio 2
VHF	VHF channels 11, 14, and 16
Harbormaster	
Call sign	Kandalaksha Radio 5
VHF	VHF channels 16 and 67
Pilots	
Call sign	Kandalaksha Pilot
VHF	VHF channels 16 and 68
Facsimile	7-815-339-9206
E-mail	kandalakshapilot@mf-rmp.ru
Note.—All stations operate 24 hours.	

Anchorage.—Vessels can anchor only in the outer roads, in depths of 14 to 16m, mud, or in position 67°08'N, 32°23'E, in depths of 35 to 40m, mud.

Directions.—Port Kandalaksha is approached through Kandalakshskiy Zaliv from SE and is entered through Proliv Kibirinskaya Salma.

Caution.—The most dangerous area is situated at the crossing point of ranges Kandalakshakiy-Krestoviy to abeam of Bolshoy Berezoviy Island where there is a bank of 8.8m and the fairway width is reduced to 60m. Traffic speed in this area must not exceed 6 knots.

2.41 Guba Kolvitsa (67°04'N., 32°52'E.), lying 9.5 miles SE of Kandalaksha, is entered between Mys Dmitriyev and Mys Kolvitsa, 1.8 miles NW. A village stands on the N side of the mouth of a river which flows into the head of this inlet. A spar buoy marks the seaward edge of a bank lying on the S side of the entrance to the inlet. Anchorage can be obtained off the village, in depths of 11 to 16m.

Ostrova Kibirnskiye Ludy, a chain of four granite skerries, lies 2 miles W of **Mys Maksimov** (66°56'N., 32°55'E.). Banka Kiberskaya Korga, which dries and is steep-to, lies 1.5 miles SW of this chain. Banka Pentel'skaya Korga, lying about 1 mile WSW of Mys Pentel'skiy, consists of sand and stone. This bank, which dries, is steep-to and is marked on its S side by a spar buoy. The sea breaks over this bank at HW during a fresh breeze. A shoal patch, with a depth of 13.6m, lies 5 miles WNW of Mys Pentel'skiy.

Ostrova Rezanovy Ludy (66°47'N., 33°16'E.), consisting of two low skerries covered with peat, lies 3.5 miles SE of Mys Pentel'skiy. A light is shown from the SE skerry. Banka Tzar, lying 1.5 miles SSW of the above light, has a least depth of 3.3m and is marked on its S side by a lighted buoy.

Mys Kochinny (66°43'N., 33°30'E.), from which a light is shown, is wooded and moderately steep. This point is located 3 miles WNW of **Mys Pedunov** (66°42'N., 33°28'E.), the W entrance point of Guba Por'ya.

Guba Por'ya (66°45'N., 33°42'E.) is entered between Mys Pedunov and Mys Shombach, a high and bare cliff of reddish granite, 7 miles E. The shores of this inlet are indented by a number of extensive bights. Guba Por'ya freezes in November and clears in May. Vessels can winter within some of the large bights.

2.42 Ostrov Bol'shoy Sedlovatyy (66°42'N., 33°40'E.), the most seaward of a chain of islets and rocks extending nearly 1 mile SE from Mys Pedunov, is high and wooded. A light is shown from the S end of this islet.

Ostrova Stolbovyye Ludy is a group of three bare, granite skerries lying 3.5 miles WSW of Mys Shombach. A light is shown from the middle skerry. Ostrova Krestovyye, consisting of two bare and rocky islets, lies 0.8 mile SW of Mys Shombach. Ostrov Palenyy, lying 0.2 mile W of the W islet of Ostrova Krestovye, is also rocky and bare.

Guba Tar is entered between Mys Shombach and an islet, 1 mile W. This latter islet lies at the S end of a chain of islets and rocks extending seaward from the mainland. Small craft can anchor 0.4 mile from the head of Guba Tar.

Guba Vostochnaya Por'ya (66°45'N., 33°48'E.), on the E side of Guba Por'ya, is entered between Mys Glubokiy and the S extremity of Ostrov Gorelyy, 1.5 miles NW. A light is shown from a structure standing on Ostrov Gorelyy. Anchorage can be obtained in the center of this inlet, in depths of 50 to 90m.

2.43 Guba Lov (66°42'N., 34°03'E.), an inlet, is entered 3 miles E of Mys Shombach. It extends 4 miles N and is flanked by rocky cliffs. Ice forms in the inlet in November and clears in May. The tidal currents in the inlet are weak.

The entrance is clear of dangers except for an isolated depth of 4m which lies 0.4 mile WNW of the E entrance

point. Small vessels can anchor 2.5 miles within the entrance, in a depth of 22m.

Guba Pil'skaya (66°41'N., 34°07'E.) is entered between Mys Pil'skiy and a point, 0.8 mile WNW. Porozhki Narrows lies in the central part of this bay and has depths of 6 to 12m. Tidal currents in the bay attain rates of 3 to 3.5 knots in the narrows. Range beacons, bearing 027°42', stand on a point on the W shore and indicate the channel leading into the bay. Sheltered anchorage can be taken in a cove, which lies 0.8 mile NE of Mys Pil'skiy, in a depth of 14m, silt. Vessels with drafts not exceeding 4.6m can anchor near the head of the bay.

Guba Ostrovskaya (66°41'N., 34°10'E.), entered 1.8 miles E of Mys Pil'skiy, is flanked by cliffy, wooded shores. An islet, lying close to the W entrance point, has bare, reddish cliffs and is sparsely wooded. Small craft can anchor, in a depth of 14m, within the southernmost of two small coves indenting the W side of the inlet, 0.5 mile from the entrance.

Guba Padan (66°41'N., 34°14'E.), an inlet, lies with its entrance located 1 mile E of the entrance to Guba Ostrovskaya. The shores of this inlet are high, especially on the E side. Anchorage can be obtained, in a depth of 20m, mud, abreast a high, steep hill which projects from the W shore of the inlet, 2 miles from the entrance.

Guba Umba (66°40'N., 34°18'E.) is a small inlet used only by small craft. Its entrance lies about 2 miles E of the entrance to Guba Padan. The village of Umba stands on the W shore of the inlet and is prominent.

Guba Malaya Pir'ya, an inlet, lies 0.5 mile E of Guba Umba. A shoal, with a depth of 4.3m, lies 0.2 mile SW of the E entrance point and is marked by a spar buoy. A drying rock lies 0.2 mile SW of the W entrance point. Range beacons stand on the W shore of the inlet, 1 mile N of the W entrance point, and, bearing 009°, indicate the channel leading into the inlet. A village stands at the W end of a narrow channel which connects this inlet with Guba Bol'shaya Pir'ya. Anchorage can be obtained, in a depth of 12m, mud, abreast the post office situated in the village.

2.44 Guba Bol'shaya Pir'ya (66°40'N., 34°21'E.), a narrow inlet, extends 2.5 miles N from its entrance, which is located 1 mile N of Mys Budrach. The inlet is considered the best place for a vessel to winter in Kandalakshskiy Bereg. A light is shown from a structure standing on the W entrance point. Lighted ranges, bearing 004°30' and 018°15', indicate the channel leading through the inlet to the head. Spar buoys mark the outer edges of the shore banks which extend from both sides of the inlet.

Pilotage.—Pilotage is compulsory. Vessels bound for Guba Umba should send an ETA to the Captain of the Port 24 hours in advance and a confirmation message, with a request for pilotage, 4 hours before arrival. The pilot station, for vessels bound for Guba Bol'shaya Pir'ya and the inlets lying W as far as Guba Pil'skaya, is situated on Ostrovok Nablyudeniya. The inlet freezes between November and May.

Anchorage.—Vessels can anchor 0.3 mile NE of Ostrovok Nablyudeniya, in depths of 13 to 18m, mud and stones. A more sheltered anchorage lies in the wider part of Guba Bol'shaya Pir'ya, in depths of 11 to 16m, mud and stones.

2.45 Guba Sosnovaya (66°38'N., 34°26'E.) is an inlet entered around the N end of Ostrov Vol'ostro. This inlet extends 2.8 miles E from its entrance, which is 1 mile wide. The shores are high and wooded. Anchorage can be taken in the middle of the inlet, in depths of up to 22m, good holding ground.

Ostrov Vol'ostrov (66°37'N., 34°20'E.) lies 2 miles S of the entrance to Guba Bol'shaya Pir'ya. The shores of this island are bare and reddish in color which makes it easy to identify against the woods standing on the peninsula behind it. A light is shown from the W side of the island. A rock, with a depth of 2.9m, lies 0.4 mile W of the island and is marked by a spar buoy.

Anchorage can be obtained off the N entrance of the strait that separates this island from the mainland, in depths of 15 to 18m, mud and sand. Anchorage can also be taken in the S entrance of this strait, in depths of 10 to 15m, but this roadstead is exposed to S winds.

Mys Turiy (66°32'N., 34°30'E.), from which a light is shown, lies 6 miles SE of Ostrov Vol'ostrov. This point is the S extremity of a peninsula which is steep-to on all sides. The peninsula is mostly wooded, but bare, reddish granite shows through in places. Kuzreka, a village, is situated on the E side of the mouth of a river which lies 8.5 miles NE of Mys Turiy. Small craft can enter the river at HW and anchor off the village. Range beacons, bearing 017°°, indicate the approach to the anchorage.

Caution.—A Regulated Area, into which entry is prohibited, extends 3.5 miles S into the fairway from the vicinity of Mys Turiy.

See paragraph 2.6 for details regarding a submarine cable extending SE from vicinity Mys Turiy across the White Sea (Beloye More).

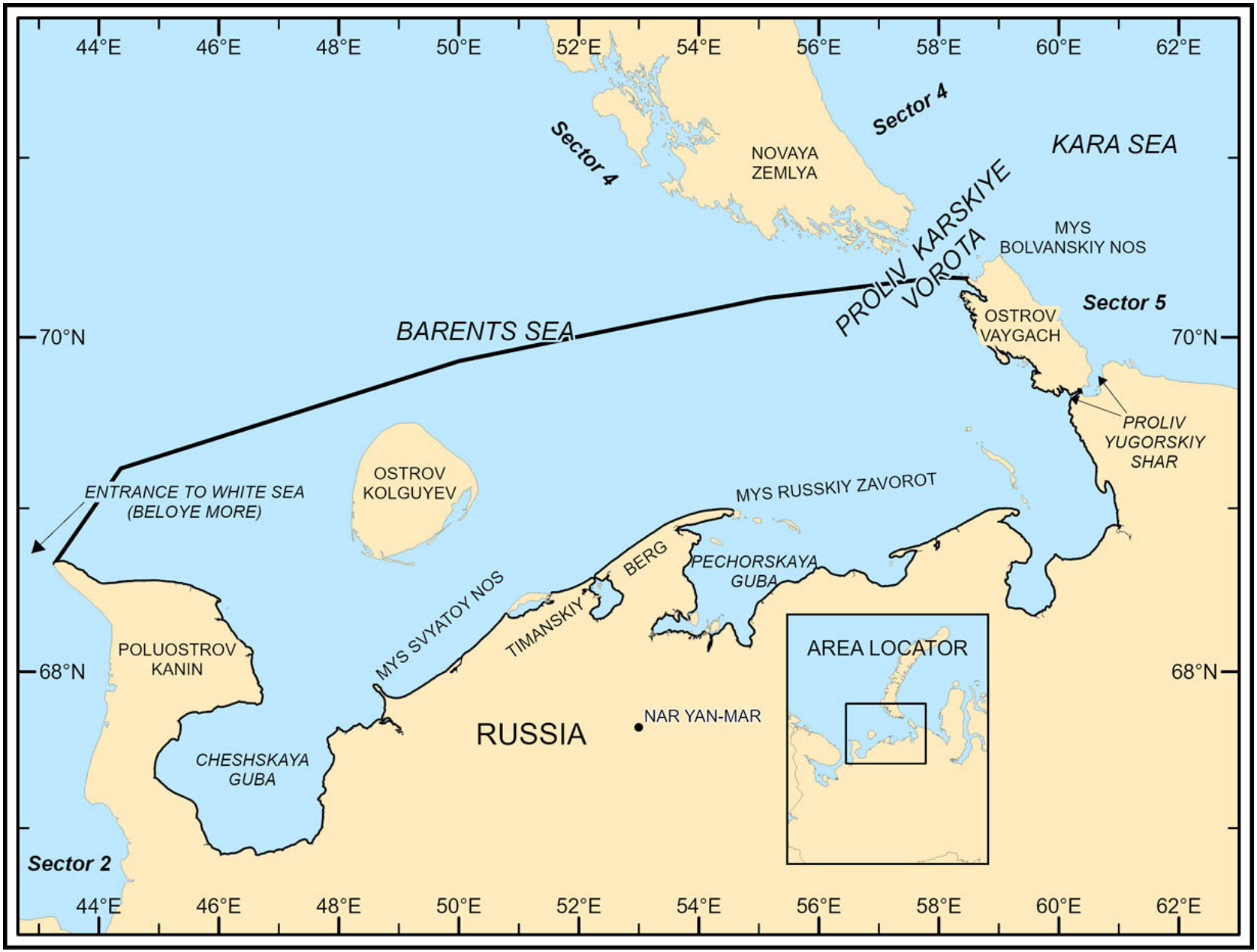
2.46 Guba Olenitsa (66°27'N., 35°17'E.), a bay, lies 19 miles ESE of Mys Turiy and its entrance is 4 miles wide. Both entrance points are wooded, but the shores of the bay are low and swampy. The village of Olenitsa stands on the E bank of a river which flows into the head of the bay. A bare spot, located on the slope of a hill behind the village, forms a good landmark. Several shallow shoals, the positions of which are doubtful, lie off the approach to the bay and may best be seen on the chart.

The main channel, which leads to the anchorage area, has a least depth of 5.4m. Anchorage can be obtained by vessels, with drafts of up to 5m, close SW of the mouth of the river. This roadstead has a depth of 5.4m over a bottom of silt, sand, and stones. However, the anchorage is not safe during strong winds from between S and W.

Banka Marniks, a rocky shoal, has a least depth of 3.8m and lies 1.5 miles offshore, 7.5 miles SE of the E entrance point of Guba Olenitsa.

A bank, with a depth of 1.4m, lies 0.6 mile E of Banka Marniks and several dangerous wrecks lie in its vicinity.

Sal'nitsa, a coastal village, stands 2.8 miles WNW of Mys Ludoshnyy, the N entrance point of Kandalakshskiy Zaliv. This village is situated on the E bank of Reka Sal'nitsa. A prominent building, formerly a chapel, stands on the E entrance point of the river.



Additional chart coverage may be found in NGA/DLIS Catalog of Maps, Charts, and Related Products (Unlimited Distribution).

Sector 3 — CHART INFORMATION

Sector 3
The Barents Sea—Southeast Shore

Plan.—This sector describes the SE shore of the Barents Sea, from Mys Kanin Nos to Mys Bolvanskiy Nos, and the off-lying islands. Proliv Yugorskiy Shar, the coast of Ostrov Vaygach, and Proliv Karskiye Vorota are also described. The descriptive sequence is ENE from Mys Kanin Nos to Mys Bolvanskiy Nos, NE in Proliv Yugorskiy Shar, NW along the SW and NE sides of Ostrov Vaygach, and NE in Proliv Karskiye Vorota.

General Remarks

3.1 The coast between Mys Kanin Nos and Mys Bolvanskiy Nos, 350 miles ENE, is fringed by a belt of tundra with barren country lying inland. It is sometimes steep and rocky, and descends in abrupt cliffs to the sea, but more often it slopes down gently in mudbanks and sandhills. Several large bays indent this section of coast.

From Mys Kanin Nos, the coast trends E and SE for about 100 miles to Mys Mikulkin, the W entrance point of Cheshskaya Guba. Mys Barmin, the E entrance point, lies 31 miles ESE of Mys Mikulkin. Indigskaya Guba lies between Mys Barmin and Mys Svyatoy Nos, 21 miles NE. From the latter point, the coast continues for about 150 miles in a general NE direction to Mys Russkiy Zavorot, which is located on the W side of Pechorskaya Guba. Between Russkiy Zavorot and Mys Belyy Nos, 128 miles NE, the SE end of the Barents Sea forms the regular bight of Guba Khaypudyrskaya which extends about 20 miles S.

Ostrov Kolguyev lies 47 miles N of Mys Svyatoy Nos. This island has the appearance of a rounded tableland, the middle part consisting of high hills with no outstanding peaks. A chain of smaller islands, lying in the approach to Proliv Yugorskiy Shar, extends 37 miles NW from a position 5 miles ENE of the extremity of Mys Medynskiy Zavorot.

Reka Pechora is the most important of many rivers which discharge into the sea along this coast. Naryan Mar lies 52 miles SSW of the river entrance and is the principal commercial port in this area.

Ostrov Vaygach, about 57 miles long in a NW/SE direction, is separated from the mainland by Proliv Yugorskiy Shar and from the S part of Novaya Zemlya by Proliv Karskiye Vorota. These two straits afford seasonal communication between the Barents Sea and the Kara Sea. Passage through the straits depends mainly on ice conditions. Numerous dangers lie around this island, particularly off its SW and NW sides. From seaward, the surface of the island appears fairly even, but several ridges stand parallel to the SW coast, about 5 miles inland. In addition, a range of hills rises parallel to the NE coast of the island, about 7 miles inland.

Winds—Weather.—In autumn, winter, and early spring, winds in the Barents Sea and Kara Sea regions are generally SSW to S. Severe gales accompany the passage of cyclonic storms and the winds reach or exceed force 7 along the open coast on 7 or 8 days a month from November to February, inclusive. These strong winds also blow on an average of 5 days during March and on 3 days during April and October. The wind direction changes towards N and the velocity decreases throughout the area in April, with winds of force 7 or stronger occurring fewer than 3 days a month from May to September. Prevailing winds along the coast of Timanskiy Bereg are NE from June through August. Northwest winds are also quite frequent in August.

Average cloudiness exceeds 75 per cent coverage throughout the year over the Barents Sea, with fewer than 30 clear days and more than 180 cloudy days annually. Maximum cloudiness occurs from June through October and minimum cloudiness occurs in March and April.

The amount of precipitation is minimal, decreasing from S to N and nowhere exceeding 51cm a year. The months from November to May are relatively dry. A short season of moderate rain lasts from June to October. In winter, snow falls 10 to 15 days each month, accumulating until the spring thaw.

Poor visibility is frequent during all seasons throughout the area. The worst visibility is caused by fog and snow. Fog is prevalent during the entire year. Winter fog is less frequent. Beginning with April, the recurrence of fogs begins to increase, reaching its maximum in July and August, after which time it decreases. In autumn, and especially in the first half of winter, where there are sharp decreases in air temperature, it is not unusual to observe “sea smoke,” a low fog floating over the sea.

Ice.—Early in October, ice begins to form in the small bays and inlets of the Barents Sea and it is closed to navigation from November through May. However, with the aid of icebreakers, some shipping is carried on until the end of December, beginning again in April.

The mean date for the breaking up of the ice in Proliv Yugorskiy Shar is June 28, but the strait is not clear of ice until about August 1. The month of August can be considered as the best for navigating between Mys Kanin Nos and Proliv Yugorskiy Shar.

If ice from the Kara Sea does not drift into the strait during the summer it may not become frozen solid until December. However, if ice is blocking the strait when freezing sets in, the entire passage may be closed to navigation at the end of October. Navigation may be possible in the strait about the middle of June, or it may be blocked during the entire summer. The mean date for the closing of navigation is November 23.

The presence of ice in Proliv Karskiye Vorota during the navigation season is closely connected with the ice conditions in the SW part of the Kara Sea and off the E coast of Novaya Zemlya. When ice is present in these areas, winds from NW through N to E will cause ice to appear quickly in the strait, mostly on the NW side. If winds from these directions persist, the entire strait may become blocked with ice which, when tightly packed, forms a wall off the NE entrance.

Tides—Currents.—The Barents Sea region, which is one of the chief meeting grounds between relatively warm Atlantic water and cold Arctic water, can be distinguished by its blue color and transparency. The current can usually be traced to about 70°N and 52°E, but farther E it meets a current setting outward from Pechorskaya Guba. The current initially flows NE and then, with perhaps a branch setting E to Proliv Yugorskiy Shar, N and W along the S coast of Novaya Zemlya. Vessels bound for Proliv Yugorskiy Shar are often set N toward Bukhta Lyamchina. Between Ostrov Matveyev and the strait, irregular currents, setting N and NNW with velocities of up to 4 knots, have been experienced.

The tide in the Barents Sea is semidiurnal in character. Diurnal inequality is relatively small except in Proliv Yugorskiy Shar, where a noticeable inequality exists between the heights of morning and afternoon tides.

The tidal range may vary from about 0.9m in the narrow straits of Proliv Yugorskiy Shar to 2.1m in the SE part of the sea.

In the N part of Zemlya Frantsa-Iosifa the tides are semidiurnal, but in the middle and S parts of the archipelago the tides are of a mixed type. The tidal ranges vary between 43 and 56cm and are strongly affected by winds and barometric pressure.

Regulations.—For information on the Northern Sea Route, see paragraph 1.2.

Caution.—There are a number of formerly mined areas, which are considered to be safe for surface navigation, lying between Poluostrov Kanin and Ostrov Kolguyev, located NW of Ostrov Kolguyev, and between that island and Mys Belyy Nos.

Several Explosive Dumping Areas, the limits of which are shown on the chart, lie in the waters described in this sector.

It is reported (1992) that an unlit target barge is moored about 98 miles NW of the N extremity of Ostrov Kolguyev.

Mys Kanin Nos to Cheshskaya Guba

3.2 **Mys Kanin Nos** (68°40'N., 43°17'E.), the low and narrow NW extremity of Poluostrov Kanin, has been previously described in paragraph 1.63.

Prevailing winds on the outer coasts of Poluostrov Kanin are S from January to March, E during April, S during May, NE from June to August, S during September, and SW from October to December.

The climate along the N and NE coasts of Poluostrov Kanin and in Cheshskaya Guba is relatively mild. Along the outer coasts, the average annual air temperature is -1.1°C. The coldest months are January and February and the warmest are July and August. The summer months have sharp fluctuations in temperature.

Tidal currents in the vicinity of Mys Kanin Nos are reported to be both strong and irregular, sometimes attaining a rate of 5 knots. Depths off the N side of Mys Kanin Nos are very irregular. Reefs lie up to 1.5 miles offshore, and farther E there are shoals extending 3 to 5 miles offshore.

Caution.—In thick weather or during NW gales, the NE coast of Poluostrov Kanin should be given a berth of not less than 20 miles as the depths off it are very irregular. In clear weather, it should not be approached within 14 miles or in depths of less than 50m.

The coast, for 55 miles E of Mys Kanin Nos, is steep and 15 to 27m high, being composed of sandy clay. The coast extending to Mys Laydennyy, 7 miles farther ESE, becomes sandy and is very low.

Ostrov Korga (68°22'N., 46°08'E.), located in an area of sand spits and banks, lies parallel to the coast about 2.5 miles SE of Mys Laydennyy. **Vostochnaya Kambal'nitsa Light** (68°24'N., 46°08'E.), equipped with a radar reflector, is shown from a structure standing near the middle of this island. A prominent wooden house, with an adjacent shed, is situated 1 mile SE of the light. A 3.5m shoal lies 2 miles NE of the SE end of Ostrov Korga. Extensive drying sand banks join the NW end of the island to the mainland and almost fill the bay lying S of Mys Laydennyy.

The SE end of Ostrov Korga is steep-to. The channel lying between it and the NW edge of the sand banks has depths of up to 12m and leads from seaward to a deep pool located SW of the island. Anchorage can be obtained in this pool by small vessels with local knowledge, sheltered from all winds.

A sloping cone-shaped hill, 111m high, stands 8 miles W of Mys Laydennyy and can be readily identified.

The coast near the mouth of Reka Vostochnaya Kambal' nitsa, 5 miles SSW of Ostrov Korga, consists of crumbling cliffs, 40m high, which are of a darker color than those farther N.

Anchorage can be obtained by small vessels with local knowledge, sheltered from all winds, close within the mouth of the river, in a depth of 3m.

Mys Rybnyy (68°06'N., 46°32'E.) is a steep cliff, 20m high, located on the N side of the entrance of a river of the same name.

Shoals, with depths of 0.8 and 2.5m, lie 4.5 miles SE and 3 miles NE, respectively, of Mys Rybnyy.

Mys Mikulkin (67°49'N., 46°41'E.), 18 miles S of Mys Rybnyy, is low and formed of dark gray slate with streaks of mica. Above and below-water rocks fringe the point and extend up to more than 0.5 mile offshore. A light is shown from a structure standing on the point. A radiobeacon is situated at the light. Shoals, with a depth of 9.1m, lie 4 miles ENE and 2.5 miles SE of the light. Tide rips occur over these shoals during the S tidal current.

Cheshskaya Guba

3.3 This large bay is entered between Mys Mikulkin and Mys Barmin, 31 miles ESE, and recedes 60 miles S. Extensive banks and several off-lying shoals border the shores of Cheshskaya Guba, except near the entrance points.

Numerous rivers discharge along the shores, and some of the larger ones, which are entered along the S shore of the bay, are navigable by small vessels. However, navigation through the poorly charted S part of Cheshskaya Guba and the approaches to the rivers requires reliable local knowledge.

Winds—Weather.—Along the outer coasts, fog occurs during more than half of the days in summer. There is con-

siderably less fog in winter. The period from December to March has the least fog. Within Cheshskaya Guba, fog is rather infrequent, and usually covers the bay only as far S as the parallel of Mys Barmin.

Ice.—Cheshskaya Guba is never completely icebound. Ice conditions in the bay are variable, and in favorable conditions, the greater part of the bay is sometimes ice-free for long periods. In the S part of the bay, ice forms along the shore in November. The ice in the bay is not thick, but it is hummocky, especially close inshore over the shoal parts. Ice in the bay begins to melt in May, but due to the N and NE winds then prevalent, the bay does not usually become ice-free until the end of June.

Tides—Currents.—The flood current enters Cheshskaya Guba from NW and NE. One branch runs W and S along the N and W shores, respectively, while another branch runs S along the E shore towards the mouth of Reka Pesha, in the SE corner of the bay, and then W.

A current sets NE and divides off Mys Barmin, the greater part setting NW at a rate of 0.2 knot and the other part setting into Indigskaya Guba and toward **Mys Svyatoy Nos** (67°54'N., 48°36'E.), its NE entrance point.

Depths—Limitations.—General depths through the middle of the N part of the bay are ample, but along the W and E sides there are many shoals. The S half of Cheshskaya Guba has not been thoroughly examined, but dangers are suspected here.

From a depth of 55m in the entrance, the depths shoal gradually to about 44m in the central part of the bay. The 10m curve follows the general trend of the shore, but lies at varying distances offshore. It lies 7 to 12 miles from the W shore, 15 miles from the S shore, and about 5 miles from the E shore, but narrows rapidly as it approaches a point 5.2 miles SW of Mys Barmin.

The only steep-to shore is located between Mys Mikulkin and the mouth of Reka Zhemchuzhnaya, 8 miles W. Here the 10m curve lies 0.2 mile to 1.5 miles offshore. A detached shoal patch, about 10 miles in extent and with depths of 4.3 to 7.6m, lies with its NE extremity located 4.2 miles SSW of Mys Mikulkin. Another detached shoal patch, with a least depth of 5m and about 4 miles in extent, lies with its NE extremity located 7 miles S of Mys Mikulkin.

Cheskaya Guba—North and West Shores

3.4 Above-water and submerged rocks extend up to 0.5 mile from the N shore of the bay for a distance of 4 miles W of Mys Mikulkin. Farther W, the shore is sandy.

A 4.8m shoal lies 9 miles S of Mys Mikulkin. Another shoal, lying between 4 and 16 miles SW of the point, has a least depth of 4.3m near its center.

The E entrance point of **Reka Zhemchuzhnaya** (67°49'N., 46°21'E.) is low and sloping, but the W entrance point is 18m high and steep. Between the mouth of this river and that of a river 8 miles WSW, the shore rises to an elevation of 38m and consists of sandy cliffs, nearly vertical in places, interspersed by ravines which are covered with grass and stand out against the yellow sand on the cliffs.

Between the mouth of **Reka Gubistaya** (67°41'N., 45°20'E.) and Mys Zap Ludovatyy Nos, 7 miles S, there are steep cliffs which gradually become lower toward the point. The shore continues to be steep and up to 9m high for a farther 8 miles SW.

Between Mys Zap Ludovatyy Nos and Mys Nyagrinskiy Nos, 7 miles SSE, the W shore of Cheshskaya Guba recedes to form a bay at the head of which is the mouth of **Reka Chesha** (67°20'N., 44°54'E.).

Cheskaya Guba—South Shore

3.5 From Reka Vizhas, at the head of Cheshskaya Guba, the S shore trends very irregularly E for 36 miles to the mouth of Reka Pesha. Between the mouths of these rivers, a drying shore bank extends 0.2 to 2 miles from the coast which is generally low and sandy.

Reka Vizhas (66°50'N., 46°42'E.), with a depth of 1.8m off its entrance, can only be entered by day and in calm weather. Both riverbanks are sandy. The W bank rises to a height of 3.7m and the E bank is slightly lower. The river usually freezes in the middle of October and opens in the middle of May. The river is an outlet for a lake located 70 miles inland.

Mys Omskiy (66°52'N., 46°30'E.), 17m high, is steep and sandy. Several huts are situated on the point. A light is shown from Mys Omskiy and a beacon, 15m high, also stands on the point.

The entrance of Reka Oma lies 2 miles ESE of Mys Omskiy. The E entrance point is low and steep. There are depths of 3.4 to 4m over the bar at its mouth. At HW, the navigable depths within the river, as far as a village about 18 miles upstream, are 6 to 7.3m. Beacons are placed on the banks of the river at the beginning of the navigational season and are easily distinguished. The tidal currents in Reka Oma are very strong. The flood current runs for 3 to 4 hours and at springs is accompanied by a bore.

Reka Pesha (66°55'N., 47°27'E.), the largest river draining into Cheshskaya Guba, is entered 58 miles SSE of Mys Mikulkin. This river is tidal for about 27 miles from its entrance, which is about 0.8 mile wide. On the E side of the river, the land is low and slopes gently to the sea. On the W side, the land rises to heights of 18 to 22m and then falls vertically to the sea.

Sand shoals, lying off the entrance, dry for a distance of 2 to 3 miles seaward, and shifting sand bars lie in the entrance. During stormy weather, the sea breaks heavily over them. Reka Pesha usually freezes in the latter part of October and is open again in the middle of May.

Depths on the entrance bar at LW are 1.2 to 1.5m. Close within the bar, and then up to a settlement about 26 miles upstream, the depths in the winding channel are 3.7 to 5.5m. Beyond the settlement, the depths decrease sharply.

Tidal currents in the river at times attain a velocity of 3 knots. Reliable local knowledge is required for entering the river. Upon entering at HW, vessels should anchor and proceed upstream during the ebb tide. Entry should be attempted only in daylight and during good weather.

A light is shown from the W side of the river mouth.

Cheskaya Guba—East Shore

3.6 The E shore trends generally S for 44 miles from **Mys Barmin** (67°38'N., 48°00'E.) to the entrance of Reka Pesha. Along this coast are many dangerous off-lying shoals, both known and suspected. Most of these shoals lie off the entrance of a shallow stream located 13 miles NNE of Reka Pesha. From **Mys Suvoynyy** (67°12'N., 47°43'E.), a drying shorebank, 1 to 2 miles wide, extends S and SSW to the entrance of Reka Pesha.

Mys Barmin (67°38'N., 48°00'E.), the common entrance point of Cheshskaya Guba and Indigskaya Guba, is marked by a light which is equipped with a radar reflector. Shoals,with depths of 8 and 7m, lie 3 miles N and 8.5 miles NNE, respectively, of Mys Barmin.

Anchorage.—Good anchorage is available in the middle of Cheshskaya Guba, 15 to 20 miles offshore, with a bottom of mostly sand. The anchorage is exposed to N winds, which raise a heavy sea. Vessels with local knowledge can also anchor off the entrances to the various rivers.

Indigskaya Guba

3.7 This bay is the coastal indentation lying between Mys Barmin and **Mys Svyatoy Nos** (67°54'N., 48°36'E.), 21 miles NE. A light, equipped with a radiobeacon, is shown from the latter point. The bay recedes 10 miles SE to the mouth of **Reka Indiga** (67°42'N., 48°45'E.), which has a course winding 85 miles from its source in an interior swamp area. Several other small streams discharge into the bay. The depths, in general, decrease gradually to the head of the bay, from depths of 14 to 18m in the entrance, the bottom being mostly sandy.

Winds—Weather.—Indigskaya Guba's severe climate and low air temperatures are a result of winds from the sea in summer, the strong, cold, and sustained winds in winter, great relative humidity throughout the year, and the late disappearance of ice in spring.

The fog in Indigskaya Guba occurs most often during the navigational season. Fog usually prevails here at night, and at times lasts from 2 to 5 days.

Ice.—Ice first appears on the shores of Indigskaya Guba early in November and becomes heavier and thicker sometimes in the latter half of December, but more often not until January. The ice becomes fast in February or March and breaks up in May.

When ice flows out of the bay, it presses in toward Mys Svyatoy Nos and piles up in hummocks, sometimes forming a belt of dense and heavy floes. During N or NW winds, the pressure is increased. The waters in the vicinity of Mys Svyatoy Nos must be regarded as dangerous in winter.

Tides—Currents.—Tidal currents off the middle of Indigskaya Guba entrance are more or less rotary, clockwise, and attain velocities at springs of 1.5 to 1.8 knots. Reka Indiga is tidal for a distance of 18 miles from its mouth. The tidal rise is about 1.5 to 2.1m. During strong winds, the rise is 2.7m. Ebb tidal currents in the river can attain a velocity of 5.2 knots.

Depths—Limitations.—Depths in the bay are shallow. Depths decrease gradually toward the mouth of the river from depths of 20m lying between Mys Barmin and Mys Svyatoy Nos.

The shores are fringed by rocks and shoals. Svyatonosskaya, a shoal with a depth of 3.6m, lies 4.4 miles SE of Mys Svyatoy Nos and is the most hazardous.

Reka Indiga, 104 miles long, is accessible at HW to vessels with drafts not exceeding 3.5m. The least depth in the channel is 1.8m.

Ostrov Timonets (67°45'N., 48°30'E.), from which a light is shown, is a small, dark gray, and rocky island. It lies in the middle of Indigskaya Guba 10 miles SSW of Mys Svyatoy Nos and 5 miles offshore. Fringing reefs extend about 0.5 mile N from the island. Shoal patches, with depths of 7.9 and 7m, lie about 11 miles WSW and 7 miles W, respectively, of Ostrov Timonets. No. 1 Lighted Buoy, the outer sea buoy, is moored 2.5 miles SSE of Ostrov Timonets and marks the entrance to the channel leading across the bar.

The S shore of Indigskaya Guba between Mys Barmin and Mys Chaichiy, 8 miles E, is low and sandy. Two small rivers, which discharge into the bight formed between these points, are navigable only by small craft.

Mys Chaichiy, formed of slate, is 8.8m high. A bank, with a depth of 9.2m near its outer end, extends 3 miles NW from this point.

Between Mys Chaichiy and the entrance of Reka Indiga, 8.5 miles ENE, the shore is 23 to 31m high and formed of clay and sand. A river discharges into the bay 5.5 miles E of Mys Chaichiy.

3.8 The E shore of Indigskaya Guba, between Mys Svyatoy Nos and the mouth of a river 7.5 miles SSE, is sandy and rises gradually. Depths at a distance of 90m offshore are 3.7 to 5.9m, over a sandy bottom. The river is navigable by small craft at HW.

A detached shoal, with a least depth of 2.3m (1949), lies 4.5 miles SW of Mys Svyatoy Nos.

The shore between the river mouth and Mys Popova, 5 miles S, rises steeply to heights of 26 to 30m with strata of a light color stone in almost vertical stripes. Several buildings, including a hydrometeorological station, stand on the end of a spit which extends 0.8 mile S from Mys Popova.

Anchorage.—During E winds, vessels can obtain anchorage, in a depth of 11m, about 2 miles SE of Ostrov Timonets. Anchorage, sheltered from all winds, may also be obtained 1.2 miles upstream of the mouth of Reka Indiga, in depths of 5.5 to 9.2m, mud.

Caution.—Indigskaya Guba has not been thoroughly examined and the soundings are incomplete. Vessels should approach the shore with great care.

A local magnetic anomaly is reported to exist in the vicinity of Mys Svyatoy Nos.

Ostrov Kolguyev

3.9 Ostrov Kolguyev (68°42'N., 48°40'E.) lies 47 miles N of Mys Svyatoy Nos. From seaward it appears as a flat

elevation, in the middle of which gently sloping hills attain heights of 71 to 133m. These hills are reported to be visible at times from a distance of about 40 miles.

The island surface consists of swampy tundra intersected by ravines, and is devoid of trees. The mouths of the rivers are mostly shallow and, during winds from seaward, they become blocked by sand and gravel. Natural landmarks are few, but there are several lighted aids.

Winds—Weather.—The climate of the island has been classified as Arctic Maritime. Winters are long, but not extremely cold. The Gulf Stream keeps the Barents Sea clear of ice much longer than areas to the E, so that the lowest temperatures at Ostrov Kolguyev are delayed until March.

In winter, the island lies in a region of low pressure, while in summer, when the mainland is more intensely heated, pressure over the sea is high. From September through March, SW winds prevail, while NW and S winds are rather frequent in autumn. East winds become less frequent in autumn. During the very coldest period, W, SW, and S winds predominate, but with the approach of spring they become E and N. In summer (July to mid-September), the winds are NW, N, and E. The strongest winds are observed in winter. Summer winds are usually light. Stronger winds often bring snow squalls and snow storms.

Fog in the vicinity of Ostrov Kolguyev occurs most frequently in summer, when more than half of the days are foggy. Fogs are more prevalent during S, NE, and E, winds. The least incidence of fog occurs during NW and N winds.

Ice.—Ice, driven by wind, usually appears in late October or early November. In some years, there has been no ice in the vicinity of Ostrov Kolguyev in June, but in July, ice will generally be met N and S of the island, and sometimes at a considerable distance W of it.

Tides—Currents.—Tidal currents are strong off the seaward side of**Koshki Ploskiye** (68°41'N., 49°37'E.), which is steep-to. The N current attains a velocity of 3 knots and the S current attains a velocity of 2.5 knots.

Aspect.—The N coast, which is 24 to 40m high, has a large number of landslide formations. Coastal bluffs and projections are seen in only a few low, narrow points.

Kolguyevskiy Severnyy Light (69°30'N., 49°04'E.) is shown at the N end of the island. A disused light tower, at which a radiobeacon is situated, stands 1.2 miles ENE of the light.

The E coast of Ostrov Kolguyev is fronted by a long sand spit, which is separated from the mainland by numerous shallow channels and reported to lie with its seaward edge located up to 7 miles offshore. Small streams discharge along the mainland coast.

Kolguyevskiy Vostochnyy Light (69°05'N., 50°17'E.) is shown from the E extremity of the island. A radiobeacon is situated at the light.

The S coast of Ostrov Kolguyev is 9 to 15m high with a large number of ravines and landslides. Continuous action by the sea has eroded the coast and formed narrow off-lying sand spits which front the entire S side of the island.

Koshki Ploskiye is a low spit which extends SE, then generally E, from the SW end of Ostrov Kolguyev. Its E end lies 8 miles off the S coast of the island. Part of the spit, which lies W of the S extremity of the island, is covered with tundra and flanked on the inshore side by a strip of sand, then for a distance of 21 miles to its E end, the spit becomes entirely sandy and so low that much of it is submerged. In several places, the spit is broken by narrow and shallow channels. A light is shown from a structure standing at the E end of Koshki Ploskiye.

Caution.—Abnormal refraction of the atmosphere in this area often makes celestial navigation unreliable. Refraction also accounts for objects being seen for far greater distances than usual.

Peschano-Ozerskoye Offshore Oil and Gas Field extends seaward from the E side of Ostrov Kolguyev (69°05'N., 49°10'E.).

3.10 **Bugrino** (68°46'N., 49°14'E.), situated near the mouth of a river on the S side of the island, is the principal settlement in this region. The white building of a former chapel is conspicuous from S. Landing at Bugrino is difficult at LW due to a drying bank which fronts the mouth of the river. The recommended landing is near an isolated building standing SW of the settlement.

Aspect.—Range lights are situated on the comparatively high coast, 12.5 miles ENE of the S extremity of the island. These lights, bearing 295°, indicate the approach to an anchorage area lying SW of Bugrino.

Anchorage.—Vessels can anchor almost anywhere in the vicinity of Ostrov Kolguyev, depending on the direction of the wind. Anchorage, sheltered from W winds, can be taken 1.6 miles SW of Bugrino at the intersection of the Bugrino range line, mentioned above, with the settlement range beacons, in a depth of 5.5m, mud. Local knowledge is required.

Vessels can anchor 4 miles off the NW and W coasts, in depths of 27 to 33m, sand and mud. Small vessels, with drafts not exceeding 3.7m, can find shelter from strong NE winds 0.8 mile off the W coast.

Caution.—An obstruction lies 1.8 miles S of the settlement.

Timanskiy Bereg

3.11 Timanskiy Bereg extends from Mys Svyatoy Nos to Mys Russkiy Zavorot, the W entrance point of Pechorskaya Guba, 146 miles ENE. It is sandy, level, and not more than 9m high. Rivers discharging along the coast are shallow.

Winds—Weather.—Prevailing winds along this coast are NE from June through August, although, NW winds are also quite frequent in August. In September and October, SW winds predominate, but occasionally the winds are from the N and SE quadrants. From November to March, the winds are primarily SW, and in April are N and NE. In May, the wind is from all quadrants, although most frequently they are NE.

Fog, which is extremely dense along this coast, occurs often in summer and appears suddenly. The month in which fog is most frequent is June.

Tides—Currents.—Tidal currents along Timanskiy Bereg attain lesser velocities in the SW part than in the NE

part. The currents are affected by wind. The currents may attain rates of 1.5 to 2 knots in the SW part and 3 to 3.5 knots in the NE part.

Depths—Limitations.—General depths along Timanskiy Bereg increase gradually to 22m from a depth of 3.7m at a distance of about 100m offshore. The bottom is fine gray sand, except off Mys Svyatoy Nos, where it is rocky. A coastal bank, with depths of less than 18m, extends 9.5 miles N from the NW side of Ostrov Sengeyskiy, which lies 57 miles ENE of Mys Svyatoy Nos.

3.12 Ostrov Sengeyskiy (68°27'N., 50°58'E.), the only island and high land along this section of coast, lies nearly midway between the terminal points and is easily identified. A light is shown from the NW side of the island.

Anchorage can be obtained by vessels with local knowledge 2 to 3 miles off the N coast of Ostrov Sengeyskiy, in depths of 9 to 18m.

Guba Kolokolkova (68°34'N., 52°13'E.) is a shallow basin, with a narrow entrance fronted by a bar, lying 16 miles ENE of Ostrov Sengeyskiy. The bay is accessible to vessels with drafts of up to 2m at high tide. The channel changes slightly each year.

Tides—Currents.—Tidal currents attain velocities of 2.5 to 3 knots. It is inadvisable to enter the basin before half-tide.

Depths—Limitations.—A drying and steep-to sand bank lies on the SW side of the fairway, 0.3 mile SW of Mys Kolokolkovskiy Nos, the E entrance point. The area extending 1 mile SW of **Mys Tonkiy Nos** (68°34'N., 52°14'E.), the W entrance point, is covered with breakers during onshore winds.

Anchorage.—An anchorage buoy is moored at the entrance to the bay, 1.4 miles N of Mys Tonkiy Nos, in depths of 6 to 7m. Small vessels with local knowledge can enter Kolokolkova Guba and find secure anchorage in the E part of the estuary, in a depth of 9m, mud.

Caution.—A stranded wreck lies on the W side of the entrance to Kolokolkova Guba, about 1.5 miles SW of Mys Kolokolkovskiy Nos.

3.13 Reka Peschanka (68°48'N., 53°02'E.) enters the sea 22 miles NE of Mys Kolokolkovskiy Nos. Its steep W bank is prominent from seaward, being black, with yellow sand in the ravines. A light is shown from the SW side of the mouth of the river.

Khodovarikha Light (68°56'N., 53°46'E.), equipped with a radiobeacon, is shown from a structure standing on a hill, 18 miles NE of the river entrance.

Off-lying shoals, with depths of 18 and 14.4m, lie 31 miles WNW and 22 miles NW, respectively, of the light.

Russkiy Zavorot Sredniy Light is shown from a structure standing 6.5 miles ENE of Khodovarikha Light. It was reported (1960) that this light structure is not visible on radar until about 6 miles distant.

Mys Russkiy Zavorot (68°59'N., 54°33'E.), at the NE extremity of Timanskiy Bereg, is also the E extremity of a cape enclosing the NW side of Pechorskaya Guba. A light, equipped with a radar reflector, is shown from the E end of the point. A racon is situated at the light.

Pechorskaya Guba

3.14 Pechorskaya Gubais the extensive bay lying between Mys Russkiy Zavorot and Mys Bizekova (Mys Bizyukova), the W extremity of Ostrov Pesyakov 60 miles ESE. The inner part of the bay is the estuary of Reka Pechora, the entrance of which lies 41 miles S of Mys Russkiy Zavorot. Several coves indent the irregular shores of Pechorskaya Guba.

Gulyayevskiye Koshki (68°54'N., 55°32'E.), a chain of low-lying islands and sandbars, extends across the entrance of the bay. At times, these dangers are inundated and their heights of 0.6 to 2.1m make them visible for only a short distance. They are numbered consecutively from Mys Russkiy Zavorot to Mys Bizekova. Two navigable channels lead through these dangers and those in the inner bay to the entrance of Reka Pechora. The W channel, which is generally used, is marked by buoys and lighted ranges. A lighted sea buoy (68°54'N., 55°49'E.) is moored about 22 miles WNW of the W extremity of Koshki No. IX island.

The shores of Pechorskaya Guba are mostly low, sandy, and swampy. Numerous streams discharge into the bay and, except for Reka Pechora, they are all shallow and accessible only to small craft at high tide.

Severo-Gulyayeskaya Oil Field is located in the SW part of Otel Pakhtusova in the NE approach to Perchorskaya Guba (68°38'N., 54°44'E.).

3.15 Gora Pitkov Kamen (68°29'N., 56°03'E.), a ridge located 9.5 miles inland from the S shore of the bay, rises to an elevation of 164m, about 44 miles SE of Mys Russkiy Zavorot. This is the most prominent natural landmark available for vessels approaching Pechorskaya Guba. This ridge may be seen in clear weather from a distance of 25 miles. Numerous lighted and unlighted navigational aids are situated in the bay and Reka Pechora.

A large conspicuous building, with several radio masts, stands about 4 miles SW of **Mys Gorelka** (68°38'N., 56°03'E.).

Reka Pechora, on which the commercial port of Naryan Mar is situated, is the most important river included in this sector. Though navigable from its mouth nearly to its source, a distance of about 980 miles, traffic is restricted because of the short period between the breaking up of the ice, with the ensuing floods, and the setting in of the long winter. The delta of the river, which begins about 110 miles from its mouth, terminates in 20 separate streams, only the largest of which will be described.

Winds—Weather.—In the summer months, July and August, NE winds prevail. During autumn, September through the first half of October, the winds are SW. In winter, the middle of October through March, the winds are S. In spring, April to June, the winds are SW. Summer storms are rare, but are violent and can cause considerable damage.

Pechorskaya Guba lies within the Arctic Circle. The average annual air temperature is between 3° and 5°C. Temperature changes in the bay area are often abrupt. After damp, warm days, the wind may become NE and bring snow. Within Reka Pechora, the average annual temperature is 3.3°C.

The relative humidity in the bay area is very high. Fog is prevalent in Pechorskaya Guba and at times may appear suddenly. June is the foggiest month. Along Reka Pechora, fog is considerably less frequent than elsewhere in the Barents Sea. Most of the river fog occurs in August and October. Throughout this region, cloudy and overcast days are more prevalent than clear days.

Ice.—Floating aids are removed during the ice season. The estuary begins to freeze towards the end of October, but occasionally ice forms at the beginning of the month. The estuary becomes completely covered with fast ice, and attains its maximum thickness of 1.2m in spring. The edge of the fast ice usually reaches Gulyayevskiye Koshki in April.

Reka Pechora is usually frozen, as far as 9 miles below Naryan Mar, by October 28 and is usually clear of ice by May 29. The clearing of ice from the bay depends mainly on the wind direction. Southeasterly and S winds drive out the ice, but this does not take place until at least two weeks after the ice in Reka Pechora off Naryan Mar has cleared. The ice usually then clears rapidly. This final clearance generally occurs at the end of June and the beginning of July.

Tides—Currents.—The flood current runs SW into Pechorskaya Guba and the ebb runs NE. In the N part of the entrance channel, between **Gulyayevskiye Koshki No. III** (68°54'N., 55°32'E.) and abreast **Aleksandrovskaya Mel** (68°46'N., 55°48'E.), the flood current runs SW and the ebb current runs NE, attaining velocities of up to 2 knots.

Tidal currents at Reka Pechora bar and in the river entrance set in the direction of the fairway. The ebb currents are the strongest and attain velocities of 1 knot on the bar, 1.5 knots at the river mouth abreast Mys Bolvanskiy Nos, and 0.8 knot abreast Mys Sokolka, 7.5 miles within the entrance.

Caution.—Abnormal refraction of the atmosphere is frequent in Pechorskaya Guba and occurs mostly during slight S winds. This refraction produces a mirage effect which distorts the coastline and makes navigation difficult.

3.16 Pechorskaya Guba is very shallow throughout most of its area and encumbered with known and unknown dangers. Large sections of the bay have not been sounded or examined and only the two navigation channels and their adjacent shoals have been thoroughly surveyed. The W approach channel is the only practicable one to use. This channel has a least depth of 5m.

Pilotage.—Pilotage is compulsory. Vessels proceeding to the port of Naryan Mar should order a pilot through the harbormaster 24 hours in advance and confirm their ETA not later than 6 hours before arrival.

Anchorage.—During gales from between N and W, vessels can obtain sheltered anchorage, off the SE side of Aleksandrovskaya Mel, in depths of 5 to 7m.

There are no anchorages in Pechorskaya Guba which are sheltered from all winds and vessels, compelled to anchor, should contact the harbormaster.

3.17 Nar'yan-Mar (67°39'N., 53°00'E.), a commercial port, specializing in timber exports, is situated on the SE bank of Reka Pechora, 52 miles upstream from Mys Bolvanskiy Nos, the E entrance point. The port is only open during the navigation season (May to November). Port Nar'yan-Mar is the only port open to visits by foreign vessels in the SE part of the Barents Sea.

Ice.—The port is only open for navigation for a period of 120 to 130 days a year due to ice which forms in the river around the latter part of October and remains until about the end of June.

Tides—Currents.—The maximum tidal rise at the port is 1.8m. At the Reka Pechora Bar the maximum tidal rise is 0.7m at springs and 0.3m at neaps.

Depths—Limitations.—Entrance to the port is through the fairway leading from Lotsmanskiy Lighted Buoy (68°29'45"N, 54°33'04"E) across the Reka Pechora Bar, which is comprised of the extensive shoal water extending N from Mys Bolvanskiy Nos. Three channels dredged across the bar are Receiving Channel, Bar Channel, and Povorotny Channel. Povorotny Channel serves as a turning point between Receiving Channel and Bar Channel.

Vessels with drafts as deep as 4.9m can cross the bar at HW only. During periods of dense fog, heavy rain or snow, winds greater than Force 6, or the absence of navigational marks, it is prohibited to cross the bar.

As soon as ice is observed in Reka Pechora and the inlet, entry into the port must have the approval of the harbormaster.

Although depths at the timber piers are as deep as 6.5m alongside, vessels are restricted to a maximum draft of 4.5m to enter the port. However, the port authority can change this restriction at the beginning of the navigation season each year so it is best to check with them before attempting to enter the port. The maximum permitted length of a vessel is 125m. See the table titled **Nar'yan-Mar—Berth Information** for the listed berths and their details.

Pilotage.—Pilotage is compulsory and available 24 hours during the navigation season. Pilots board within an area with a radius of 1.5 miles centered on Lotsmanskiy Lighted Buoy.

In the event of bad weather (winds greater than force 6) pilots will embark in the Srednevskie Islands area.

Pilots shall be requested 24 hours prior to arrival at the Lotsmanskiy Lighted Buoy with a more precise ETA advised not later than 4 hours before arrival.

Pilots are also required and should be requested not less than 2 hours prior to shifting berth or departing port.

Regulations.—Vessels should send their ETA at the pilot boarding position 72 hours, 48 hours, and 24 hours in advance, with final confirmation sent 6 hours before arrival.

Tugs are compulsory and can be requested from the Port Duty Dispatcher no later than 3 hours before they are needed.

A speed limit of 6 knots is in effect for the entire entry passage leading from Lotsmanskiy Lighted Buoy to the port, except for the area between the Zekhrebetny Channel and Srednevesky Channel, where speed can be increased to as much as 12 knots.

Vessels navigating in the port limits should maintain a continuous listening watch on VHF channel 16.

Signals.—Storm warnings and a 24-hour forecast for Pechora Inlet are broadcast over VHF.

Nar'yan-Mar—Berth Information						
Berth	Length	Depth	Maximum Vessel			Remarks
			LOA	Draft	Beam	
Nar'yan-Mar Commercial Sea Port Terminal						
No. 1	100m	5.5m	114m	3.9m	16.0m	Timber, coal, minerals, construction cargo and commodities, containers, general cargo, and ro-ro.
No. 2	100m	5.5m	114m	3.9m	16.0m	
No. 3	100m	5.5m	114m	3.9m	16.0m	
No. 4	100m	6.0m	114m	3.9m	16.0m	
Nenets Terminal						
No. 1	6m	—	—	—	—	Crude oil.
No. 2	5m	—	—	—	—	Crude oil.
No. 3	11m	—	—	—	—	Crude oil.

Contact Information.—See the table titled **Nar'yan-Mar—Contact Information**

Nar'yan-Mar—Contact Information	
Port Control	
Call sign	Nar'yan-Mar Radio 2
VHF	VHF channels 9, 14, and 16
Telephone	7-818-534-2925
Facsimile	7-818-534-2395
Hours	24 hours
Pilots	
VHF	VHF channel 16
Telephone	7-818-534-2157
Facsimile	7-818-534-6729
E-mail	naormp@rambler.ru

Pechorskaya Guba to Proliv Yugorskiy Shar

3.18 The mainland coast from abreast **Mys Bizekova** (68°42'N., 57°14'E.) to the SW entrance of Proliv Yugorskiy Shar, 84 miles NE, trends ENE for 45 miles to the extremity of **Mys Medynskiy Zavorot** (68°59'N., 59°12'E.) and S for 34 miles to the head of Khaypudyrskaya Guba. It then trends N for 23 miles to **Mys Sin'kin Nos** (68°43'N., 59°53'E.) and NE for 70 miles to the entrance of the strait. This stretch of coast is removed from the normal navigation routes used by vessels passing through the Barents Sea, and very few vessels have approached the land. The coast has not been closely examined.

Ostrov Matveyev (69°28'N., 58°32'E.) is the NW and most conspicuous of a chain of low, rocky islands which extends 37 miles NW from a position 5 miles ENE of Mys Medynskiy Zavorot. A reef, with a depth of 9.2m, extends about 0.5 mile NW from the island and numerous above and below-water rocks fringe the other sides. A light is shown from the NW extremity of the island and a radiobeacon is situated at the light.

The chain, which lies in the approach to Proliv Yugorskiy Shar, extends 37 miles in a NW/SE direction between Ostrov Matveyev and Ostrov Malyy Zelents, the latter being a small island lying 5 miles ENE of the extremity of Mys Medynskiy Zavorot. Included between these two islands are five other islands and their adjacent dangers.

A fairway channel, 1 mile wide, leads S of Ostrov Matveyev. It has a least depth of 11.9m, but is not recommended. Vessels can anchor anywhere off Ostrov Matveyev, clear of the fringing dangers.

A rocky shoal, with a least depth of 0.4m, lies 2.5 miles SSE of Ostrov Matveyev, and another shoal, with a depth of 9.2m, lies 2.6 miles S of the island.

Varandey Fixed Offshore Ice Resistant Offloading Terminal (FOIROT) (69°03.2'N., 58°09.1'E.), an oil platform operated by Lukoil, is connected to the shore 12 miles to the S by two submerged oil pipelines. The terminal handles crude oil and can accommodate ice-class vessels up to 72,722 dwt with a maximum draft of 14.1m. Anchoring and trawling are prohibited within 500m of either side of the pipelines. Navigation is prohibited in a circular safety zone extending a radius of about 0.5 mile around the terminal. The recommended approach track leads on a course of 135° to the terminal.

Regulations.—Vessels should contact the SMIRLB Operator on VHF when 22 miles out from the Terminal. Vessels proceeding to the inner harbor or the terminal should contact the harbormaster on VHF when at least 5 miles out. Vessels should maintain a continuous listening watch on VHF channel 16 and any incidents or accidents related to navigation in the vicinity should be reported to the harbormaster on VHF channel 14.

Prirazlomnaya Offshore Ice-resistant Stationary Platform

Contact Information.—See the table titled **Varandey Terminal—Contact Information**.

Varandey Terminal—Contact Information	
Harbormaster	
Call sign	Varandey Radio 5
VHF	VHF channels 14 and 16
Port Dispatcher	
Call sign	Radio 11
VHF	VHF channels 11 and 16
SMIRLB Operator	
Call sign	Varandey Traffic
VHF	VHF channels 12 and 16
Dispatcher of Reservoir Storages	
Call sign	Varandey Dispatcher
VHF	VHF channels 16 and 67
Dispatcher of Liquidation of Oil Spills Service	
Call sign	Morspas
VHF	VHF channels 9 and 16
Dispatcher of Hydro-Mechanization Works Area	
Call sign	SMP Bereg
VHF	VHF channels 16 and 17
Cargo Operations	
Call sign	Prichal
VHF	VHF channels 15 and 16

Further to the N, the **Prirazlomnoye Offshore Ice-resistant Stationary Platform** (69°15'57"N., 57°17'17"E.) stands approximately 32 miles N of Nenets Autonomous Okrug in depths of 19 to 20m. A safety zone with a radius of 3 miles lies centered on the rig platform. Vessels should remain outside this safety zone. However, if there is a need for passage through the rig safety zone, permission must be obtained from the operator of the drilling platform before entering this safety zone. There will be a frequent shuttle tanker service between the platform and Murmansk, about 750 miles ESE. The Prirazlomnaya Offshore Platform is also equipped with AIS.

3.19 Ostrov Dolgiy (69°18'N., 59°00'E.), the largest island of the chain, lies 7.5 miles SE of the S extremity of Ostrov Matveyev. Several rocky points, 7m high, are located along the W coast of the island and are fronted by above-water rocks. The E coast of the island is sloping, not more than 6m high, and composed of sand covered in places by grass or black moss. Three small rocky islets lie close offshore.

A shoal spit, the outer extremity of which has a depth of 0.3m, extends 5 miles NW from the N end of Ostrov Dolgiy.

Ostrov Golets (69°23'N., 58°40'E.), small, low, and rocky, lies on the W side of the spit 2 miles WSW of the N end of Ostrov Dolgiy. A passage, about 1 mile wide and having a least depth of 11.8m, is reported to lie between the N end of the spit and the above and below-water rocks fringing Ostrov Matveyev. Anchorage may be obtained in the passage leading between the islands.

Ostrov Bol'shoy Zelenets, small and low, lies 4 miles SSE of the S extremity of Ostrov Dolgiy. A number of above-water rocks lie up to 1 mile off the NW side of the island.

Ostrov Malyy Zelenets (69°00'N., 59°31'E.), a small and low island, lies 1 mile S of the SE extremity of Ostrov Bol'shoy Zelenets. A light is shown from the S end of this island.

Mys Perevoznyy Nos (68°41'N., 59°24'E.), located 18 miles S of Mys Medynskiy Zavorot, is 42m high and forms the W entrance point of Guba Khaypudyrskaya. The coast between these two points is fronted by an extensive drying shore bank, which extends up to 4 miles seaward, and is intersected by the outlets of several small streams.

Guba Khaypudyrskaya (68°41'N., 59°26'E.) is entered between Mys Perevoznyy Nos and Mys Sin'Kin Nos, an 8.5m high point located 10 miles E. Several rocks lie close off the latter point.

The bay recedes S for 22 miles with many shallow streams discharging along its shore. Depths decrease toward the head of the bay from 8 to 15m in the entrance. Shoals, extending from both sides, reduce the fairway, which has depths of 3.7 to 5.5m, to a width of about 0.1 mile. Drying banks extend up to 2 miles seaward from the S shore.

3.20 Mys Chernyy Nos (68°54'N., 60°52'E.) is low and bordered by drying shoals. Reka Korotaikha, a shallow river with a low-lying islet close within its entrance, flows between Mys Chernyy Nos and Labagay, a 9.2m high round sand hill, 1 mile E. A shore bank extends about 4 miles from Labagay, but tapers to a width of 2.5 miles towards Mys Bel'kov Nos, 12.5 miles NNW. Several small rivers, with islets in their entrances, discharge into the shallow bay formed between Reka Korotaikha and Mys Bel'kov Nos.

Anchorage can be taken, in a depth of 6m, about 10 miles offshore, abreast the mouth of Reka Korotaikha. However, this position is not secure because of its exposure to winds and the ice which is often carried in from the Kara Sea.

3.21 Mys Bel'kovskiy Nos (69°06'N., 60°47'E.) is the extremity of a low peninsula which projects 5 miles S from the coast. The E side of the peninsula is marshy while the seaward side is sandy and covered with pebbles. Numerous below-water rocks fringe the point. Mys Bel'kov Nos Light is shown from a structure standing 3 miles NW of the S extremity of Mys Bel'kovskiy Nos.

The coast between Mys Bel'kovskiy Nos and Mys Belyy Nos, on the SE side of the entrance to Proliv Yugorskiy Shar, 33 miles NNW, consists in the S part of steep cliffs, 9m high. Farther N, the coast slopes gradually and is rocky. All of this stretch of coast is fringed by above and below-water rocks and many small streams discharge into the sea along it.

The 20m curve follows the general coastal trend towards Mys Belyy Nos and, in most places, lies 1 to 2.8 miles offshore. The curve approaches some of the smaller salient points, particularly Mys Pirkov, 2 miles S of Mys Belyy Nos, where it nearly reaches the shore.

3.22 Ostrov Parus Luda (69°26'N., 60°16'E.), a small islet located nearly 1 mile offshore and 10 miles S of Mys Belyy Nos, is useful for position fixing by vessels approaching Proliv Yugorskiy Shar from S.

Mys Belyy Nos (69°36'N., 60°11'E.), a conspicuous point, lies on the SE side of the Barents Sea entrance to Proliv Yugorskiy Shar, 2 miles N of Mys Pirkov. Two prominent islets lie close off this point. A group of rocky islets, surrounded by sunken rocks, lies nearly 1 mile NNW of Mys Belyy Nos. This group lies on a shoal, with depths of less than 5.5m, which extends about 0.8 mile further SW.

Mys Greben (69°39'N., 59°59'E.), the S extremity of Ostrov Vaygach, lies 5.5 miles NW of Mys Belyy Nos. An islet, several above-water rocks, and several sunken rocks lie on a bank which has depths of less than 5.5m and extends nearly 0.8 mile SSE from Mys Greben. A main light structure stands on the W side of Mys Greben. An auxiliary light may be shown from a structure standing 0.2 mile SSE of the main light structure. A polar station has been established on the point.

Proliv Yugorskiy Shar

3.23 Proliv Yugorskiy Shar (69°40'N., 60°05'E.), which separates Ostrov Vaygach from the mainland, is 25 miles long and trends in a general NE direction, connecting the Barents Sea with the Kara Sea. Its SW entrance lies between Mys Belyy Nos, on the mainland, and Mys Greben, on Ostrov Vaygach, 5.5 miles NW. Its NE entrance lies between Ostrov Sokoliy (69°50'N., 60°44'E.) on the mainland and **Mys Belyy** (69°54'N., 60°29'E.) on Ostrov Vaygach, 8 miles WNW.

The shores of the strait are steep on the Ostrov Vaygach side, but they slope more gradually on the mainland side. They are covered with tundra and along them are scattered lakes and ponds. Hills of rock or clay rise from the tundra in places.

Tides—Currents.—A surface current sets through Proliv Yugorskiy Shar from the Barents Sea to the Kara Sea at a rate of 0.2 to 0.5 knot.

The tidal currents in the strait are semidiurnal, with a mean spring range of about 0.6m and a mean neap range about 0.2m. The maximum rate of the tidal currents in the narrowest part of the strait is about 2.8 knots, but S of **Mys Peschanyy** (69°42'N., 60°26'E.), a rate of 3.5 knots has been observed. Tidal currents run along the directional orientation of the strait, which makes the direction of flow from the Barents Sea to the Kara Sea during ebb tide and the opposite direction during flood.

In the narrowest part of the strait, the NE tidal current reaches its greatest velocity 3 to 4 hours after HW. The SW tidal current reaches its greatest velocity about 2 to 3 hours before the next HW.

Currents caused by the wind sometimes completely interrupt the tidal and surface currents. During periods of fresh NE winds, a current frequently sets SW and attains a rate of 4.5 knots in the narrowest part of the strait. Currents usually set in the direction of the deeper part of the channel leading through the strait.

Countercurrents have been frequently observed near the shores. The water level in the strait is raised by E winds and lowered by W winds.

Depths—Limitations.—The depths in the strait are very irregular. Shallow banks extend considerable distances from some parts of the shore and there are several off-lying shoal patches. The fairway has a least depth of 12m and is marked by range beacons and spar buoys.

Aspect.—Vessels approaching Proliv Yugorskiy Shar from the W will, in clear weather, first sight the hills in the S part of Ostrov Vaygach from a distance of about 21 miles. The coast of the mainland will not be visible until such vessels have approached much closer. Mys Greben, which is visible at a distance of 7 or 8 miles, first appears as three separate rocks. Soon after sighting this point, the peninsula, which terminates SE in Mys D'yakonova (69°40'N., 60°12'E.), will be seen, appearing first as an island.

Mys Belyy Nos, located on the mainland, can be identified by three cairns standing on a small point close NE of it. From a distance, this small point appears to be an islet.

Landmarks near the N entrance of the strait include the mast standing at **Yushar Radio Station** (69°49'N., 60°46'E.), which can be seen from a distance of over 20 miles with good visibility, and the light structures situated in the N part of the strait. Gora Sylympa, a saddle-shaped hill, rises 4.5 miles ESE of **Mys Kamennyy** (69°43'N., 60°43'E.) and forms a conspicuous landmark for vessels approaching the entrance from NNE.

Pilotage.—Pilotage is compulsory in Proliv Yugorskiy Shar. In the early part of the navigation season, before ice conditions make passage through it difficult, pilots are available to conduct vessels through the strait.

The pilot boarding stations, best seen on the chart, are situated about 2 miles SW of Mys Greben (69°39'N., 59°59'E.) and 1 mile E of **Mys Kanin** (69°48'N., 60°34'E.). Icebreaker vessels, when present in the strait, will assume the duties of the pilot vessels.

Vessels should contact the pilots through the nearest coast radio station. Pilots can also be contacted on VHF channel 16.

Anchorage.—Vessels can anchor almost anywhere in the strait. In the middle of the strait, where the currents are occasionally strong, there is comparatively good holding ground. The bottom in the greater part of the strait is formed of sand and small stones, with only the latter being found in some places.

Bukhta Varneka (69°41'N., 60°05'E.) affords the most secure anchorage in the strait and its vicinity. It is sheltered from winds from SW through N to E, but S winds cause a swell. The NE arm is better sheltered and has depths of 4 to 9m, but its head is shallower than that of the SW arm. The bottom, course in the outer part of the bay, changes to mud toward its head.

Anchorage close SW of Mys Greben, in a depth of 16.5m, is usually taken while awaiting ice convoys through Proliv Yugorskiy Shar and areas to the E.

Caution.—Vessels can enter the strait from the Kara Sea without difficulty in clear weather. However, care should be taken to avoid the dangers lying NW of Ostrov Sokoliy.

Because of the strong and variable currents it is recommended that vessels do not attempt passage through Proliv Yugorskiy Shar during fog, poor visibility, or at night. Fog occurs most frequently with NE winds, but may be experienced during winds from other directions.

The spar buoys, which mark dangers lying adjacent to the fairway, may be out of position or missing because of ice, wind or currents.

Abnormal magnetic variations were reported to exist near Mys Greben (1937) and in the S entrance of Proliv Yugorskiy Shar (1942).

Proliv Yugorskiy Shar—South Side

3.24 Between Mys Belyy Nos and **Mys Khabarova** (69°40'N., 60°23'E.), 5.5 miles NE, the mainland side of Proliv Yugorskiy Shar is rather irregular, but has no large indentations. The S part of the entrance to Proliv Yugorskiy Shar should be navigated with great caution.

Khabarovo (69°39'N., 60°25'E.), a village of wooden huts and reindeer hide tents, stands 1 mile SE of Mys Khabarova. A small church and a large storage shed are conspicuous from seaward. A trading post is located at Khabarovo and the Yugoskiy Shar Polar Station is situated about 12 miles NNE of the village.

Aspect.—Range lights are situated on the S side of Proliv Yugorskiy Shar. The front light, equipped with a radar reflector, stands 2.2 miles E of Khabarovo and the rear light is situated 1 mile S of it. These lights, aligned astern, indicate the channel leading through the NE part of the strait.

Anchorage.—Anchorage is obtainable approximately 0.5 to 0.6 mile offshore, from position 69°39'36"N, 60°23'10"E, in depths of 10 to 12m, pebbles. This anchorage is not recommended when drift ice is present during periods of NE winds, when vessels should use Bukhta Varneka or toward the N shore of the strait between Mys Stvornyy and Mys Peschanyy.

Anchorage can also be obtained about 1 mile offshore from the polar station, in depths of 15m, sand and small stones.

3.25 **Ostrov Storozhevoy** (69°41'N., 60°37'E.), a low islet almost divided into two parts by a depression near its N end, lies 2.5 miles SW of Mys Kamennyy. Rocky patches, with least depths of 0.6 and 10.1m, lie 1 mile and 1.5 miles, respectively, W of this islet.

Between Mys Kamennyy and Mys Lakorzali, 5.5 miles N, a bank, with depths of less than 11m, extends from the coast on the E side of the strait.

Between Mys Lakorzali and **Mys Yarossel** (69°50'N., 60°47'E.), 2.5 miles NNE, a bank, with depths of less than 5.5m, extends up to about 0.8 mile offshore.

Ostrov Sokoliy (69°50'N., 60°44'E.), a small island, 24m high, and marked by light, lies on the above bank near its outer edge. A reef, partly above water, extends about 100m from the NW side of the island. A rocky patch, with a least depth of 4.5m, lies nearly 1 mile NNW of Ostrov Sokoliy.

Caution.—Due to several sunken dangers, the shore should not be approached within depths of less than 8m.

3.26 **Yushar Radio Station** (polar station) (69°49'N., 60°46'E.) is situated on the mainland coast, 0.5 mile SE of the S end of Ostrov Sokoliy. The radio mast of the station, an iron framework structure, is 75m high and forms a good landmark.

Anchorage may be obtained off the radio station, in depths of 8 to 13m, W of Ostrov Sokoliy.

Mys Yarossel is a hilly headland fringed by reefs on which the sea breaks. A light is shown from Mys Yarossel; an auxiliary light is shown nearby.

Proliv Yugorskiy Shar—North Side

3.27 Bukhta Varnekais entered between Mys Greben and **Mys D'yakonova** (69°40'N., 60°12'E.), 4.8 miles E. The latter point is a bluff headland located at the SE end of a high peninsula which is connected to Ostrov Vaygach by two isthmuses separated by a lake.

A shoal, with a least depth of 10.1m, lies 3 miles SW of Mys D'yakonova. A shoal, with a least depth of 3m near its E side, lies between 1 and 2.5 miles SW of the same point. A dangerous wreck, marked by buoys, lies on this shoal.

A 5.1m shoal patch lies about 1.2 miles W of Mys D'yakonova and is marked on its SW side by a buoy.

Vessels in Bukhta Varneka are more sheltered from drifting ice than in other parts of the strait as the current in the strait does not enter this bay. The bay usually remains clear of the Kara Sea ice that is driven through the strait by N winds. Ice driven into the strait from the Barents Sea by W winds is carried by the current through the middle of the strait. With SE and S winds, ice may drift into the bay, but the ice pressure is minimal. It has been reported that the bay freezes over earlier and is usually free of ice earlier than other parts of the strait.

The inner part of Bukhta Varneka is divided into two arms by a narrow peninsula, from the outer end of which a reef, partly above water, extends nearly 0.5 mile SE. Some buildings, along with a conspicuous tower, stand along the NE side of the E arm of the bay. Other buildings stand near the SE end of the peninsula which separates the two arms of the bay.

Anchorage.—The best anchorage in Proliv Yugorskiy Shar is in Bukhta Varneka, in depths of 8m, mud and stone, good holding ground. It is sheltered from winds from SW through N to E, but S winds cause a swell to enter the bay.

In the NE arm there is anchorage, in depths of 3.6 to 9.1m. This arm affords the better shelter, but its head is shallower than that of the other arm. A coarse sand bottom is found in the outer part of the bay, changing to mud toward its head.

3.28 The coast between Mys D'yakonova and Mys Sukhoy Nos, 6.5 miles ENE, is about 9m high, bold, and rugged. It is indented by several shallow bights and inlets.

Between Mys Stvornyy, located 1.2 miles ENE of Mys D'yakonova, and Mys Sukhoy Nos, a bank, with depths of less than 5.5m, fronts the shore and extends up to about 1.2 miles seaward.

Range beacons stand on the NW side of Proliv Yugorskiy Shar. The front beacon stands on Mys Stvornyy, 1.2 miles ENE of Mys D'yakonova, and the rear beacon stands 1 mile NE of it. These beacons, in line, indicate the channel leading through the S entrance of Proliv Yugorskiy Shar.

3.29 **Mys Sukhoy Nos** (69°43'N., 60°29'E.) consists of two rocky projections separated by a shallow bay having an entrance about 0.5 mile wide. A 2.4m shoal patch lies near the edge of the coastal bank, about 1 mile SW of the S projection. Depths of less than 1.8m lie within 0.5 mile of Mys Sukhoy Nos and a number of above-water rocks lie on the coastal bank.

Between Mys Sukhoy Nos and Mys Belyy, 12 miles N, the W side of the strait consists mostly of low cliffs. Between Mys Sukhoy Nos and Mys Kanin, 5.5 miles N, the 10m curve trends NNE from a position close N of the former point to a position about 0.2 mile E of the latter and lies up to 1.2 miles off the intervening coast.

Between Mys Kanin and **Mys Belyy** (69°54'N., 60°29'E.), which is fairly steep-to and from which a light is shown, the 10m curve conforms approximately to the trend of the coast and lies within 1 mile of the shore. Outside of the 10m curve, the depths lying off this stretch of coast are very irregular. A light is shown from Mys Belyy and

A sunken rock, which breaks, lies about 0.2 mile N of Mys Kanin and a sunken reef extends about 0.1 mile E from Mys Belyy.

An extensive sunken reef extends 1 mile E from a point located on the coast, 1.5 miles NNW of Mys Belyy. A stranded wreck lies 2 miles N of the same point.

Ostrov Vaygach—West Coast

3.30 The W coast of Ostrov Vaygach extends from Mys Greben to **Mys Rogatyy** (70°15'N., 58°25'E.), 49 miles NW. It varies in height from 9 to 28m and is mainly bold and rocky, but in some places it is low and grass-covered.

From Mys Greben to Mys Bol'shoy Lyamchin Nos, the SE extremity of a low promontory 21 miles NW, the coast is irregular and indented by **Bukhta Lyamchina** (69°49'N., 59°30'E.), several smaller bays, and several coves.

Mys Bol'shoy Lyamchin Nos is the SE end of a low, rocky peninsula which is joined to Ostrov Vaygach by a narrow isthmus. The peninsula terminates in two points, the E and taller one being 9m high. Foul ground extends about 0.1 mile seaward from the S side of the peninsula.

A light is shown from a structure standing on high ground about 1.5 miles WNW of Mys Bol'shoy Lyamchin Nos. A radiobeacon is situated at the light.

Guba Lyamchina (69°50'N., 59°14'E.) is an arm of Bukhta Lyamchina extending NW between a peninsula, which terminates in Mys Bol'shoy Lyamchin Nos, and the main coast of Ostrov Vaygach. This inlet can be used as a refuge when Proliv Yugorskiy Shar is blocked with ice. It is sheltered from winds from all directions except S and SE, though winds from the latter direction do not raise much sea.

The outer part of Guba Lyamchina affords anchorage, in depths of 9 to 13m, mud and sand. It is not advisable to anchor near the shore, as the bottom there is rocky.

Vessels approaching the inlet should steer for the SE extremity of Mys Bol'shoy Lyamchin Nos and round this point at a distance of about 1 mile. They should then proceed to the anchorage, sounding continuously and taking care not to closely approach the NE side of the entrance. A small islet, lying near the entrance of the inner part of the inlet, forms a convenient mark for anchoring.

Between Mys Bol'shoy Lyamchin Nos and **Mys Lapin Nos** (70°04'N., 58°37'E.), 17.5 miles NW, the coast is more regular, but from the latter point to Mys Rogatyy it is again much indented. Numerous islets and rocks lie off the coast and in the indentations. Mys Lapin Nos is marked by a light. An islet lies about 0.8 mile offshore, 1.5 miles S of this light.

Ostrova Mikhaylova (70°14'N., 58°19'E.) is a group of islets which lies 2 miles SW of Mys Rogatyy (70°15'N., 58°25'E.). A reef lies about 0.2 mile S of the southernmost islet of the group.

Ostrov Kolyubakina (70°15'N., 58°20'E.), marked by a light, is the northwesternmost islet of Ostrova Mikhaylova. A shoal patch, with a depth of 9.1m, lies 2.2 miles WSW of this islet. Isolated depths of 10, 12.8, and 17.9m lie 6 miles W, 2 miles WNW, and 9 miles WNW, respectively, of Ostrov Kolyubakina.

Proliv Karskiye Vorota

3.31 Proliv Karskiye Vorota, separating Ostrov Vaygach from Novaya Zemlya, trends NE for 18 miles from its Barents Sea entrance to its Kara Sea entrance. Both sides of Proliv Karskiye Vorota have numerous indentations and are fronted by many islands, islets, and sunken dangers which reduce the width of the fairway to about 13.5 miles.

The coast on the SE side is rugged and some parts of it are bold. Hills near the coast rise to heights of 30 to 91m.

Ice.—Frequently, and particularly at the beginning of the navigation season, Kara Sea ice enters the Barents Sea through Proliv Karskiye Vorota and becomes scattered, part of it passing along the coast of Novaya Zemlya for a considerable distance W.

Because of low visibility and the limited sectors over which observation is possible, only scant information is often available, and the only indication of ice in the strait may be the belt of fog which frequently appears above it. Very rarely, in exceptionally cold winters, the strait is completely frozen over, but will remain so for only a short period.

Tides—Currents.—A current from the Barents Sea sets NE through the SE part of Proliv Karskiye Vorota, usually extending somewhat over half the width of the strait from the coast of Ostrov Vaygach, but sometimes occupying the entire strait. This current has a normal rate of 0.5 to 1 knot, but with SW winds, it may attain a rate of 2 knots or more.

The tidal currents in the strait are strongest in its SE part, where they have rates of as much as 2.5 knots. The currents are weakest in the middle of the strait, where they have rates of 0.5 to 0.8 knot. Little or no slack water occurs. Rips frequently appear in the strait.

Depths—Limitations.—The depths throughout Proliv Karskiye Vorota are very irregular, large differences being found within a short distance in some places.

It has been reported (2010) that depths can be less than charted all throughout Proliv Karskiye Varota.

In the S approaches, **Banka Prokof'yeva** (70°19'N., 57°09'E.), with a least depth of 1.8m, forms the outermost danger. This shoal bank lies in the SW approach to the strait and is located about 25 miles W of Mys Rogatyy.

Caution.—A Traffic Separation Scheme has been established in the center of the strait. It is not IMO-adopted. However, the Russian authorities advise that Rule 10 of the International Regulations for Preventing Collisions at Sea (1972) applies.

Mys Rogatyy (70°15'N., 58°25'E.) lies on the SE side of the Barents Sea entrance to Proliv Karskiye Vorota.

Mys Kusov Nos (70°28'N., 57°07'E.), on the Novaya Zemlya side of the entrance to Proliv Karskiye Vorota, lies 29 miles WNW of Mys Rogatyy. See Sector 4 for a description of the N side of the strait.

3.32 Guba Dolgaya indents the NW coast of Ostrov Vaygach between Mys Rogatyy and **Mys Voronov Nos** (70°20'N., 58°31'E.), 5 miles NNE. The shores of this bay are 12 to 31m high, with some parts being bold and having bare patches of black slate. Hills rise inland and in the valleys between them there are patches of marshy tundra and numerous lakes. A number of islets and sunken dangers encumber Guba Dolgaya.

A prominent point is located in the bay, 2.8 miles SE of the southeasternmost islet of Ostrova Lory. It is 73m high and forms a good landmark for entering.

Ostrov Sredniy (70°17'N., 58°30'E.) lies in the middle of the entrance to the bay. Ostrova Lory (Laura Islets) lies near the NE shore of the bay, 3.5 miles SE of Mys Voronov Nos. There are also several smaller islets in this vicinity. Sunken rocks lie in the central part of the bay, 1 mile and 1.8 miles ESE of Ostrov Sredniy. Breakers have been reported to exist in the vicinity of these rocks and also near the shores of the bay. A 3.7m shoal patch lies about 0.2 mile WSW of the southwesternmost islet of Ostrova Lory. Range beacons stand near a village which is situated on the NE side of the bay, close E of Ostrova Lory.

Anchorage.—Anchorage can be obtained in various parts of Guba Dolgaya. The bay is sheltered from all winds except those from NW, and even with winds from that direction, vessels lying near the head of the bay are not endangered by the swell. The bottom is mainly mud, which in some places is only a thin layer covering smooth rock.

The best anchorage, in depths of 12 to 17m, mud over rock, lies near the NE side of the bay and SE of Ostrova Lory. This anchorage is protected from ice by the islets and by the reefs extending from them.

Small craft can anchor NE of Ostrova Lory. There is also good anchorage, in a depth of 16.5m, mud, to the E of an islet lying 2.2 miles E of Mys Rogatyy. However, the bottom close to this islet forms a poor holding ground.

Caution.—The entrance into Guba Dolgaya is not easily distinguished from a distance. The best landmarks in its vicinity are the light structures situated on Ostrov Kolyubakina and Ostrov Chirachiy (70°22'N., 58°17'E.).

Because the bay is imperfectly surveyed, vessels must enter with great care and sound continuously.

3.33 Between Mys Voronov Nos and Mys Kostyanoy Nos, 8 miles NE, the coast is fronted by numerous islets and dangers which lie up to 7.2 miles offshore.

Ostrov Chirachiy (70°22'N., 58°17'E.), located 5 miles WNW of Mys Voronov Nos, is the northwesternmost of a group of islets lying on the NE side of the approach to Guba Dolgaya. A lighted beacon stands on this islet. Shoal patches, with depths of 8.2 and 3m, lie about 1 mile and 2 miles, respectively, ENE of Ostrov Chirachiy.

Ostrov Bol'shoy Voronov (70°20'N., 58°32'E.), lying 1 mile N of Mys Voronov Nos, is 64m high, dome-shaped, and bluff-sided. A beacon, 12m high, stands on this islet and a 4.5m shoal patch lies 1.5 miles ENE of it.

Ostrova Yanova (70°24'N., 58°29'E.) lies 4 miles N of Mys Voronov Nos. A rocky shoal, with a least depth of 1.2m, extends 1.5 miles NW from this group of islands. Shoal patches, with least depths of 1.8 and 7m, lie 0.8 mile W and 1.2 miles WNW, respectively, of Ostrov Malyy Yanov, the westernmost island of the group. Shoal patches, with depths of 8.8 and 4.5m, lie 1.2 miles NE and 1.8 miles ENE, respectively, of the easternmost island.

Ostrov Oleniy (70°28'N., 58°40'E.) lies 2 miles offshore with its SW extremity located 7 miles NE of Mys Voronov Nos. A beacon stands near the center of this island. An islet, from which a light is shown, lies close off the NW end of the island. A racon is situated at the light.

An area of foul ground extends about 6 miles W and 1.2 miles SSW from Ostrov Oleniy. Above-water rocks, sunken rocks, rocks awash, and depths of less than 11m lie within

this area. A 6.1m shoal patch lies about 2.5 miles E of the E end of Ostrov Oleniy.

3.34 Bukhta Voronova, entered between Mys Voronov Nos and **Mys Yasaru Salya** (70°20'N., 58°40'E.), 3 miles E, affords anchorage for small vessels with local knowledge. There are depths of 10 to 12.8m in the middle of this bay. Foul ground fringes Mys Voronov Nos. A reef, partly above water, lies between an islet, lying in the outer part of the bay, and Ostrov Bol'shoy Voronov. Two hills, 46 and 79m high, rise on the E side of the bay and are both surmounted by cairns.

Vaygach Radio Station (70°24'N., 58°48'E.) is situated on the NE side of the bight which lies between Mys Yasaru Salya and Mys My Salya, 4.2 miles NNE. A spit, with depths of less than 5.5m, extends about 1 mile NW from the shore of this bight to a position about 1 mile S of Mys My Salya. Several small islets lie on this spit. Shoal patches, with depths of 8.8 and 9.4m, lie about 0.4 mile WNW and 0.5 mile NW, respectively, of the northwesternmost of these islets.

The buildings of the radio station and the polar station stand in a valley lying between a section of high land, which extends SE from Mys My Salya, and a low hill. The radio mast, an iron framework tower, is 30m high, prominent, and a signal mast stands near it.

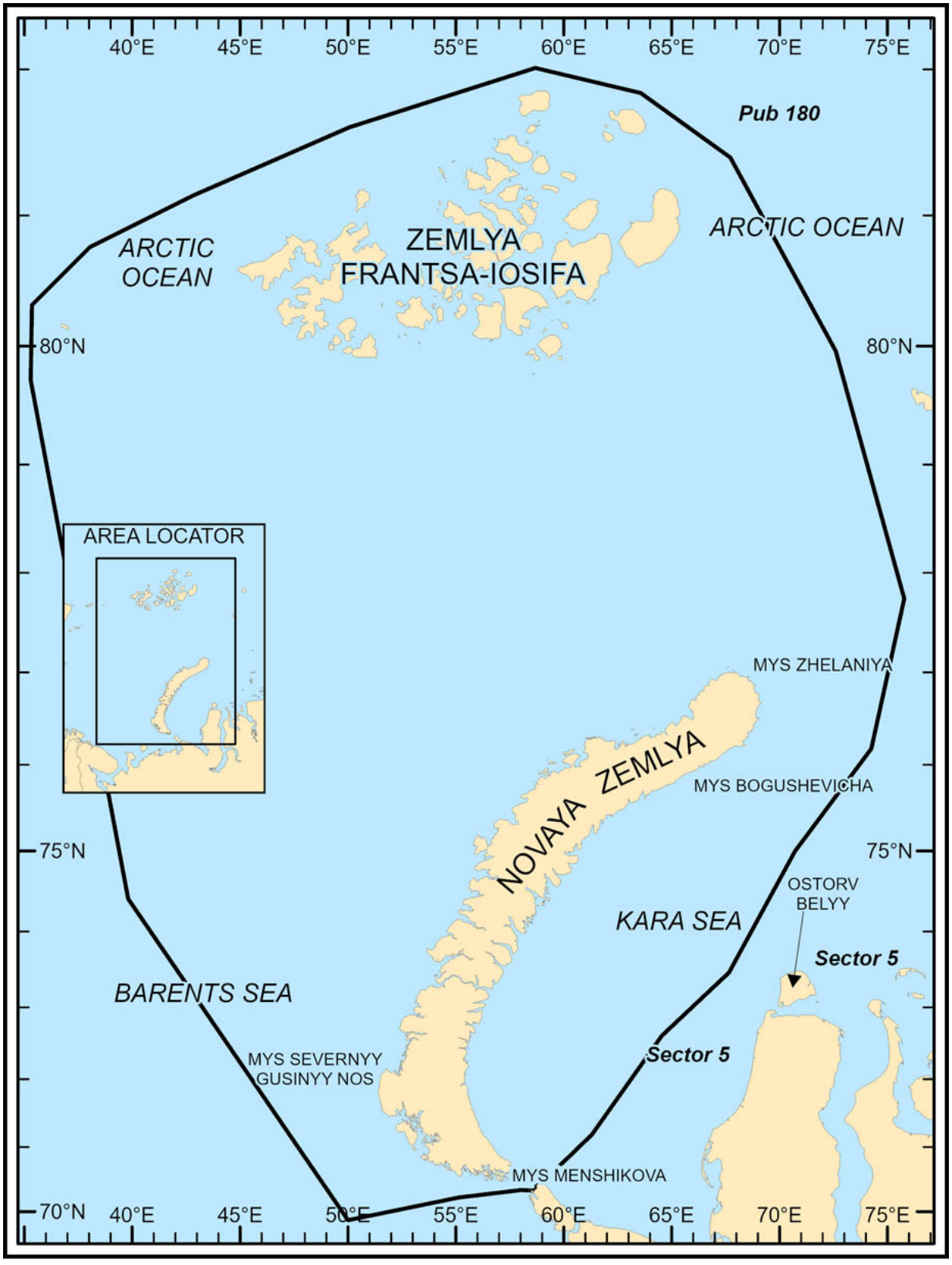
Anchorage can be obtained in the roadstead lying W of the radio station. This roadstead is sheltered from winds from NNE through S to SW and is partially sheltered from W and NW winds by the off-lying islets and dangers. With onshore winds, there is a swell in the anchorage and surf on the beach. The roadstead has depths of 13 to 22m over a bottom of mud and gravel.

Range beacons are situated near the radio station. These beacons, bearing 087°, indicate the channel leading between the off-lying dangers to the roadstead. The roadstead can be approached from NE by passing midway between Ostrov Oleniy and Ostrov Vaygach and passing W of a 6.1m shoal patch lying 2.5 miles E of the NE extremity of Ostrov Oleniy.

Due to the numerous dangers in the channel, vessels should not attempt to pass between Ostrova Yanova and Ostrov Oleniy.

Between Mys Kostyanoy and Mys Bolvanskiy Nos, 5.5 miles ENE, the coast forms a bight which is shallow in places.

Mys Bolvanskiy Nos (70°28'N., 59°04'E.), the N extremity of Ostrov Vaygach, is 3.7m high and composed of limestone. It is the seaward end of a peninsula which is joined to Ostrov Vaygach by a low, narrow isthmus. A lighted beacon is situated 0.5 mile W of Mys Bolvanskiy Nos. Vessels in the vicinity of this point should proceed with caution, giving it a wide berth.



Additional chart coverage may be found in NGA/DLIS Catalog of Maps, Charts, and Related Products (Unlimited Distribution).

Sector 4 — CHART INFORMATION

Sector 4
Novaya Zemlya and Zemlya Frantsa-Iosifa

Plan.—This sector describes the coasts of Novaya Zemlya and the Zemlya Frantsa-Iosifa island group. The descriptive sequence is W from the SE extremity of Novaya Zemlya and N on the W and E coasts. The Zemlya Frantsa-Iosifa island group is described in a W, S, N, and E order.

General Remarks

4.1 Novaya Zemlya consists of two islands separated by Proliv Matochkin Shar, a narrow and navigable strait, which is 55 miles long. From **Proliv Karskiye Vorota** (70°30'N., 58°00'E.), the S island trends successively NW, N, and NNE in a curve for about 200 miles to Proliv Matochkin Shar. The N island then trends in a general NE direction for 310 miles to Mys Zhelaniya, its NE extremity.

The S island of Novaya Zemlya consists of a level plain which, except on its SE side, is bordered by hills and mountains. The elevation of the land gradually increases to the N from Proliv Karskiye Vorota toward Proliv Matochkin Shar. In the vicinity of the strait, several mountains attain heights of about 1,050m. To the N of Proliv Matochkin Shar, the mountains gradually decrease in height and the NE part of the N island is comparatively low. There are deep valleys in many places on both islands.

The N island is mostly covered by an icecap. Glaciers descend to the sea on both sides of the island to the N of 74°N. In the NE part of this island, no glaciers reach the coast. Valley glaciers, which do not come down to the sea level, are found in the vicinity of Proliv Matochkin Shar. Several sheltered anchorages lie in the coastal indentations of Novaya Zemlya, most being along the S and W coasts. Several small settlements, trading posts, and polar stations are situated on the coasts of both islands.

Ice.—During the navigation season (June to October), if there is ice in Proliv Karskiye Vorota, vessels at anchor along the S coast of Novaya Zemlya may be beset by it, particularly with N and E winds. Frequently, and particularly at the beginning of the navigation season, a quantity of Kara Sea ice enters the Barents sea through Proliv Karskiye Vorota and becomes scattered, part of it passing along the coast of Novaya Zemlya for a considerable distance.

By the middle of June, the Barents Sea is navigable to 75°N, as far E as 50°E. Towards the end of June, the W coast of Novaya Zemlya begins to clear and is ice-free usually early in July.

Between **Mys Pal'tsev** (73°59'N., 58°14'E.) and Ostrov Pakhtusova, 30 miles NE, the coast on the E side of the N island becomes clear of ice during late July or early August. This area usually freezes over about the middle of October. In the various inlets, where there are glaciers, ice may be encountered at any time in the form of small icebergs which drift out to sea under the action of the wind. These local icebergs may rise up to 12m above the water level.

In certain weather conditions, ice may accumulate on the hulls and superstructures of vessels. This event may result in a dangerous situation. A combination of strong winds, precipitation, and spray in sub-zero temperatures can result in ice accumulation. It can also form when fog is combined with freezing conditions or in freezing drizzle or rain. The conditions are likely to occur at any time between September and June. If vessels are unable to reach shelter or warmer conditions, they should head into the wind and sea at the slowest speed possible. If weather conditions do not allow the former action, vessels should put the wind astern and proceed at the least speed necessary for maintaining steerage.

Winds—Weather.—The general effect of topo y on winds is the same in this area as in other parts of the world. Most coastal onshore or offshore winds follow narrow channels and valleys.

The most important local wind in this vicinity is the "bora" of Novaya Zemlya which is also known as "vstok," "stok," or "yuzhaki." The frequency of these very strong squally, offshore winds may vary considerably from year to year. As many as 140 to 160 days with these strong gale winds was reported at Malyy Karmakuly. Some coastal areas of the Zemlya Frantsa-Iosifa island group experience these violent winds, but little is known of their characteristics except that they are usually of a short duration.

The bora begins when a flow of cold air approaching from the windward side of a mountain range accumulates and then spills over as an atmospheric flood down the leeward side. The outstanding characteristic of the boras in the area of Novaya Zemlya is that they occur with no pronounced regularity on either the W or E coast, but depend upon the track of the low-pressure system involved and the associated direction of flow of the colder air.

Over the years, a slightly larger number of boras probably occur along the W coast during the winter season, but no such predominance is apparent in the other seasons. Of the boras occurring at the W side of Novaya Zemlya, those along the shore of the N island are generally not quite as strong as those along the S island.

The weather maps prior to a W coast bora usually show a high-pressure center to the E and a low approaching Novaya Zemlya from the Barents Sea. With the E coast bora, there is usually a low moving across the Kara Sea and a high centered over Norway. Boras occur most often from January to April and least often from June to September. The average duration is 24 hours, but extremely squally conditions may last up to 5 days. Gusts of 60 to 80 knots are fairly common. Proliv Matochkin Shar once recorded an average wind velocity of 91 knots for 1 hour. Individual gusts reaching at least 115 knots have been observed at coastal locations along Novaya Zemlya. Boras generally do not extend very far seaward, probably not more than 11 miles.

The arrival of a bora may be predicted fairly well by the following local indications:

1. An offshore wind begins to blow gustily about 12 hours in advance.
2. Cumulus clouds form over the coastal mountains and ravines 6 to 10 hours in advance, but otherwise there tends to be a decrease in cloudiness.
3. The relative humidity begins to fall very noticeably 6 to 10 hours in advance and reaches a minimum 2 to 4 hours in advance.
4. The cloudiness and relative humidity increase 2 to 4 hours in advance until the onset of the bora. In addition, the wind freshens.

Combined occurrence of these local conditions is usually required for a reliable prediction. When such a combination does occur, vessels should take all necessary precautions.

Regulations.—For information on the Northern Sea Route, see paragraph 1.2.

Caution.—It should be noted that only the W coast of Novaya Zemlya, near and chiefly S of Proliv Matochkin Shar, has been triangulated; the remainder, including the whole of the E coast, is from very rough running surveys, made under great difficulties. Local knowledge is required.

Several restricted areas exist in the vicinity of Novaya Zemlya.

Due to the lack of reliable information, radio navigational aids on the Russian Arctic Coast and adjacent islands, from the E side of Novaya Zemlya to the Bering Strait, are being omitted from charts and publications. Therefore, the information concerning radiobeacons included in the following text is provided strictly as a general guide based on past information.

Abnormal magnetic variation has been reported by vessels navigating in the vicinity of the W coast of Novaya Zemlya, between Ostrova Barentsa and Mys Karlsena. Departures from the normal variation of up to 14° have been observed.

Novaya Zemlya—South Coast

4.2 Mys Men'shikova (70°42'N., 57°36'E.), the SE extremity of Novaya Zemlya, is a narrow, bluff projection which rises to heights of 12 to 15m. From a distance, this cape appears dark-colored and somewhat higher than the coast on either side. A light is shown from a conspicuous structure standing on the cape. A radiobeacon is situated at the light.

Vessels should give the cape a wide berth as breakers have been observed in the vicinity and shoal depths of 10m and 4.2m have been reported to lie about 1 mile SE and 1 mile E, respectively, of it.

Ostrov Izbnoy (70°36'N., 57°28'E.), dark and 12m high, lies 6.5 miles SSW of Mys Men'shikova. The coast between is indented by several bays and coves.

A bay indents the coast between Mys Men'shikova and Mys Zhandr, 2 miles SW, and affords protection from NW winds. However, the NE part of this bay is the only area which has been examined.

Ostrova Krapivina (70°37'N., 57°28'E.), a group of islets, lies near the shore, about 0.8 mile N of Ostrov Izbnoy. The islets are conspicuous because of their dark color which contrasts with the yellowish background of the coast. Foul ground lies between the islets and the coast and the SE side of the group is fronted by a reef.

Ostrov Kazobin (70°33'N., 57°29'E.), an islet with gently sloping sides, lies 2.5 miles S of Ostrov Izbnoy. Numerous dangers are reported to lie between this islet and Ostrov Izbnoy. Foul ground extends up to about 2 miles NE, ESE, and E from the islet and a rock, awash, lies on its E edge. A barren, steep-sided, and flat-topped islet lies on the SE edge of the foul ground. A shoal patch, with a depth of 4.6m, lies about 3 miles E of Ostrov Kazobin and a shoal, with a depth of 11m, lies 1.5 miles SSE of it.

4.3 Guba Loginova (70°35'N., 57°26'E.) extends 15 miles WNW from its entrance which lies between the SE extremities of Poluostrov Piritovyy and a narrow peninsula, 3.5 miles NE. Poluostrov Piritovyy lies on the SW side of this bay. This peninsula rises to a height of 61m in its SE part, but becomes lower to the NW. A prominent hill, 49m high, stands 5.5 miles NW of the SW entrance point.

Mys Ozernoy (70°33'N., 57°19'E.) is located 0.8 mile N of the SE extremity of Poluostrov Piritovyy. The buildings of a polar station stand on this cape. A stone beacon, 4.8m high and surmounted by a cask on a pole, is situated close N of these buildings. A rocky shelf, with a depth of 4.3m at its outer edge, extends about 0.2 mile seaward from the cape.

The NE shore of the bay is 9m high and considerably indented. Both shores are, for the most part, bold.

Ostrova Rukhlova (70°33'N., 57°29'E.), consisting of two islets connected by a drying flat, lies 1.5 miles NE of Mys Ozernoy. Ostrov Ragozina and Ostrov Lot-Ryba lie 0.5 mile and 2 miles, respectively, WNW of the inner islet. Several other islets also lie in the upper part of the bay.

Anchorage can be obtained in several places within the bay, but local knowledge is required. The bottom is formed by mud or clay and provides good holding ground. A recommended anchorage protected from all except SE winds lies, in a depth of 16m, about 0.3 mile SW of the middle of the inner islet of Ostrova Rukhlova. Vessels with moderate drafts can anchor in the N part of a cove which lies on the S side of Mys Ozernoy.

Caution.—Vessels approaching Guba Loginova should pass midway between Ostrov Bol'shoy Loginov and Ostrov Kazobin. Vessels should not attempt to enter the bay by passing between Ostrov Kazobin and the NE entrance point.

4.4 Ostrov Bol'shoy Loginov (70°31'N., 57°26'E.), lying 1.8 miles S of Ostrov Kazobin, is high, bold, and consists of three parts. The E and W parts are joined by a low and narrow isthmus. The N part is connected to the W part by another low isthmus on which there is a pond. A conspicuous light-colored patch is located on the cliffs at the NW extremity of the island. A light is shown from a structure, 17m high, standing on the E part of the island.

The E shore of the island is indented by several coves that are available to small craft with local knowledge. A group of islets lies close off the SE end of the island and the east-

ernmost is high, steep, and flat-topped. A shoal, with a least depth of 2.1m, lies about 2 miles ESE of the E extremity of Ostrov Bol'shoy Loginov and breaks during heavy weather. A rock, awash, lies about 0.8 mile ESE of the E extremity of the island. Vessels should use caution in the vicinity of these dangers.

Proliv Nikol'skiy Shar (70°32'N., 57°00'E.) lies between Kusova Zemlya, on the SW side, and Poluostrov Piritovyy, on the NE side. This strait is 10 miles long and has a least width of about 0.5 mile. It is encumbered by several islets and the shores are bold. The NE shore is 50 to 60m high in its SE part and 20 to 30m high in its NE part.

Caution.—Proliv Nikol'skiy Shar has been only superficially examined and should not be entered by vessels without local knowledge.

4.5 Ostrov Sredniy (70°32'N., 57°14'E.) lies near the middle of the SE entrance to Proliv Nikol'skiy Shar. A small cove indents the E side of this island and a beacon stands near the NW end. Several islets lie within 1.5 miles of the island.

Bukhta Severnaya (70°32'N., 57°18'E.), entered between Ostrov Bol'shoy Loginov and Ostrov Sredniy, is sheltered from all directions. The outer part of this cove has depths of 20 to 50m and the inner part has a depth of 10m.

Mys Kusov Nos (70°28'N., 57°07'E.), on the Novaya Zemlya side of the entrance to Proliv Karskiye Vorota, is located 29 miles WNW of Mys Rogatyy. This point forms the S extremity of Kusova Zemlya and is surmounted by a cross.

A shallow bank has been reported to extend SE from the point. A shoal patch, with a depth of 5.8m, lies about 1.5 miles SE of the point. A rock, awash, lies 2.8 miles ENE of the point and a shoal, with a depth of 4.6m, lies about 1 mile SE of it.

A light is shown from a pyramid structure, 16m high, standing on an islet that lies close S of the point.

Caution.—The area in the vicinity of Mys Kusov Nos is unexamined; vessels should keep well clear of this point.

4.6 Guba Tarkhova (70°30'N., 57°06'E.) is entered between Mys Kusov Nos and Mys Yeleny, 1.5 miles ENE. This bay is sheltered from all winds except those from S and SE. Its shores are grayish-colored and steep near the entrance, but have a more gradual slope at the head. An isolated shoal, with a depth of 11.8m, lies in the middle of the bay and the head shallow.

A bank, with depths of less than 9m, extends about 1.2 miles SE from Mys Yeleny, the N entrance point.

Banka Persey (70°25'N., 57°39'E.), consisting of mud-covered rock, lies between 4 and 11 miles ESE of Mys Kusov Nos. Its central portion is awash in several places and breakers appear with only a slight swell. Several shoal patches lie on this bank and have depths of 2.7 to 8.8m. Due to the strong currents setting across this bank and the irregularity of the surrounding depths, it should be given a wide berth. The passage leading between the bank and Ostrov Malyy Loginov is also not recommended.

A shoal, with a depth of 5.8m, lies S of the W part of Banka Persey, 6.8 miles SE of Mys Kusov Nos. A detached rock, with a depth of less than 2m, lies at the E extremity of the bank, about 11 miles ESE of Mys Kusov Nos.

4.7 Ostrov Malyy Loginov (70°29'N., 51°19'E.) lies 1.5 miles ESE of the SE point of Kusova Zemlya. Although comparatively high, this island is not easily identified from S. Two islets lie close off its SE end. An area of foul ground, with rocks awash and depths of 3 to 7m, extends up to about 2.8 miles SW and 1.8 miles E from the SE end of the island.

Banka Prokof'eva, a narrow ridge of rock covered with a thin layer of mud, extends about 6 miles. Its NW and SE ends lie about 7 miles SW and 8.8 miles S, respectively, of Kusov Nos Light and it is steep-to. The bank has depths of less than 11m, but the shoalest part with a depth of 1.9m, lies about midway between its extremities.

4.8 The SW side of Kusova Zemlya trends NW for 9.5 miles from Mys Kusov Nos to the NW extremity of the island. Several islets lie within 2 miles of Mys Kusov Nos.

A bay is entered between a point, located 6.5 miles NW of Mys Kusov Nos, and another point, 1.8 miles NW. It affords anchorage to vessels with local knowledge, but three islets lie in the entrance and an unexamined shoal patch, which breaks occasionally, lies about 0.5 mile SW of the NW entrance point.

Between Mys Kusov Nos and Mys Kabaniy Nos, 22 miles WNW, the coast is deeply indented and fronted by numerous islands.

Ostrova Pyniny (70°27'N., 56°34'E.), consisting of four islets, lies 11 miles W of the S extremity of Kusova Zemlya. The islets are low, flat, and steep-to on their SW sides. A cross stands on the E end of the largest islet.

Ostrov Pukhovyy (70°30'N., 56°25'E.) lies with its S extremity located 2.6 miles NW of the W extremity of the largest islet of Ostrova Pyniny. This island is 25 to 30m high and steep except on its NE side. Its shores are fronted by several above-water rocks and sunken reefs.

Ostrov Malyy Oleniy (70°32'N., 56°41'E.), lying 3 miles E of Ostrov Pukhovyy, consists of two parts connected by a low and narrow isthmus. This island is composed of volcanic rock and is 40m high. Several bays indent the SE side of the island. The largest of these bays lies E of the isthmus and has an islet in its outer part. The entrance points of these bays are fringed by numerous rocks.

An islet, with a rock awash 0.2 mile E of it, lies 1 mile N of the NE part of the island. A shoal patch, with a depth of 17.7m, lies about 2.5 miles SE of the S extremity of the island.

Ostrov Britvin (70°30'N., 56°19'E.) lies 1 mile W of the NW extremity of Ostrov Pukhovyy. This island is low in the middle, becoming slightly higher towards its NE extremity. Its NW part is 9 to 12m high and steep. Several small islets and rocks, mostly above water, lie off the SE side of the island. The outermost of these dangers, a rock awash, lies 1 mile SE of the island.

It is reported that fishermen and hunters frequent this island during most of the year. A supply of provisions for a few persons is maintained in a hut on the E side of the island. A

beacon, 18m high, stands on a small hill in the NW part of the island.

A shoal, with a depth of 3m, is reported to lie about 5 miles ESE of the light.

Ostrov Bratkov lies 2 miles SSW of the S extremity of Ostrov Britvin. A rocky shoal patch, with a depth of 12.8m, is reported to lie about 2.2 miles SE of this island, but the area has not been thoroughly examined.

4.9 Ostrov Ozernoy (70°33'N., 56°17'E.), 18 to 22m high, lies 2.5 miles N of Ostrov Britvin. The W side of this island rises steeply, but the E side has a more gradual slope. The island is steep-to on the N and NE sides, but several rocks, above-water and awash, fringe its other shores.

Breakers have been reported to occur about 0.5 mile SW of the SW extremity of the island. A shoal patch, with a depth of 1.9m, has been reported to lie about 0.8 mile SSE of the island. Two shoal patches, with depths of 4 and 9.2m, have been reported to lie about 0.9 mile SW and about 1 mile W, respectively, of the island.

Mys Kabaniy Nos (70°34'N., 56°02'E.), the SE extremity of a dark-colored peninsula, is located 6.3 miles WNW of the NW extremity of Ostrov Britvin and fronted by an above-water rock on its S side. A small log house stands on this point.

The depths in the vicinity of the point are very irregular and a shelf, with depths of less than 11m, extends about 2 miles SSE from it. Vessels should not approach within 2.5 miles S or SE of this point.

A bay lies between Mys Kabaniy Nos and a point, 1.5 miles N. It has not been examined and should not be entered without local knowledge.

Guba Sakhanikha (70°36'N., 55°12'E.), a large bay, is entered between Mys Kabaniy Nos and Mys Sakhanin, 17 miles W. It is encumbered by several islands and dangers and the shores are much indented. The head of the bay is divided into two parts by **Poluostrov Rakhmanov** (70°38'N., 55°38'E.), a peninsula, which projects from the NW side.

Ostrova Yuzhnyy Gorbovy (70°32'N., 55°42'E.) consists of a group of seven islands, three of which are very small. Ostrov Gorbovy, the southernmost and largest island of this group, lies with its S end located 6.8 miles W of Mys Kabaniy Nos. It is steep-sided and comparatively high. A group of above-water rocks lies centered 0.5 mile SSE of the S end of this island. Several shoal patches, with depths of 3m, lie centered about 0.4 mile N of the northernmost island of the group and an isolated shoal, with a depth of 3.4m, lies about 0.2 mile NE of them.

A detached shoal, with a depth of 12.8m, lies in the entrance to Guba Sakhanikha, about 4 miles SSW of Ostrov Gorbovy.

A group, consisting of three small islets, lies 2 miles NW of Ostrova Yuzhnyy Gorbovy. A ridge of above-water rocks projects about 0.2 mile SE from the southeasternmost islet of this group. Shoal patches, with depths of 2.4, 10.4, and 10.4m, lie about 0.5 mile NE, 0.5 mile SW, and 1 mile NNE, respectively, of the N end of the largest islet of this group.

4.10 Ostrov Bol'shoy Sakhaniny (70°29'N., 55°21'E.) lies 4.5 miles SE of Mys Sakhanin and is the southernmost islet in the approach to Guba Sakhanikha. A prominent beacon, 11m high, stands on this islet.

Detached shoals, with depths of 6.4 and 12.8m, lie about 4 miles SE and 6 miles E, respectively, of the beacon. An extensive shoal, with depths of less than 5m, extends 5 miles NNE from Ostrov Bol'shoy Sakhaniny and is about 2 miles wide at its N end. Ostrov Malyy Sakhaniny lies on the N part of this extensive shoal, about 3.5 miles NNE of the beacon. From the E, this islet appears to be divided into two parts by a gorge. Ostrov Ploskiy, a low and flat islet, lies 2 miles N of Ostrov Malyy Sakhaniny.

A submarine valley, with depths up to 180m, lies from 10 to 15 miles offshore between the meridians of Ostrova Yuzhnyy Gorbovy, located 10 miles E of Mys Sakhanin, and Mys Chernyy. In the vicinity of Mys Sakhanin, this valley widens and lies closer to the coast. Vessels approaching the coast in thick weather can use the depths of the valley to estimate their positions.

Mys Sakhanin (70°33'N., 55°11'E.), a steep headland, is 9 to 12m high. It is composed of three rocky projections which are fringed by above and below-water rocks. An islet, with a drying rock 0.2 mile SE of it, lies 0.5 mile E of the easternmost projection. Another islet, fronted by an above-water rock, lies 0.4 mile SE of the middle projection. A conspicuous white log house is reported to stand on the headland.

Mys Olonkina (70°38'N., 54°53'E.), the W extremity of a steep promontory, is located 8.5 miles NW of Mys Sakhanin and surmounted by several crosses. The coast between is bluff and little indented. A narrow and shallow channel lies close NE of this point and leads to a lagoon.

4.11 Guba Chernaya (70°38'N., 54°49'E.), a large bay, is entered between a small peninsula, located 1.2miles W of Mys Olonkina, and Mys Vkhodnoy, 0.6 mile WSW. A monument, in the shape of a cross, stands on the peninsula and a light is shown from Mys Vkhodnoy. The bay trends NW for about 10 miles from its entrance.

Immediately within the entrance, the bay is 0.8 mile wide and its shores are 24 to 31m high. About 2 miles from the entrance, the bay gradually widens and becomes an extensive basin with indented shores. There are depths of 35 to 54m in the approach and entrance channel. The bottom consists of mud and stones at the entrance and mud with some patches of red shells in the inner part.

A reef, with depths of less than 1.8m, is reported to lie about 2.8 miles S of Mys Vkhodnoy, but has not been fully examined.

Ostrov Roze (70°38'N., 54°52'E.), a steep-sided islet, lies 0.4 mile E of the peninsula, on the E side of the entrance to the bay. A bank, with depths of less than 5m, extends about 0.2 mile S from this islet. Shoal patches, with depths of 7.9 and 10m, lie about 0.6 mile SSE and 0.6 mile SSW, respectively, of the E end of the islet.

A sunken rock lies near the S side of the peninsula and a spit, with depths of 6.4 to 10m, extends about 0.4 mile NW from its NW extremity.

Ostrov Chernyy, located 0.3 mile S of Mys Vkhodnoy, is a very small islet. It lies on a shoal, with depths of less than 5m, which extends about 0.8 mile S, 0.4 mile SE, and 0.3 mile E from the point. A reef, with a least depth of 0.9m at its SE end, lies between 0.5 and 1 mile SE of Mys Vkhodnoy.

The NE side of Guba Chernaya is indented by a cove which is entered between the extremity of a small peninsula, located 6 miles NNW of the entrance to the bay, and a point, 1.2 miles NW. A cairn stands on the SE entrance point of this cove.

The SW side of Guba Chernaya is formed by a peninsula which extends about 9 miles SE from the coast and terminates in Mys Vkhodnoy. This side of the bay is indented by three coves.

Guba Baklyshi, the southeasternmost cove on the SW side of Guba Chernaya, lies 3 miles NW of Mys Vkhodnoy. Its N entrance point is fronted by above-water rocks. A narrow channel leads from the head of the cove to a lagoon. This cove has not been fully examined and local knowledge is required.

Guba Voronina lies in the NW part of Guba Chernaya, 8 miles NW of Mys Vkhodnoy. This cove consists of two parts connected by a narrow and shallow passage. An islet lies in the outer part of the cove and an above-water rock lies on a shallow shoal close N of the E entrance point. The entrance to the cove is about 180m wide and the fairway channel, which lies near to the E entrance point, has a depth of 3.9m. There are depths of 8 to 12m within the entrance, but the inner part has depths of 3 to 4m and is accessible only to small craft. Vessels with local knowledge can anchor, in depths up to 11m, about 0.2 mile W of the above-water rock lying N of the E entrance point.

4.12 Ostrov Kaltak (70°44'N., 54°31'E.), an islet, lies 0.8 mile ENE of the E entrance point of Guba Voronina and foul ground extends about 0.2 mile W from it. A shoal patch, with a depth of 5.7m, lies about 0.2 mile N of this islet.

Guba Domashnyaya (70°43'N., 54°22'E.) is entered between the W entrance point of Guba Voronina and a point, about 200m NNW. Within its entrance this cove widens to form a basin which has depths of 5.5 to 9.4m in its central part. Krasino, a trading post and settlement for hunters and fishermen, is situated on the N shore of the cove.

Small vessels can anchor, in a depth of 11m, mud, about 0.3 mile S of the trading post. Large vessels cannot enter the cove due to the narrowness of the channel. Such vessels can anchor, in depths of 13 to 29m, to the W of Ostrov Kaltak, but local knowledge is required.

4.13 Mys Bol'shoy Kushnoy (70°40'N., 54°31'E.) is located 5.8 miles WNW of Mys Vkhodnoy. The coast between is fronted by several above and below-water rocks. Shallow rocks lie about 0.8 mile and 2.2 miles WSW of Mys Vkhodnoy. An above-water rock lies about 1.5 miles W of the same point.

Guba Shirochika (70°43'N., 54°02'E.) lies between Mys Bol'shoy Kushnoy and Mys Perevesinskiy, 6.5miles WNW. A gap in the generally steep shore of this bay appears at its head and is conspicuous from seaward. Coves indent the SE and NW ends of the bay. Several islets and above-water rocks encumber the SE cove.

Ostrov Rakovaya Ludka, lying 4.5 miles SW of Mys Perevesinskiy, is a low, flat, and inconspicuous islet. An above-water rock and several below-water rocks lie close W of it. Breakers have been reported to occur about 1.5 miles E of this islet.

Between Mys Perevesinskiy and Mys Bezymyannyy, 11.8 miles WNW, the coast appears uniform and steep from seaward. However, this stretch of shore is indented by three bays. Guba Koslova, the southernmost bay, is entered between Mys Perevesinskiy and a point, 2.5 miles NW. The W part of its entrance is encumbered by several above-water rocks and its head is separated from a lake by a low ridge. Guba Rakovaya is entered NW of Mys Rakovyy and has not been fully examined. A rocky ledge, partly above-water, projects about 0.5mile SE from a point on the W side of the bay, located 0.8 mile N of its W entrance point.

A point, located 2.5 miles WNW of the W entrance point of Guba Rakovaya, is fronted by foul ground which extends up to about 1 mile S and 1 mile W. A conspicuous white patch appears on the coast near this point.

Guba Stroganova is entered between Mys Bezymyannyy and **Mys Muchnoy** (70°47'N., 53°54'E.), 2.2 miles W, and has not been fully examined. A prominent cairn stands on the former point. Two small, flat islets lie close S of the latter point and a rock, awash, lies about 0.8 mile E of them. A peninsula divides the head of this bay into two parts. A rock, which breaks, and an above-water rock lie about 0.2 mile SE and 0.2 mile S, respectively, of the SE extremity of this peninsula.

Novaya Zemlya—West Coast

4.14 Mys Chernyy (70°52'N., 53°21'E.), located 6.5 miles NW of Mys Muchnoy, is the NW extremity of a rocky peninsula which rises from the sea to a height of 34m. This point appears brownish from a distance, but gray on closer approach. Savina Kovriga, the northwesternmost and higher of two hills standing on this peninsula, forms a conspicuous landmark and first appears from a distance as an islet. A light is shown from a structure, 14m high, standing on this hill.

Rocks, which break, lie about 0.2 mile and 1.5 miles NNW of the point. A shoal patch, with a depth of 4.8m, lies about 2.5 miles W of the point. The area in the vicinity of Mys Chernyy has not been fully surveyed and vessels should not approach the point within 3 miles.

Between Mys Chernyy and Mys Yuzhnyy Gusinyy Nos, 46 miles NW, there is an extensive bay which is mostly occupied by Ostrov Mezhdusharskiy, a large island.

Proliv Kostin Shar (70°55'N., 53°17'E.) separates this large island from Novaya Zemlya and its E shore is indented by many bights and inlets. This strait, which is encumbered by numerous islands and dangers, is 55 miles long and has not been completely surveyed. Its W shore has comparatively few indentations.

In the S part of the strait, the coast of Novaya Zemlya is rather low, but it increases in height farther to the N. Several

hills rising near the NE side of the strait are visible from seaward and appear as a continuous ridge with several low peaks.

Between Mys Yuzhnyy Gusinyy Nos and Mys Severnyy Gusinyy Nos, 42 miles N, the coast is comparatively low and has no large indentations. Low hills rise near the shore and somewhat higher hills stand 4 to 6 miles inland. This stretch of coast forms the W side of Gusinaya Zamlya, a broad peninsula, which extends between the N part of Proliv Kostin Shar and Zaliv Mollera. A light is shown from a structure, 18m high, standing on the S part of Mys Severnyy Gusinyy Nos. A radar reflector is situated at the light.

The depths in the approaches to Proliv Kostin Shar and off the SW side of Ostrov Mezhdusharskiy (71°10'N., 53°00'E.) are irregular. An area extending between 1.5 and 6.5 miles from the latter island has not been fully examined. Drying rocks lie (position approximate) about 11.8 and 12.2 miles WSW of Mys Severnyy Gusinyy Nos.

A reef, above-water in places, extends 2.2 miles W from a point located on the shore, 7.5 miles SW of Mys Severnyy Gusinyy Nos. A shoal, with a depth of 17.8m, lies about 6 miles NW of this point. The area in the vicinity of this point has not been fully examined and vessels should not approach the coast within 8 miles.

4.15 Ostrov Mezhdusharskiy (71°10'N., 53°00'E.) has a number of lagoons and steep, projecting dark headlands located along its S coast. Obmannyy Shar, a large lagoon, lies 5 miles N of the S end of the island and is separated from the Barents Sea and Proliv Kostin Shar by low, narrow strips of shingle. The island broadens to the N of this lagoon, its N part having a width of nearly 14 miles. Numerous lakes lie near the coasts of the island and there are marshes farther inland.

Caution.—In thick weather, the low land on the E and W sides of Obmannyy Shar may not be visible from seaward and the lagoon may be mistaken for the S entrance of Proliv Kostin Shar. In addition, the high land rising S of the lagoon somewhat resembles Savina Kovriga. Consequently, vessels bound for the S entrance of Proliv Kostin Shar should use caution in this vicinity.

4.16 Mys Kostin Nos (70°56'N., 53°03'E.), the S extremity of Ostrov Mezhdusharskiy, is located 7.2 miles NW of Mys Chernyy. This point is formed by a bold and dark-colored headland, 11m high.

Breakers have been reported to occur in the vicinity of this headland and vessels should not approach within 2.5 miles of it.

Between Mys Kostin Nos and the S end of the shingle ridge forming the W side of Obmannyy Shar, 5.5miles N, the W coast of the island is bold and 7 to 15m high. Its appearance is uniform, being dark brown in color with black cliffs in places. Snow sometimes lies throughout the summer at the foot of these cliffs.

A beacon, 9m high, stands on one of three conspicuous conical hillocks rising 3.5 miles N of Mys Kostin Nos. A conspicuous log house is situated on the neck forming the W side of Obmannyy Shar. The coast extending N of this neck is steep and higher. A prominent cairn stands 17 miles NNW of Mys Kostin Nos.

Mys Shadrovskiy (71°19'N., 52°16'E.), the NW extremity of Ostrov Mezhdusharskiy, is dark-colored and eroded. A beacon, 8m high, stands on this point.

4.17 Proliv Kostin Shar (70°55'N., 53°17'E.) is wide and little encumbered by islands or dangers for several miles within each entrance. However, the central part of the strait is obstructed by numerous islands, rocks, and shoals. Due to the intricacy of the channels and incomplete surveys, local knowledge is required for navigating in this area. With the exception of a few unlighted beacons, the only navigational aids are situated at the entrances of the strait and in the NW part.

One of the principal settlements in Novaya Zemlya is situated on the E shore of Guba Belush'ya (71°28'N., 52°20'E.), a bay, which is entered on the N side of the strait.

The fairway channel within the strait has depths of 11 to 31m in its SE part and 22 to 53m in its NW part.

The S entrance of the strait lies between Mys Chernyy (70°52'N., 53°21'E.) and Mys Kostin Nos. Inside this entrance, the strait widens to form an extensive basin which affords anchorage. The bottom is formed of mud with good holding ground. A swell enters this basin during SW winds, but it does not reach the N part.

4.18 Ostrov Bashmachnyy (70°54'N., 53°31'E.), a steep-sided and narrow island, lies close off the S side of the strait and is joined by a narrow, drying spit to a point located 4.5 miles ENE of Mys Chernyy. Mys Bashmachnyy, the NW extremity of the island, is steep-to and surmounted by a beacon, 7m high. The section of the strait lying SW of this island has not been fully examined.

Guba Bashmachnaya (70°53'N., 53°40'E.), a narrow inlet, is entered between two points which lie 5.5 and 6.5 miles E of Mys Chernyy. A conspicuous cairn stands on the W entrance point. The middle of the fairway leading from the entrance to the head has depths of 11 to 17m.

4.19 Mys Tudera (71°03'N., 53°32'E.), a bluff headland, is located on the E side of the strait, 12 miles NNE of Mys Chernyy. This headland is fringed by below-water rocks and Ostrov Kazarinov, a small islet, lies close NW of it. Ostrov Zhemchug, another small islet, lies 2.8 miles S of the point. A shoal of unknown extent lies between this islet and Mys Bashmachnyy. It has a least depth of 6.4m and lies centered 1.5 miles SSW of the islet.

Mys Palets (71°05'N., 52°31'E.), the NW extremity of Poluostrov Palets, is located 1.8 miles N of Mys Tudera and is steep-to. The coast between forms a bight in which there are depths of 12 to 18m.

Ostrova Alebastrovyye (71°04'N., 53°25'E.), a group of three conspicuous white islands, lies W of Mys Tudera and Poluostrov Palets. The channel lying E of these islands is 1 mile to 1.8 miles wide and has depths of 7 to 10m in the fairway. The largest island of the group consists of two steep-sided parts connected by a low isthmus. Several above-water

rocks, dangerous rocks, and shoals, with depths of less than 5m, lie within 3 miles of this group.

Mys Krestovyy (70°57'N., 53°11'E.), the E extremity of Ostrov Mezhdusharskiy, is located 2.5miles ENE of Mys Kostin Nos. This point is dark-colored, precipitous, and surmounted by two crosses. Several above-water rocks, shallow rocks, and shoal patches, with depths of less than 5m, lie within 7 miles of the point.

The W side of the strait trends NW and NNW for about 5 miles from Mys Krestovyy to the S end of the shingle spit which forms the E side of Obmannyy Shar. This stretch of coast is shelving in the S part, becoming steep as it approaches Obmannyy Shar. The shingle spit extends N for about 2.5 miles to the edge of the narrow channel which leads to Obmannyy Shar. Between the N end of the shingle spit and Mys Kit, 5.5 miles NNE, a number of bluff points project from the coast.

Between Mys Krestovyy and Mys Klyuv, a bank, with depths of less than 18m, fronts the coast and extends up to 5 miles offshore.

4.20 Guba Propashchaya (71°07'N., 53°29'E.), a very indented bay, extends 15 miles NNE from Proliv Kostin Shar. Its entrance lies between Mys Palets and Mys Geologicheskiy, 6.2 miles NNE. This bay is encumbered with many islets, above-water rocks, and dangers.

Ostrov Kruglyy (71°07'N., 53°28'E.), a hilly island, lies in the entrance to the bay. It is almost divided into two parts by Guba Glubokaya, which indents the NW side of the island between Mys Ostryy, the NW extremity, and Mys Vkhodnoy, the N extremity. The shore of this bay is low, but the other coasts of the island are steep. A hill, 55m high, rises in the SW part of the island and is surmounted by a beacon.

A shoal, with depths of 0.9 to 3.9m, lies about 2 miles NW of Mys Ostryy and a small islet lies on it. A shoal patch, with a depth of 7m, and another patch, with a depth of 8.8m, lie about 1.2 miles WSW and 2.5miles WNW, respectively, of the same point.

The southernmost channel leading into Guba Propashchaya has a least depth of 7.3m and is entered between Poluostrov Palets and the SW side of Ostrov Kruglyy. It rounds the S end of the latter island and then trends NE into the bay. The least depth in the fairway lies between a sunken spit, which extends about 200m S from the S extremity of Ostrov Kruglyy, and an above-water rock, which lies about 0.6 mile SE of the same point. Broken water appears over the spit and ripples have been observed even in calm weather.

On the S side of the channel, three coves lie between Poluostrov Palets and Mys Krutoy, the N extremity of a peninsula. The westernmost cove has depths of 8 to 12m in the outer part and 4.8m at the head. Its bottom consists of mud and stones. A spit extends N for about 0.3 mile from the head of this cove and another spit extends about 200m E from its W shore. The middle cove has depths of 23m in the outer part and 11m near the head. Its bottom consists of mud and stones. The easternmost cove has depths of 12 to 20m off the entrance and 10m in the entrance. Its bottom consists of mud in the outer part and rock in the inner part.

The SE part of Guba Propashchaya consists of an arm which extends SE for about 6 miles. It is entered between Mys Krutoy and a point 2.8, miles NE. An islet, surrounded by foul ground, lies 1.8 miles ESE of Mys Krutoy and a shoal, with a depth of 7.3m, lies 1.2 miles ESE of it. The arm has depths of 40m in the entrance and 10m near the head.

The northernmost channel leading into Guba Propashchaya is entered between **Mys Geologicheskiy** (71°11'N., 53°26'E.) and Mys Vkhodnoy. It is 1.2 miles wide and leads SE along the NE side of Ostrov Kruglyy.

Poluostrov Mednyy projects 3.5 miles S from a point on the N shore of the bay located 3 miles E of Mys Geologicheskiy. A bank, with depths of less than 10m, lies between Mys Geologicheskiy and Poluostrov Mednyy. This bank extends 1.5 miles offshore and several islets lie on it. A shoal, with a depth of 4.8m, lies in the middle of the entrance to the channel, N of Mys Vkhodnoy. A shoal, with a depth of 7.3, and another shoal, with a depth of 8.8m, lie in the middle of the channel, about 1.5 miles ESE and 3.8 miles SE, respectively, of the same point.

The E part of Guba Propashchaya, which has several branches, is entered between the S extremity of Poluostrov Mednyy and the NE entrance point of the SE arm of the bay, 1.2 miles S. This part has very irregular depths which range from 6.7 to 104m.

4.21 The central part of Proliv Kostin Shar lies between Mys Geologicheskiy and the SE entrance point of Guba Taynaya, 10.2 miles NNW. The only appreciable indentation of the coast along the E side of the strait is Guba Nekhvatova (Bukhta Nekhvatov) which lies near the middle of this stretch. This cove consists of two parts connected by a narrow passage, 48m wide, and is accessible only to small craft with local knowledge. An islet lies in the outer part of the cove and several streams flow into the inner part. Several log houses are reported to stand on both sides of the cove and are prominent from the outer entrance.

Ostrov Timofeyeva (Ostrov Dolgi) (71°31'N., 53°24'E.) lies with its SE extremity located 3.2 miles NW of Mys Vkhodnoy. This island parallels the E side of Proliv Kostin Shar at a distance of 1.5 to 2 miles offshore. It is 20 to 31m high, flat, and steep-sided except at the N end where it terminates in a narrow spit.

Ostrova Bogdanova, formed by two islets, lies almost midway between Ostrov Timofeyeva and Mys Vkhodnoy. A shoal patch, with a depth of 5.5m, and another patch, with a depth of 4.2m, lie about 1.2 miles SW and 1.5 miles W, respectively, of the N extremity of Ostrov Timofeyeva.

4.22 Ostrov Sobachiy (71°18'N., 53°19'E.), the largest island in the central part of Proliv Kostin Shar, lies 1.5miles N of the N extremity of Ostrov Timofeyeva. This island extends NW for 6.8 miles from its SE extremity and a cove indents its NW side. An islet is located 0.8 mile N of the W entrance point of this cove and a large above-water rock lies close S of it.

Proliv Uzkiy separates Ostrov Sobachiy from the coast of Novaya Zemlya and from Ostrov Ter-Tyre, which lies close

NE of it. This passage, which is about 0.2 mile wide at its narrowest point, has depths of 25 to 49m in the fairway. Vessels passing through it should keep in the middle of the channel in order to avoid the small spits that project from each side.

Proliv Shirokiy separates Ostrov Sobachiy from **Ostrov Glotova** (71°18'N., 53°13'E.), which is mainly hilly and steep-sided. The passage, which is narrowed by spits extending from both islands, has a least width of 0.2 mile.

4.23 Ostrov Dvoynoy (71°17'N., 53°08'E.) lies W of Ostrov Glotova and is separated from it by Proliv Kitovyy. This channel has a least width of 0.5 mile and depths of 7m in its S part and 40m in its central part. An above-water rock lies in the middle of the NW end of the channel. Ostrov Dvoynoy consists of two parts joined by a narrow isthmus. The coast of the island is steep except on the E side of the N part.

Ostrov Uzkiy, a low and narrow islet, lies 1 mile SE of the S extremity of Ostrov Dvoynoy. A shoal, which has not been examined, lies about midway between the islands. A vessel, with a draft of 5.5m, has reported (1935) touching bottom on this shoal.

Ostrov Plesh, a steep-sided islet, lies 0.8 mile N of Ostrov Dvoynoy and its N end is steep-to.

Ostrova Bratany (71°20'N., 53°06'E.), formed by two small and conspicuous islets, lies 0.8 mile NNW of Ostrov Plesh.

Ostrov Bezymyannyy (71°22'N., 53°02'E.) lies with its S end located 2 miles W of the NW extremity of Ostrov Sobachiy. This island is hilly, 30m high, and another island lies 0.8 mile NE of it.

Guba Taynaya (71°20'N., 53°20'E.) recedes N between a point, located 4.2 miles NNW of the NW entrance point of Guba Nekhvatova, and another point, lying 3 miles N of the NW extremity of Ostrov Sobachiy. Ostrov Ter-Tyre, a hilly island with steep sides, lies in the middle of the entrance of this bay and is marked by a beacon. Narrow channels lead into the bay at both sides of this island, but vessels should use the one at the SE end. The bay, in which there are a number of islands, extends inland for about 12 miles.

4.24 Guba Pomorka (71°25'N., 52°52'E.) lies between two peninsulas which project from the N side of Proliv Kostin Shar. Poluostrov Pyrney, the E peninsula, extends 6 miles S and terminates in a point which lies 1 mile WSW of the NW extremity of Ostrov Bezymyannyy. Poluostrov Pomor, the W peninsula, extends 3.5 miles SSE and terminates in Mys Pomor-Sale which lies 3 miles NW of the S extremity of Poluostrov Pyrnes. This peninsula is hilly and strewn with rocks. A hill, 167m high, rises at the inner end of Poluostrov Pomor. It is the tallest in this vicinity and has the appearance of a blunt cone standing on a broad base.

The entrance of Guba Pomorka lies between Mys Pomor-Sale and the W side of Poluostrov Pyrney. From the latter, a narrow projection extends NW for about 1.5 miles into the bay. Both sides of this projection and the W side of the bay are steep. Two islets lie in the bay and three channels lead from the head. The easternmost channel leads to a narrow fjord and the other two lead to a lake. A shoal patch, with a depth of 3.4m, lies in the E part of the bay entrance.

4.25 Guba Zayach'ya (71°27'N., 52°42'E.), which has not been fully surveyed, lies between the NNW part of Poluostrov Pomor and Poluostrov Rogachev. Mys Chernyy, the S extremity of the latter peninsula, is located 4.2 miles WNW of Mys Pomor-Sale. The bay entrance is 1.8 miles wide and lies between a point, located 2.5 miles NW of Mys Pomor-Sale, and Mys Chernyy. The E and W sides of the bay are mainly steep. The E side of the head is formed by a narrow isthmus which separates Guba Zayach'ya from Zaliv Rogacheva. An islet lies near this isthmus.

The bay is exposed to winds from between SE and SW, but small craft can anchor in a small and sheltered cove which is entered N of the E entrance point.

Zaliv Rogacheva is entered between the W extremity of Poluostrov Rogachev and **Mys Morozova** (71°28'N., 52°27'E.), 3 miles W. It is incompletely surveyed and should not be entered without local knowledge. A cove, with a depth of 20m and a mud bottom, is entered between the E entrance point of this bay and another point, 1.2 miles NE.

The E side of Zaliv Rogacheva is high with mountains rising to heights of over 300m. Mys Morozova is the S extremity of a peninsula which separates the S part of this bay from **Guba Belush'ya** (71°28'N., 52°20'E.). Two lagoons lie on this peninsula and are separated from the bays, on either side, by low, narrow isthmuses. Several islands lie in the bay, but the depths in the channels leading between them have not been accurately determined.

Between **Mys Kit** (71°08'N., 53°14'E.) and Mys Makarova, 5.8 miles N, the W side of Proliv Kostin Shar forms two bights which are separated by a narrow peninsula. This peninsula lies about midway along this stretch of coast and projects 0.8 mile E from Ostrov Mezhdusharskiy. Its steep E extremity is known as Mys Malyy Kit.

Mys Kit is bold and a conspicuous hill, 46m high, rises close NW of it. The S part of the coast between this point and Mys Malyy Kit is 9 to 20m high and steep. The N part consists of a narrow ridge which separates the strait from a lake. Between Mys Malyy Kit and Mys Makarova, the coast is shelving except about midway between the points where a steep bluff rises and is backed by a hill, 61m high.

Ostrov Treskina (Ostrov Gagachiy) lies 1 mile ESE of Mys Malyy Kit. This island is steep, narrow, and large above-water rocks lie off its N and S ends. A bank, with depths of less than 11m, connects the island to Mys Malyy Kit and extends about 1 mile NE and 1.5 miles N from the point.

4.26 Mys Makarova (71°14'N., 53°14'E.), a high and steep headland, is the E extremity of the peninsula which is known as Poluostrov Makarova. The N part of this peninsula is lower that the S part and a conspicuous hill, 50m high, rises near its center.

Guba Makarova is entered between the NW extremity of the peninsula and a point, 2 miles NW. It extends SW for about 2 miles and then trends NW for about 9 miles in the

form of an irregular, narrow fjord. This bay has not been surveyed, but is reported to be shallow.

4.27 Mys Tsivol'ki (71°23'N., 52°49'E.), a low point, is located 8.5 miles NW of the NW entrance point of Guba Makarova. The coast between is formed by an almost continuous cliff. Beacons stand 0.8 mile WNW of the NW entrance point of Guba Makarova and 0.8 mile S of Mys Tsivol'ki.

The NW part of Proliv Kostin Shar is entered from seaward between **Mys Shadrovskiy** (71°19'N., 52°16'E.) and Mys Yuzhnyy Gusinyy Nos, 10.8 miles NW.

The NW coast of Ostrov Mezhdusharskiy trends NE for 8 miles between Mys Shadrovskiy and the NW extremity of Poluostrov Yartsev. This section of coast is precipitous and several points, 20m high, project from it. Mouths of streams and shingle beaches lie in the slight indentations formed between these points. A bight, lying close SW of Poluostrov Yartsev, is separated from a fresh-water lake and a salt water lagoon by narrow strips of driftwood-covered beach. A spit, with a depth of 5.5m near its outer end, extends about 1.8miles NW from a point located 2.2 miles NE of Mys Shadrovskiy.

4.28 Poluostrov Yartsev (71°23'N., 52°36'E.) projects 1 mile NW from the coast and its sides are cliffy and about 20m high. Three above-water rocks lie close off the NW extremity of this peninsula. The middle rock is very conspicuous from the W.

Ostrov Yartsev lies with its S end located 0.5 mile NW of the NW extremity of Poluostrov Yartsev. This island is 30m high and extends 2.2 miles NNW. With the exception of the middle part of its E side, the coast of this island is precipitous. A small cross stands near the S end of the island and a cairn is situated near the N end. A spit, with depths of less than 11m, extends about 1.2 miles NNW from the N end of the island.

Zaliv Val'kova, the largest indentation on the N coast of Ostrov Mezhdusharskiy, is approached on the S side of the N part of Proliv Kostin Shar between the NW extremity of Poluostrov Yartsev and **Mys Val'kova** (71°24'N., 52°44'E.), 2.5 miles ENE.

Ostrov Val'kov, a narrow island, lies near the middle of the approach to this inlet and its NW extremity is fronted by a small islet. Two hills, each 31m high, stand on the N part of the island and a cross is situated near the S end.

The W entrance point of Zaliv Val'kova, surmounted by two crosses, is formed by the N extremity of a small, narrow peninsula which projects from a point on the coast located 1.5 miles SE of the NW extremity of Poluostrov Yartsev. The inlet entrance is 1 mile wide and the shores are generally steep. The central part has depths of 11 to 18m over a bottom of sand. The inlet is exposed to NW winds and vessels should give the foul ground fronting the W entrance point a wide berth.

4.29 Mys Yuzhnyy Gusinyy Nos (71°27'N., 51°56'E.), located on the mainland, is a rocky cape which is higher than the adjacent coast.

Ostrov Podrezov (71°26'N., 51°58'E.), lying 2 miles SSE of the cape, is a flat and steep-sided islet which is fronted by a reef on its S side. A rocky ledge, with a steep-to W edge, extends about 0.4 mile W from this islet. A bank, with a least depth of 3.7m, extends about 1 mile N from the islet. A light is shown from a structure, 18m high, standing on the islet. Vessels are advised to pass at least 1.5 miles S of this islet and should not attempt to pass N of it.

Between Mys Yuzhnyy Gusinyy Nos and Mys Lil'ye (Mys Lil'e), a dark-colored point 7.2 miles E, the N side of Proliv Kostin Shar forms two bights.

Mys Sredniy Gusinyy (71°27'N., 52°07'E.), a conspicuous and high point, is located between these two bights, the easternmost of which is very shallow. The lighthouse that used to stand on Mys Lil'ye has been reported (2010) destroyed.

4.30 Guba Belush'ya (71°28'N., 52°20'E.), entered between Mys Lil'ye and Mys Morozova, affords anchorage for vessels of any size. From its entrance, which is about 3 miles wide, this bay extends 6.5 miles NNW. Both sides of the bay are composed of slate and are without vegetation. The fairway channel has depths of 29m in the entrance and 11m near the head. Range lights are shown from structures standing on the NW, N, and E sides of the bay.

The prevailing winds in the bay are N and NW and are of moderate force. Winds from the W and SW are seldom very strong. The most dangerous strong wind is the bora which usually blows from between E and ENE. No strong currents have been observed in the bay. The time at which the bay is clear of ice depends on the wind, but it is usually ice-free by the end of June. Winds from the N drive the ice out of the bay, but S winds force the ice coming through Proliv Karskiye Vorota from the Kara Sea into it. The bay usually freezes over at the latter part of October or the beginning of November.

The W shore of the bay is 26m high near Mys Lil'ye, but rapidly decreases in height to the N. Mys Chernoye Sedlo, located 5 miles NNW of Mys Lil'ye, is a conspicuous, high, and saddle-shaped point. Another similar point is located 0.5 mile NE. A rocky bank, with depths of less than 11m, extends about 0.8 mile SE from Mys Chernoye Sedlo.

The E shore of the bay is rocky and generally higher than the W side. Mys Astronomicheskiy, a rocky point, is 7 to 9m high and projects from the E side of the bay, 5 miles NW of Mys Morozova. A rocky bank, with depths of less than 5m, extends about 0.2 mile W from this point. A stone beacon, 13m high, stands on the point and marks an observation spot. Several islets and islands lie at the head of the bay.

4.31 A polar station and settlement, with a number of houses and several other buildings, stand on the E coast of Bukhta Samoyed. There is a wooden wharf, 61m long, with a depth of 4.9m alongside.

A stone cairn, with a mast, stands on the NW slope of a hill, 1.5 miles N of the beacon on Mys Astronomicheskiy. This cairn and the beacon bear 003°04' in line and can be used for compass adjustment.

Ostrov Bazarnyy bearing about 050°, distant 1 mile

Vessels can anchor anywhere in the N part of Guba Belush'ya, clear of the shallow water bordering the shore. The bottom provides good holding ground and consists of mud in the central part of the bay and rock, stones, or sand near the shore. Only S winds, which blow infrequently in summer, raise any sea in the bay, but little swell is felt near the head.

A former mined area, located in the N part of the bay, is bounded by lines joining the following positions:

a. 71°31'02.4"N, 52°15'56.4"E.
b. 71°31'02.4"N, 52°18'40.8"E.
c. 71°29'56.4"N, 52°20'13.8"E.
d. 71°29'56.4"N, 52°17'34.8"E.

Bukhta Samoyed, lying 0.5 mile NNE of Mys Astronomicheskiy, affords good anchorage in depths of 5 to 7m, mud. Vessels should anchor on the alignment of the lighted range situated at the E side of the bight as the depths decrease rapidly to the N. Vessels anchoring off the SE side of this bight can secure their sterns to the shore.

The W side of the broad peninsula known as **Gusinaya Zemlya** (71°50'N., 51°26'E.) is cliffy and, with the exception of its N part, is steep-to. Numerous streams discharge into the sea along this stretch of coast, but there are no large indentations. Hills, 19 to 40m high, rise near the coast and higher hills stand inland. The mouth of Reka Sauchikha, lying 10 miles NW of Mys Yuzhnyy Gusinyy Nos, appears as a conspicuous gorge in the coastal cliffs.

Sauchikha Beacon (71°35'N., 51°35'E.), 16m high, stands on the S side of the mouth of the above gorge. The structure is equipped with a radar reflector.

4.32 Mys Severnyy Gusinyy Nos (72°09'N., 51°51'E.), 9 to 12m high, is the N extremity of a steep headland which projects N from Gusinaya Zemlya.

A conspicuous and flat-topped hill, surmounted by a cairn, rises near the point. A light is shown from a square tower, 18m high standing 1.5 miles SSE of the point. The tower is equipped with a radar reflector.

Shoals, which break, extend an unknown distance NW from Mys Severnyy Gusinyy Nos. A rock, which dries, and a shoal, with a depth of 8.8m, lie about 4.5 miles NW and 3.8 miles NE, respectively, of the point. Two drying patches, located 2 miles apart, lie about 5 miles W of the point.

Vessels are advised not to approach within 6 miles of Mys Severnyy Gusinyy Nos as the dangers in this vicinity are steep-to on their seaward sides and soundings give no warning of their proximity.

Zaliv Mollera (72°25'N., 52°00'E.) recedes to the E between Mys Severnyy Gusinyy Nos and Mys Britvin, 35 miles NNE. Many islands and dangers lie within this extensive bay and numerous coves and inlets indent the shore. Hills, up to 280m high, stand along the E side of the bay. There are no conspicuous peaks, except for Gora Verblyuzh'ya, 466m high, which rises 15 miles E of Mys Severnyy Gusinyy Nos.

Zaliv Mollera has not been completely surveyed and its SE part has not been examined. The depths in the bay are very irregular and the bottom consists of sand, pebbles, and mud in places. During thick weather with strong W winds, vessels should keep 15 to 20 miles off the shores of this bay and in depths of not less than 70 to 90m.

Between Mys Britvin and Mys Stolbovoy, 45 miles NE, the coast is mostly precipitous, the N part being lower than the S. Several mountains stand inland. Two bays and several smaller bights indent this stretch of coast.

A current, which sets N and attains a rate of 0.5 knot, has been observed off this part of the coast, between Mys Britvon (72°42'N., 52°25'E.) and **Ostrov Golets** (73°03'N., 53°07'E.).

The depths off this part of the coast are irregular and there are large unexamined areas. A shoal, with a number of rocks, lies about 3 miles S of the S extremity of Mys Britvin. The extent and depths over this shoal are unknown, but seas break heavily on it during fresh winds. Shallow patches lie N and S of this shoal and vessels should keep well clear.

4.33 Guba Lutke (72°06'N., 52°03'E.) is entered between Mys Severnyy Gusinyy Nos and **Mys Nikol'skiy Nos** (72°07'N., 52°11'E.), 6.5 miles ESE. This bay is open to the N and breakers have been observed in the outer part, about 0.5 mile W of the E entrance point.

Guba Obsed'ya (72°04'N., 52°21'E.), which forms the SE corner of Zaliv Mollera, is entered between Mys Nikol'skiy Nos and a point, 3.5 miles ESE. This bay is encumbered by numerous rocks and islets.

Mys Korel'skiy (72°16'N., 52°27'E.) is located 10 miles NNE of Mys Nikol'skiy Nos. The coast between, at the E side of Zaliv Mollera, is fringed by numerous islands and rocks, and indented by several coves and inlets, which are accessible only to small craft with local knowledge. Ostrov Rudakova, the largest of these islands, lies with its S extremity located 3.2 miles ENE of Mys Nikol'skiy Nos. Above and below-water rocks, on which the sea breaks, extend about 1.5 miles WNW from the N part of this island.

Guba Khramtsova is entered between Mys Korel'skiy and Mys Deploranskogo, 5.5 miles NNE. This rather large bay is

encumbered by islets and dangers, and is of no navigational importance. The NE side of the bay is formed by Poluostrov Khramtsova, on which stand several small hills, 18 to 24m high. This peninsula terminates, at the NW end, in Mys Deploranskogo, a low spit with rocks and foul ground extending up to 1 mile NW of it.

4.34 Ostrov Khramtsova (72°20'N., 52°32'E.) lies W of the outer extremity of Poluostrov Khramtsova and is separated from it by a narrow strait. Two conspicuous hillocks stand on this island and a cross is situated on its narrowest part. A reef, partly above water, extends about 0.5 mile NW from the NW extremity of the island and is covered with breakers during fresh winds.

Guba Domashnyaya is entered 3 miles ESE of Mys Deploranskogo. This inlet has a narrow entrance, which is accessible only by boats and fronted by sand banks.

Ostrov Karmakulskiy (72°23'N., 52°39'E.), the largest island in the approaches to Mys Karmakuly (72°23'N., 52°43'E.), lies with its SW extremity located 0.8 mile NE of Mys Deploranskogo. This island is irregular in shape and consists of two parts connected by a low and narrow isthmus. Several hills, 30 to 38m high, stand near the S and NW extremities of the island.

Ostrov Blizhniy (72°22'N., 52°41'E.) is the largest and easternmost of a group of small islands located SE of Ostrov Karmakulskiy. The N end of this island lies 0.5 mile S of the SE extremity of Ostrov Karmakulskiy. The islands of this group, like the others in this vicinity, are dark-colored and comparatively low.

4.35 Ostrov Bazarnyy (72°25'N., 52°41'E.), a narrow and moderately-high island, lies 0.5 mile N of the N extremity of Ostrov Karmakulskiy.

A rocky patch, with a least depth of 7.3m, lies about 1 mile NW of Mys Deploranskogo. A large shoal area, on which the sea breaks, extends about 1 mile W from Ostrov Karmakulskiy. This area is steep-to, but its outer limit has not been accurately determined. In this vicinity, vessels should not approach Ostrov Karmakulskiy within depths of less than 36m.

A rocky patch, with a least depth of 7.2m, lies about 0.2 mile N of the NW extremity of Ostrov Karmakulskiy. Banka Ignat' yeva, a rocky area, has a least depth of 3.9m in its S part and lies about 0.6 mile N of this patch.

Reefs, with depths of 1 to 3m, extend about 0.2 mile W and 0.3 mile SW from Ostrov Bazarnyy. A shallow spit fronts the S end of this island.

Nayezdnik Beacon (72°24'N., 52°38'E.), 9m high, stands near the NW extremity of Ostrov Karmakulskiy.

4.36 Malyy Karmakuly (72°23'N., 52°43'E.), a settlement and polar station, is situated on a small mainland promontory which terminates to the N in Mys Priyuta. It is the oldest Russian settlement in Novaya Zemlya. It consists of a few log houses and a storehouse. The inhabitants are Nyentsy, or Samoyedes and Russian hunters.

Winds—Weather.—Boras occur frequently at the station. During the summer, these strong winds blow from ESE and usually last for 1 to 2 days. In winter, these winds are of a longer duration.

Ice.—From observations made over a period of 6 years, the mean date for the first appearance of ice in the roadstead off the Malyy Karmakuly was October 24. In the open sea off the settlement, ice first appeared on November 25. The mean dates for the close of navigation, breakup of the ice, opening of navigation, and final disappearance of the ice in the roadstead were, respectively, November 10, June 17, June 26 and July 13. The mean dates for the close of navigation, opening of navigation, and final disappearance of the ice in the open sea in the vicinity were, respectively, December 30, May 25, and June 5.

Aspect.—When seen from a distance to the W, the land in the vicinity of Malyy Karmakuly has few conspicuous features. The hills near the coast rise to heights of 180 to 210m and are uniform in appearance. In clear weather, the entrances of Guba Domashnyaya and Guba Bol'shaya Karmakul'skaya, the latter lying 7 miles N of the settlement, appear as gaps in the coastal hills. Ostrov Bazarnyy, which is covered with guano, is often seen as a prominent white patch against the land, especially when the visibility is poor. Three fissures in the cliffs of this island have the appearance of dark streaks when seen from a short distance seaward. The storehouse in Malyy Karmakuly can be seen from the NW across the isthmus joining the two parts of Ostrov Karmakulskiy.

4.37 Farvater Promorskiy (72°24'N., 52°43'E.), the principal channel from the N, leads S of Banka Ignat'yeva, between **Mys Nordovyy Karmakulskiy** (72°24'N., 52°40'E.) and Ostrov Bazarnyy, and then to the roadstead of **Reyd Nayezdnika** (72°24'N., 52°42'E.). This channel is indicated by a lighted range and has a least depth of 14.6m on the alignment as far as the roadstead.

Another channel, which leads S from seaward to Reyd Priyutskiy, passes between Ostrov Karmakulskiy and the reefs extending N from **Ostrov Dal'niy** (72°22'N., 52°39'E.) and **Ostrov Sredniy** (72°22'N., 52°40'E.). It then passes between Ostrov Blizhniy and a shoal lying between that island and the SE extremity of Ostrov Karmakulskiy. This channel has a least depth of 5.8m, but is not marked and should only be used by vessels with local knowledge.

Reyd Nayezdnika lies NE of Ostrov Beluzhiy, between Ostrov Karmakulskiy and the mainland. This roadstead has depths of 20 to 24m over a bottom of mud. The S part of this roadstead, lying E of Ostrov Beluzhiy, has depths of 4.6 to 9m, is well sheltered, and is known as Reyd Pomorskiy.

Reyd Priyutskiy lies W of Malyy Karmakuly, but this roadstead is not secure during strong winds. Vessels should anchor, in depths of 13 to 16m, mud over rock, about 300m offshore and W of the storehouse at the settlement.

Caution.—During darkness or in thick weather, vessels from seaward approaching the coast in the vicinity of Malyy Karmakuly should keep in depths of at least 35m.

4.38 Guba Srednyaya (72°26'N., 52°43'E.), lying within Zaliv Mollera, is entered between a point, located 1 mile N of **Mys Fefelova** (72°24'N., 52°42'E.), and the S extremity of

Poluostrov Poluektova, 1 mile N. This bay is divided into two parts by two peninsulas which extend from its N and S sides. The inner part of the bay consists of two coves which have shelving shores. The entrance to the NE cove is encumbered by two small islets.

A reef, which breaks, lies about 1 mile W of the S entrance point of Guba Srednyaya.

Poluostrov Poluektova (72°27'N., 52°42'E.) is located between Guba Srednyaya and the entrance to Guba Bol'shaya Karmakul'skaya. This peninsula is 19 to 25m high and appears fairly level from seaward. Mys Moiseyeva, the N extremity of the peninsula, is formed by a gently sloping point. A hill rises close E of the isthmus which joins the peninsula to the mainland. It is 116m high and shaped like a truncated pyramid.

Ostrov Poluektov (Ostrov Poluektova), fringed by reefs, lies 1 mile NNW of the S extremity of Poluostrov Poluektova and about 0.2 mile offshore. Although small, this islet is very prominent.

Guba Bol'shaya Karmakul'skaya (72°32'N., 52°48'E.), an extensive inlet, is entered between Mys Moiseyeva and Mys Dmitrieva, 3 miles NNW. The width of this inlet is reduced to about 0.5 mile by a peninsula extending from the SE side, 4.5 miles NE of Mys Moiseyeva. The inlet then trends 4 miles ENE and 4 miles ESE to its head. The S side of the outer part of the inlet has numerous indentations. Within the inlet, the shore rises to heights of 150m in places, but is shelving at the head. Ostrova Melkiye and numerous shoals lie in the outer part of the inlet and two islands lie near the narrow part. During fresh W winds, the sea breaks on the outer shoals. A reef, partly above water, extends about 0.2 mile SW from Mys Dmitrieva.

Although the entrance to Guba Bol'shaya Karmakul'skaya is greatly encumbered by islets and shoals, a fairway channel, with depths of 11 to 29m, is reported to lie about 0.2 to 0.4 mile off the S side of the entrance and pass S of all the dangers. A cove, entered at the E side of the N part of the inlet, affords shelter to vessels with local knowledge. Vessels can anchor, in depths of 5 to 11m, mud, about 0.5 mile W of the remains of an abandoned settlement which is situated on the E side of this cove.

4.39 Guba Rassol'naya (72°34'N., 52°43'E.) is entered between a point, located 2 miles N of **Mys Dmitrieva** (72°32'N., 52°43'E.), and the S extremity of a peninsula, 2.5 miles N. A rocky patch, with a depth of less than 1.8m, lies about 1.2 miles WSW of the S entrance point of this bay. A group of above-water rocks lies in the entrance and numerous other rocks, both below and above-water, lie in the bay and fringe the coast to the S. During fresh onshore winds, breakers appear throughout most of this bay.

Zaliv Pukhovyy (72°38'N., 52°40'E.) is entered between the W extremity of the peninsula, which forms the N side of Guba Rassol'naya, and **Mys Bazarnyy** (72°39'N., 52°39'E.), a steep and dark-colored point, 2.5miles NNW. This inlet extends inland for 10 miles in a general E direction. Its shores are mostly steep and indented by a number of bights fringed with sandy beaches. The land rises from the shores to heights of up to 150m, but there are no conspicuous summits.

Two narrows divide this inlet into three parts which are of nearly equal length. The outer part of the inlet is sheltered, to some extent, by Ostrov Pukhovyy, the S end of which lies 0.8 mile WNW of the S entrance point. This island, which is marked by a beacon, can be identified by its light gray and guano-covered sides and by its bluff S end. However, it is not easily distinguished against the background of the mainland. The island is steep-to, flat, and has a gradual downward slope from S to N. A reef, awash, extends about 0.5 mile N from its N extremity. This reef is clearly visible when the water is smooth and broken water appears on it in the slightest sea.

Several dangers lie in the approach to Zaliv Pukhovyy including a shoal, which lies about 4 miles W of Mys Bazarnyy. This shoal, known as Banka Britvinskaya, has not been fully examined nor its limits determined and should be given a wide berth. A number of rocks lie on the shoal and the sea breaks heavily over it during fresh winds.

The depths in the W part of Zaliv Pukovyy are very irregular. Several islets, rocks, and shallow shoals lie in this part of the inlet. The passage lying between Ostrov Pukhovyy and the S side of Zaliv Pukhovyy is almost completely obstructed by dangers. However, a channel, with depths of not less than 10m, leads from the passage, between Mys Bazarnyy and Ostrov Pukhovyy, to that part of the inlet lying between the two narrows. This channel is narrow, winding, and very difficult to navigate.

Zaliv Pukhovyy widens to the E of the narrows and forms a basin in the middle of which lies a small islet. The bottom in this part of the inlet is quite even and consists of mud. Depths of 11 to 13m lie in the central part of the basin, except in the vicinity of the islet. The E part of the inlet is of no navigational importance.

Vessels may anchor, in depths of 11 to 13m, rocks, SE of a log house which stands 0.5 mile N of Mys Bazarnyy. During E winds, which are usually very strong, this anchorage is dangerous and during S and W winds, it is exposed to a heavy swell. Vessels approaching the anchorage should keep somewhat closer to Mys Bazarnyy than to Ostrov Pukhovyy in order to avoid the reefs extending N from the latter. Care should be taken to clear a shoal patch, with a depth of 8.8m, which lies about 0.5 mile ENE of Mys Bazarnyy.

4.40 Mys Britvin (72°42'N., 52°25'E.), located 5 miles NW of Mys Bazarmyy, is formed by a small peninsula, 9 to 12m high, which has three projections. It is joined to the mainland by a low isthmus, on which lies a lagoon. The southernmost projection is cliffy, dark-colored, and conspicuous from the SW. An above-water rock and a rock, awash, lie about 0.2 mile S and 1.8 miles NNW, respectively, of the S extremity of this projection. A light is shown from a prominent structure, 19m high, standing on the extremity of this projection.

When seen from a distance to the NW or N, Mys Britvin has the appearance of a low island surmounted by a hill.

Caution.—Due to the area in the vicinity of Mys Britvin not being completely surveyed, vessels should not approach within 6 miles of this part of the coast.

An ammunition dumping area, which may best be seen on the chart, lies about 60 miles W of Mys Britvin. Anchoring, fishing, or the use of explosives within this area is not recommended.

4.41 Mys Stolovyy (72°48'N., 52°30'E.), a small bluff about midway between Mys Britvin and Mys Chum, has a small bight, with a narrow and sandy beach, close S of it.

Mys Chum (72°51'N., 52°37'E.), 12m high, is very conspicuous from the SSW and NE. From a distance of about 10 miles, this point has the appearance of a low and sandy spit. On the NE side of the point, the coast decreases in height for about 1 mile and then rises and continues ENE in the form of precipitous cliffs, 30 to 40m high. A valley, located 4.5 miles ENE of the point, is reported to be very conspicuous from seaward.

Mys Nordenshel'da (72°54'N., 52°57'E.) is a narrow projection, 3m high. Several hills, with steep slopes on their W and N sides, rise to heights of up to about 260m about 1 mile SE of this point.

Caution.—An above-water rock and a shoal patch, with depth of 8.2m, lie about 2.5 miles N and about 7 miles WNW, respectively, of Mys Nordenshel'da.

A rocky spit, with a depth of 4m at its outer extremity, extends about 5.8 miles N from the W side of Mys Nordenshel'da. Several above-water rocks lie close to the shore about 0.5 mile SW of the same point.

4.42 Guba Bezymyannaya (72°56'N., 53°00'E.) is entered between Mys Nordenshel'da and Mys Krutoy, 3.5 miles NE. For more than 3 miles to the E of the former point, the S side of this bay is bordered by cliffs. A narrow terrace, from which steep mountains rise to heights of up to 350m, lies along the shore, close E of these cliffs. Farther E, mountains, with more gradual slopes. rise inland. The N side of the bay rises to a height of 80m in places. Mys Krutoy is fronted NW by rocks and above-water rocks extend up to 0.8 mile S of the N shore of the bay. The E part of the bay is encumbered with numerous islands and sand banks.

Vessels proceeding into Guba Bezymyannaya should enter only from the N as the S approach is dangerous. Local knowledge is required. Vessels may anchor, in depths of 10 to 12m, between 0.1 and 0.2 mile off a point located on the S side of the bay, 2.8 miles E of Mys Nordenshel'da. A log house is reported to stand on this point and a conspicuous gorge is located close to it.

Mys Ivanova is located 3.2 miles NNE of Mys Krutoy. The coast between forms the W side of a peninsula which separates Guba Bezymyannaya from Guba Gribovaya, the next bay to the N.

Gora Pervousmotrennaya (72°58'N., 53°11'E.), 617m high, rises on this peninsula, ENE of Mys Krutoy. The summit of this dome-shaped mountain is not clearly defined and its SW and NW sides are very steep. The mountain is conspicuous, but its upper part is frequently obscured by clouds. At such times, it can only be identified by the steep W slope.

The character of the coast changes at Gora Pervousmotrennaya. The hills standing near the coast to the S of this mountain are of moderate and uniform height whereas those standing to the N are mostly steep, over 300m high, and rise, in places, abruptly from the sea.

4.43 Guba Gribovaya (73°01'N., 53°16'E.) is entered between Mys Ivanova and the S end of Ostrov Golets, 3 miles NNW. The sides of this bay are formed mainly by a succession of bights separated by bold points.

Mys Astaf'yeva, located 1.5 miles ENE of Mys Ivanova, is the S entrance point of the inner part of the bay. Mys Yegorov, the N extremity of a projection, is located 2 miles ESE of this point.

Mys Studnitskogo is located on the NE side of the bay, 1 mile NNW of Mys Yegorov. A dome-shaped mountain, 658m high, stands 2.2 miles NE of this point and is conspicuous when viewed from the entrance of the bay. Several streams flow into the bay.

Ostrov Golets (73°04'N., 53°06'E.) is low and steep-sided with a slight elevation in the middle. Several above-water rocks lie close off the S end and the W side of this island and a reef extends 0.5 miles S from the S extremity. A shoal patch, with depths of less than 4m, lies about 1.8 miles SE of the S end of the island, but its full extent is unknown. A light is shown from a tower, 13m high, standing near the middle of the island.

4.44 Ostrov Shestakova (73°01'N., 53°14'E.) lies 0.7 mile N of Mys Astaf'yeva and above-water rocks lie about 0.5 mile W and 0.2 mile SE of it. Smaller islets lie 0.2 mile E and 1 mile ENE of this islet.

A shoal, with a depth of 8.2m, lies about 0.3 mile NNE of Mys Astaf'yeva. Ostrov Golitisyna, lying 0.5mile W of Mys Astaf'yeva, is a small islet from which a spit, with a depth of 4.2m at its outer end, extends 0.5 mile N. Ostrov Veselago lies close off the N side of the inner bay, 0.5 mile WNW of Mys Studnitskogo. An above-water rock lies in the middle of the inner part of the bay, about 0.5 mile SSW of Mys Studnitskogo.

The channel leading from seaward to the anchorage in the inner part of the bay has a least depth of 8.2m. However, the narrowness of this channel to the NE of Mys Astaf'yeva restricts its use to vessels with drafts of up to 5.5m. The inner part of the bay has depths of 14 to 31m at the W side and 12 to 17m at the E side. The N part of the bay has not been fully examined, but the depths in that area appear to be very irregular.

When approaching Guba Gribovaya, the S end of Ostrov Golets is conspicuous from the NW, but it merges with the land on the NE side of the bay when seen from the SW. On approaching closer, this island appears as a dark strip against the yellowish background of the land behind it.

Vessels can anchor, in depths of 20 to 31m, fine sand or mud, in the outer part of the bay, about 1.2 miles NNE of Mys Ivanova, but this roadstead is exposed to W winds. An

anchorage lies in the inner part of the bay near the head, NE of Mys Yegerov. It is very sheltered and has depths of 14 to 16m over a bottom of mud.

Mys Dolgiy is located 12 miles NNE of Ostrov Golets. The coast between this point and another point, located 1 mile NNE of Ostrov Golets, is low and bluff. Except for two small bights at the SW end, this stretch of coast has no noticeable indentations. From the shore, the land, which is slightly undulating, extends 5 miles inland and rises gradually to a range of mountains, 360 to 790m high. This part of the coast appears to be steep-to and, except for a few isolated above-water rocks, is mostly clear of dangers.

4.45 Bukhta Otkrytaya (73°15'N., 53°35'E.), which is open to the N, is entered between Mys Dolgiy and a point, 4 miles ENE. From this inlet, the coast then trends ENE for 4 miles to Mys Stolbovoy.

Ostrov Pankov (73°17'N., 53°43'E.), surmounted by a prominent beacon, lies 3.8 miles W of Mys Stolbovoy. This islet is low, flat, light-colored, and steep-to on its seaward side. Two above-water rocks lie in the channel leading between this islet and the mainland. Breakers have been reported in this channel and indicate the probable presence of other dangers.

A shoal, the existence of which is doubtful, has been reported to lie about 10.5 miles W of Ostrov Pankov.

Proliv Matochkin Shar

4.46 Proliv Matochkin Shar, which divides Novaya Zemlya into two parts, is about 55 miles long and, for the greater part of its length, lies between high and mostly rocky mountains. The W entrance of this strait lies between Mys Stolbovoy and Mys Serebryanyy. The E entrance lies between Mys Rok and Mys Vykhodnoy, which is located on the E coast of Novaya Zemlya. In some places, the strait is narrowed by both sides, the average width being about 1 mile. The fairway channel, in several places, is marked by buoys and, for most of its length, indicated by lighted ranges.

Two settlements are situated on the shores of the strait. One stands on the S side near the W entrance and the other on the N side about 7 miles within the same entrance. Polar stations are maintained at Mys Stolbovoy, at the W entrance, and at **Matshar** (73°16'N., 56°24'E.) radio station, on the N side of the strait, 6 miles within the E entrance.

Mys Stolbovoy (73°18'N., 53°56'E.), the SW entrance point of the W entrance, is formed by a high and bold headland. The land to the S of this point rises gradually and extends 1.5 miles SW to Gory Konusnye, which consists of two conspicuous conical hills. The southwesternmost and taller hill is 190m high.

Two pillar rocks lie on a reef, which extends 0.5 mile N from the point and has a steep-to outer edge.

A beacon stands 0.5 mile SSW of the point and appears as a large black cairn on a hillside when seen from a distance. This beacon is sometimes obscured by fog while the lower land in its vicinity may be visible. A polar station is situated 0.5 mile SSE of the beacon.

4.47 Mys Serebryanyy (73°21'N., 54°04'E.), located 4.2 miles NNE of Mys Stolbovoy, is the W extremity of a peninsula which forms the N side of the entrance to the strait. Gory Litke rises close inland, 4 miles E of the point. This mountain is 682m high and slopes down to the SSW.

Ivanovy Kamni, a rocky islet, lies 0.5 mile SW of the point and is fronted by above-water rocks and a reef. It is not easily distinguished from the W against the background of the coast.

Winds—Weather.—Although the distance between the W and E entrances of Proliv Matochkin Shar is small, weather conditions may be entirely different at either end. The wind may be blowing from the W at the W end and, at the same time, blowing from the E at the E end. On some occasions, an E gale may occur at the W end while a W or NW gale is occurring at the E end. The W part of the strait has a milder climate than the E part. At the W entrance, the weather is usually misty and hazy during W winds, but is clear during E winds. Throughout the navigation season, snow squalls may be encountered, but mainly in September and October. Fog, which occurs frequently in the strait, usually appears with E winds, but it may also occur with W winds at the W entrance. Ice is usually present when fog occurs.

Ice.—Ice conditions in the W part of Proliv Matochkin Shar are considerably different from those in the E part. During the navigation season, ice very rarely appears in the W part, but its appearance in the E part is dependent on the conditions of the ice in the Kara Sea. When ice accumulates off the E coast of Novaya Zemlya, E winds will move it into the E entrance. The ice will then be carried farther into the strait by the tidal current. With E winds of long duration, the E entrance and a considerable part of the strait are covered with ice as long as the wind lasts. When the wind becomes W, the ice soon leaves the strait. During light winds, the movement of ice in the strait is caused almost wholly by the tidal currents and large areas of open water, filled with broken ice, are formed off the E entrance.

During E winds, the ice becomes tightly packed in that part of the strait lying between the E entrance and the narrowest part, about 20 miles W. Farther W, close ice will alternate with broken ice, depending upon the direction of the tidal current. Ice seldom passes W of Mys Morzhov (73°25'N., 54°55'E.) but, after a number of changes of direction by the tidal current during a prolonged period of E winds, it sometimes appears in the W part of the strait.

Kara Sea ice, which enters the strait, frequently consists of floes and heavy broken ice. When the pressure of the ice is great, hummocked ice is occasionally formed in the narrowest part of the strait and ice accumulates along the shores.

With ice in the strait, the possibility of a vessel passing through it is determined principally by the amount and compactness of that ice. In the narrow parts of the strait, the tidal current often carries the ice at a considerable speed and a vessel proceeding against the current may receive severe blows. The steep-to shores of the strait permit a close approach by a vessel in most places, thereby facilitating navigation through the ice. When broken ice occurs in the E entrance, the area lying off the N shore in the vicinity of Matshar radio station,

where the tidal currents are weak, usually has less ice in it than the middle or the S part of the strait.

In winter, fast ice covers the entire strait except in the narrows, where, in some years, there are areas of open water. This fast ice usually extends about 2 to 10 miles offshore at the E entrance, its seaward limit depending on the prevailing wind.

The ice in the W entrance breaks up earlier and freezes later than that in the E entrance. In the winter of 1927-1928, the first appearance of ice in the W entrance was on December 6 and the formation of fast ice commenced on December 8. However, this part of the strait did not become entirely icebound until March 21. In that same winter, the first appearance of slush and drift ice off Matshar radio station was on October 29 and the strait was completely frozen over on October 31. In the spring of 1928, the ice in the W part of the strait broke up on April 25 and this area was completely clear by May 21. The ice in the E part of the strait did not break up until July 5 and this area was not completely clear until September 10.

Tides—Currents.—The tidal currents in Proliv Matochkin Shar set in the direction of the axis of the strait. They are normally quite regular and reverse their direction about every 6 hours. The tidal currents attain a mean rate of about 2 knots, but in the narrowest parts of the strait they attain rates of 3.5 to 4 knots and up to 5 knots at springs.

The winds affect the period and velocity of the tidal currents. Winds from the W may increase the duration of the E current to 9 hours, whereas winds from the E may reduce its duration to 3 or 4 hours. An interruption of the regularity of the tidal currents is a good indication of winds to be expected in the immediate future.

In the W part of the strait, the tidal current begins to set E at 2 hours 40 minutes after HW at that place. It begins to set W at 2 hours 40 minutes after LW. A vessel entering the strait when the tidal current turns in a favorable direction will carry it throughout the passage.

Depths—Limitations.—In the W part of Proliv Matochkin Shar, the fairways have depths of 12 to 26m. Between Mys Morzhov and Mys Zavorotnyy (73°21'N., 55°19'E.) the depths are much greater, being as much as 90 to 140m in some places. Depths of 14 to 22m lie in the E end of the narrowest part and very irregular depths of 42 to 180m lie in the E part of the strait.

Aspect.—Because of the uniform appearance of the mountains bordering Proliv Matochkin Shar, the location of the W entrance is not easily identified from a distance to seaward.

In clear weather, a vessel approaching the W entrance from SW will sight **Ostrov Pankov** (73°17'N., 53°43'E.) open NW of Mys Stolbovoy. This islet appears either black or whitish, depending on the light. Mys Stolbovoy can be identified by Gory Kunusnye rising SW of it.

The great mountainous mass of Mityushev Kamen is visible in clear weather from a distance of 20 to 25 miles and its summit, **Gora Monakh** (73°30'N., 54°29'E.), is 984m high. This mass dominates the vicinity and its steep S slopes are conspicuous. Farther S, the mountains appear as an almost continuous chain extending as far as Gora Pervousmotrennaya.

When first seen from NW, Mys Stolbovoy appears as a dark patch, but it can be identified by Gory Konusnye which, from this direction, is more conspicuous than the point.

Pilotage.—During the navigational season, pilots will conduct vessels through the W and E entrances of the strait. A vessel requiring a pilot should communicate with the pilot vessel by radio.

Pilots normally board vessels approaching from the W off Mys Stolbovoy. In bad weather, pilots may board between Ostrov Chernyy Kamen (73°17'N., 54°16'E.) and Kamni Yegorova, 5.5 miles E. During gales or with a heavy sea running, pilots may board off the settlement on Mys Lagernyy (73°20'N., 54°22'E.).

Similarly, pilots normally board vessels approaching from the E off the **Polar Station** (73°16'N., 56°24'E.). In bad weather, especially with S winds, pilots may board off **Zaliv Gubina** (73°15'N., 56°00'E.), 6 miles W.

At the beginning of the navigational season, when Proliv Matochkin Shar is still closed or passage through it is rendered difficult by ice conditions, the pilotage service is transferred to **Proliv Yugorskiy Shar** (69°40'N., 60°05'E.).

Anchorage.—Anchorage may be obtained anywhere between Mys Baraniy and Mys Morzhov. This area has depths of 12 to 24m over a bottom of mud, sand, fine sand, and small stones. One of the best anchorages in this reach lies in depths of 11 to 15m, mud and sand, near the NW shore, E of Mys Lagernyy. There is no swell at this anchorage and squalls from the mountains are very rare. Good anchorage, in a depth of 13m, fine sand, can also be taken close E of the bank on which Kamni Yegorova lies. Vessels using this anchorage may be inconvenienced at times by strong tidal currents and, in some years, by ice from the Kara Sea.

Caution.—The whole of Proliv Matochkin Shar between Mys Serebryanyy and Mys Stolbovoy, at the W end, and between Mys Vykhodnoy and Mys Rok, at the E end, is designated as an area temporarily prohibited to navigation. The strait appears to be closed on a semi-permanent basis and vessels should obtain clearance before attempting passage through it.

4.48 The W entrance lies between Mys Stolbovoy and Mys Serebryanyy, 4.2 miles NNE. Between Mys Serebrayanyy and **Mys Baraniy** (73°19'N., 54°14'E.), 3.8 miles SE, the coast is very precipitous and is fronted by several drying rocks. A bight lies between a headland, located 1 mile SSE of Mys Serebryanyy, and Mys Baraniy.

A dangerous foul ground area lies 1.5 miles W of Mys Baraniy. This area has a least depth of 1.5m and breakers usually appear in it.

From Mys Baraniy to **Mys Morzhov** (73°25'N., 54°55'E.), on the S side, the strait trends in a general NE direction for 14 miles. A light is shown from a tower with a hut, 8m high, standing on the latter point.

Gory Litke, standing near Mys Baraniy, and **Gory Lazareva** (73°23'N., 54°52'E.), standing on the SE side near Mys Morzhov, both slope down steeply to the shores of the strait.

Elsewhere along this reach, the mountains rise comparatively gently from the shore on either side.

Several small rivers and brooks, most of which form deltas at their mouths, flow into the strait on both sides. The low shores of the river deltas are mostly steep-to.

About 8 miles ENE of Mys Baraniy, the strait narrows to a width of only 0.4 mile.

The settlement of Lagernyy is situated near **Mys Lagernyy** (73°20'N., 54°22'E.), which rises on the NW side of the strait, 2.5 miles ENE of Mys Baraniy. The fairway in this reach has depths of 12 to 22m except within 1.5 miles of the W side of Mys Morzhov, where they are somewhat greater.

4.49 Ostrov Chernyy Kamen (73°17'N., 54°16'E.), a rocky islet, lies 1.8 miles SSE of Mys Baraniy. This islet is closely fringed by a reef and shoal patches, with depths of 2 to 8m, lie within 0.6 mile S and SW of it. The front light of a range is shown from a structure standing on the islet.

Mys Baraniy and the coast extending for 1.8 miles E of it are fronted by rocks which lie up to about 0.3 seaward. A shoal patch, with a depth of 8.2m, lies about 0.8 mile S of the point.

A bank, with depths of less than 5m, extends about 1 mile S from a point on the coast, 0.5 mile E of Mys Baraniy. Two large conspicuous rocks lie on this bank; the S extremity of the bank is marked by a lighted buoy.The fairway leading between this bank and Ostrov Chernyy Kamen is 0.7 mile wide.

A shoal, with a least depth of 1.8m, lies with its S end located 1.5 miles WSW of a point on the SE side of the strait, 2.8 miles WSW of Mys Morzhov. The SE side of this shoal, midway between its ends, is marked by a buoy. The main fairway channel passes to the SE of this shoal, the channel lying on the NW side being suitable for light-draft vessels only. A shoal patch, with a depth of 5.5m, lies about close NW of Mys Morzhov.

4.50 From Mys Morzhov(73°25'N., 54°55'E.) the strait, with a width of 1 mile, trends ESE for 6.5 miles to Mys Zhuravleva, on the SE side, and then S for 1.8 miles to **Mys Zavorotnyy** (73°21'N., 55°19'E.), on the NE side; lights are shown from structures standing on both these points. Mountains, among which are glaciers, rise precipitously on both sides of this reach and attain heights of 700 to 910m. The delta of Reka Shalonik lies on the NE side of the reach, opposite Mys Zhuravleva. This reach is much deeper than that part of the strait lying farther W. Both sides are steep-to and the fairway is clear of dangers. The bottom mostly consists of small stones with mud in the deeper parts.

From Mys Zavorotnyy, the strait trends ESE for 3 miles to **Mys Gatiyeva** (73°19'N., 55°27'E.), on the N side, and then E for 6 miles to Mys Snezhnyy, on the S side; lights are shown from structures standing on both these points. Between Mys Zavorotnyy and Mys Uzkiy, a point located on the N side 2.2 miles E of Mys Gatiyeva, the strait is narrowed in places to a width of less than 0.4 mile by alluvial deposits, which lie at the mouths of several streams. This is the narrowest part of the whole strait. Both shores rise steeply to the E of these narrows. This part of the strait has general depths of 20 to 60m, but depths of 14 to 22m lie off Mys Uzkiy.

Comparatively good anchorage can be taken, in depths of 14 to 26m, off the N side of the strait, W of the narrows, but the tidal currents are strong at times. The holding ground, although rocky, is good as the bottom is covered with a layer of mud.

From Mys Snezhnyy, the strait tends in a general SE direction for 6.5 miles to Mys Poperechnyy, on the N side, and then E for 2.2 miles to Mys Drovyanoy, on the S side. The E entrance of the strait, located E of Mys Drovyanoy, is 5.5 miles wide and lies between Mys Rok and Mys Vykhodnoy.

Between Mys Snezhnyy and Mys Drovyanoy, the SW side of the strait is indented by two coves. The smaller of these coves lies 2 miles SSE of Mys Snezhnyy. **Zaliv Gubina** (73°16'N., 56°00'E.), the larger cove, is entered between Mys Gubina, located 4 miles SE of Mys Snezhnyy, and a point, 1.5 miles SE. Vessels of moderate size can obtain anchorage in this cove with the range beacons, situated at the head, bearing 220°. Between the SE entrance point of this cove and Mys Drovyanoy, the shore is steep-to, but is fronted by several shallow rocks.

4.51 Mys Drovyanoy (73°14'N., 56°14'E.) is low and sandy. The W side of this point is steep-to and a bank, with depths of less than 11m, extends up to about 0.3 mile seaward from its E side. An accumulation of driftwood usually lies on this point.

Mys Sernyy is located 3 miles ESE of Mys Snezhnyy, on the NE side of the strait. This headland rises to Gora Sernaya, a steep and massive mountain, 660 to 817m high.

Guba Beluzh'ya, a fjord, is entered between Mys Sernyy and a point, 1.5 miles E. It extends N for 5.5 miles to a passage, only 0.2 mile wide, then widens and extends N for about 3 miles to a basin at the head. Several mountains, 610 to 700m high, rise on both sides of this fjord. Three small islets are located on a drying shingle bank which lies in the middle of the fjord, 3 miles within its entrance. A large shoal, with a least depth of 2.4m, lies in the middle of the fjord and is centered about 0.9 mile N of the northernmost islets.

Zaliv Tyuleniy (73°18'N., 56°04'E.) is entered on the E side of the fjord, 0.8 mile inside the entrance. A high waterfall is located in the NE part of this cove.

Poluostrov Chirakina, which separates the cove from the fjord, is high, steep-sided, and joined to the mainland by a low neck. A rock, with a depth of 3.9m, lies near the outer end of a spit which extends 0.3 mile S from the S extremity of this peninsula. The channel leading through the entrance of the cove is about 180m wide and has depths of 14 to 18m. Anchorage can be obtained by small vessels, in depths of 9 to 14m, mud, close inside this cove. Anchorage can also be taken, in depths of 12 to 22m, close S of the entrance, but clear of the spit.

Mys Poperechnyy, located 3.5 miles SSE of Mys Sernyy, is sandy, 5m high, and projects from the foot of a high cliff. Between this point and Mys Vykhodnoy, the NE entrance point of the strait, the N side consists mostly of cliffs, 50m

high. A stream, known as Reka Nochuyev, enters the strait, 4.8 miles E of Mys Poperechnyy.

Matshar Radio Station (73°16'N., 56°24'E.) and the buildings of a polar station are situated on a hill which rises on the W side of the stream. A prominent radio mast, 55m high, stands at the station. The buildings and the mast are visible from seaward only between the bearings of 304° and 326°.

4.52 Mys Vykhodnoy (73°14'N., 56°44'E.), marked by a light, is a bluff headland, 21m high. A pillar rock stands close E of this point and several shallow rocks lie within 0.2 mile S of it. A shoal patch, with a depth of 4.6m, lies about 0.8 mile E of the point, has not been fully examined.

A tableland slopes gradually E from this headland to the Kara Sea.

Anchorage may be obtained, in depths of 5.5 to 15m, slate and sand with small stones, from 300m to about 0.3 mile offshore, abreast the radio station. Because the depths increase rapidly to the S, this roadstead has limited space and is insecure in offshore winds, which are often very strong during squalls.

From a distance to the SE or E, the E entrance of Proliv Matochkin Shar appears as an inlet with a background of high mountains.

In comparison with the mountains, the coast does not appear very high, that on the N side of the entrance being the taller. From a considerable distance, Mys Vykhodnoy is reported to be difficult to identify against the higher land.

From the NE, the entrance to the strait cannot be seen. However, its location, in clear weather, can be determined by a group of mountains which stand W of Mys Poperechnyy and Zaliv Gubina. These mountains appear to be higher than any of the others in the vicinity and the two southernmost have dome-shaped summits. A lower mountain, with a pointed peak, rises close N of these two.

Mys Vykhodnoy usually appears as a low, black strip against the uniform S shore of the strait.

Caution.—From a distance offshore, vessels should take care not to mistake some inlet lying along the coast to the NNE of Mys Vykhodnoy for the entrance to the strait.

The depths lying in the E approach to the strait and the entrance are irregular and soundings generally give no reliable warning of the proximity to the shore.

West Coast of Novaya Zemlya—North Part

4.53 Mys Zapasova (73°33'N., 54°24'E.) is located 13.5 miles NNE of Mys Serebryanyy (73°21'N., 54°04'E.); the coast between is mainly precipitous. It first trends NE for 2.8 miles to Mys Zavorotnyy, which is fringed by drying and above-water rocks. Between this point and Mys Mityushev, 5.2 miles NNE, the coast then recedes E to form a bay, the shore of which is indented by two coves. Rocks and reefs fringe the coast of this bay and the coves. A reef extends for about 0.3 mile seaward from Mys Mityushev.

From Mys Mityushev, the coast trends NNE for 5.5 miles to Mys Zapasova, a headland, which is 512m high and precipitous near its summit. Mityushev Kamen, a mountainous mass, attains a height of 984m and rises E of this stretch of coast.

Banka Murmanet (73°24'N., 53°50'E.), a shoal area, has a least depth of 3.4m and is reported to lie about 3 miles WSW of **Mys Rifovyy** (73°25'N., 54°01'E.), the SW extremity of Ostrov Mityushev. The existence of this danger is doubtful.

Banka Taymyr, consisting of several shallow rocks, lies about 2.8 miles NW of Mys Rifovyy and breakers appear on it when there is a swell. A spit, with a depth of 2.1m, extends about 1 mile ESE from this bank.

Caution.—Icebergs, at times, have been observed aground in a position about 16 miles SW of Mys Sukhoy Nos (73°47'N., 53°44'E.).

4.54 Ostrov Mityushev (73°25'N., 54°01'E.) lies 3 miles WNW of Mys Zavorotnyy. This island is generally low, but a ridge stands in a N and S direction across it. The coasts of the island consist mainly of cliffs and, for the most part, are fringed by reefs. A conspicuous pillar rock stands near Mys Rifovyy and a ledge, with a depth of 8.8m at its outer extremity, extends about 1 mile W from the same point.

Proliv Krotova, at the SE side, and Proliv Kazakova, at the NE side, separate Ostrov Mityushev from the mainland. The fairway channels in these straits are deep and clear of known dangers.

Guba Mityushikha (73°34'N., 54°22'E.), a fjord, is entered between Mys Zapasova and Mys Ostrovnoy, a rather low point located 6 miles WNW. From the entrance, this fjord extends 20 miles in an ENE direction. About 11 miles within the entrance, the fjord is narrowed to a width of 1.2 miles by a narrow peninsula which projects NE. The inner part of the fjord consists of two basins connected by a narrow and shallow passage, which lies between two river deltas. The S side of the fjord is high and, in some places, steep.

Mys Primetnyy (73°38'N., 54°44'E.), located 7.5 miles NE of Mys Zapasova, is a dark-colored bluff which is conspicuous from the entrance of the fjord. A bight, lying S of **Poluostrov Klochkovskiy** (73°39'N., 54°51'E.), is shallow and should only be approached with local knowledge. Between this bight and the head of the fjord, mountains rise steeply from the shore to heights of up to 840m.

The N side of Guba Mityushikha slopes steeply down from a plateau, 305m high, to the coast, which is 46 to 90m high. Mys Poluostrovnoy, located 2.5 miles ESE of Mys Ostrovnoy, is the S extremity of a small and rather high peninsula which is joined to the mainland by a low, sandy isthmus. This peninsula appears as an island when seen from a distance to the NW.

Kamen' Murman lies in the approach to Guba Mityushikha, 3.8 miles S of Mys Ostrovnoy. This steep-to rock has a least depth of 2.7m and breaks in a heavy swell. A shoal, with a least depth of 8.8m, lies about 2.2 miles NW of the rock.

A spit, with depths of less than 4m, extends about 0.8 mile SSW from Mys Ostrovnoy. A small rock, with a least depth of 1.8m, lies about 1.5 miles SSW of Mys Poluostrovnoy and is steep-to. A bank, with depths of less than 11m, extends about 1 mile SE from a point located 1.2 miles ENE

of Mys Poluostrovnoy. A reef, which is steep-to along its N side, lies in the middle of the fjord, about 3.5 miles NNE of Mys Zapasova. It breaks with even a slight swell and dries in places. A shoal patch, with a depth of 7.6m, lies about 0.5 mile SSW of this reef.

Ostrov Gagachiy (73°39'N., 54°36'E.), lying 2 miles WNW of Mys Primetnyy, is the largest of a group of islets which encumber the outer part of the fjord. This islet is steep, rocky, and surmounted by a beacon.

Anchorage can be obtained, in depths of 24 to 25m, mud, about 1.5 miles NE of Mys Primetnyy. The holding ground is not as good in the shallower depths lying closer to the S shore of the fjord. The depths throughout the greater part of the fjord, with a mud bottom, are suitable for anchorage, but its outer part is exposed to W and SW winds. The bora blows from the SE in the fjord and at times reaches force 11 during squalls.

4.55 Between **Mys Ostrovnoy** (73°36'N., 54°06'E.) and Mys Sukhoy Nos, the coast is only slightly indented. A shallow reef, which breaks, extends up to 2 miles offshore from a point located 7.5 miles NW of Mys Ostrovnoy. Rocks, above-water and awash, fringe most of the coast extending between this reef and Mys Sukhoy Nos.

Mys Sukhoy Nos (73°47'N., 53°44'E.) is the N extremity of a low and tundra-covered peninsula. This peninsula consists of an undulating plain, which gradually decreases in height to the W, and two small hills, conspicuous from seaward, rise on its W part. The coast of the peninsula is mainly steep, being very rugged near Mys Sukhoy Nos.

Reefs fringe the point and the shores of a bight which is entered close E of it. The W and N sides of the peninsula are fronted by banks. The exact extent of these banks has not been accurately determined and vessels should not approach the W side or the N extremity of the peninsula within 6 miles.

Shoal banks, the positions of which are doubtful, lie within 27 miles WNW of Mys Sukhoy Nos and have depths of 19 to 24m. A bank, with a depth of 23.7m, lies about 26 miles N of Mys Sukhoy Nos.

4.56 Zaliv Melkiy (73°58'N., 54°41'E.) is entered between Mys Lavrova, located 13 miles NE of Mys Sukhoy Nos, and **Mys Litke** (73°59'N., 54°34'E.), 5 miles NE. Mys Lavrova, a conspicuous bluff, is 31m high and rises to a sharply-pointed hill. A small, but conspicuous, peninsula extends from the S side of the inlet, 5 miles ENE of this bluff. A reef, with an above-water rock at its outer end, extends about 0.4 mile S from Mys Litke.

The shores of the inlet are mostly bluff and fringed in many places by above-water and shallow rocks. The outer part has depths of 27 to 36m in the fairway channel and the inner part, lying E of the peninsula, affords anchorage, in depths of 9 to 13m, mud. This roadstead is sheltered from E winds, but a heavy swell enters during W winds. Vessels entering the inlet should keep to the center of the fairway. The tidal currents at the entrance set NE at a rate of 0.5 knot and SW at a rate of 1.2 knots.

4.57 Between Mys Litke and Mys Smirnova, 13 miles NE, the coast is rocky, precipitous, and fringed by reefs which lie up to about 1.5 miles offshore. A rock, almost awash, lies 1.2 miles offshore, about 2 miles N of Mys Litke. The sea breaks over this rock even in calm weather.

Mys Smirnova, 30m high, is the N extremity of a small peninsula. A reef extends up to about 0.4 mile seaward from this point.

Guba Krestova (74°11'N., 55°12'E.) indents the coast between Mys Smirnova and Mys Prokof'yeva, 5 miles NNE. The navigable part of this bay extends about 13 miles ESE from the entrance. To the S of this part, the bay consists of a chain of connected shallow lagoons into which three rivers flow.

Several mountains rise on both sides of the bay, but they are higher and more numerous along the shores of the inner part. Gora Srednyaya, 1,220m high, rises near the NE side of the head. This mountain is the highest in the vicinity of the bay and is visible, in clear weather, from a distance of about 50 miles seaward. A conical peak, 873m high, stands 9 miles WSW of this mountain and is conspicuous. The shores of the bay are mostly steep and indented by several coves and bights. A prominent cliff, 410m high, rises 2 miles SE of Mys Smirnova.

A shallow and foul cove indents the shore between Mys Smirnova and **Mys Moiseyeva** (74°09'N., 55°08'E.), 2.2 miles E. A reef extends up to about 0.3 mile seaward from the latter point.

Reyd Bakan is the SE part of a bight which lies between Mys Moiseyeva and Mys Kamennyy, 5.2 miles ESE. This roadstead affords anchorage, in depths of 11 to 13m, fine sand and shingle, about 0.5 mile NW of a pyramid, surmounted by a cross, which stands on its SE shore. Anchorage can also be taken closer inshore, in depths of 6 to 7m, ooze. Although the holding ground in the roadstead is good, winds from the NW or N render the anchorage uncomfortable.

Ostrov Vrangelya (74°10'N., 55°20'E.), lying 2.2 miles E of Mys Moiseyeva, is the largest of five islets located within Guba Krestovaya. Rocks fringe the shores of this islet and extend up to about 0.2 mile seaward from its E extremity. A beacon stands near the center of this islet.

A drying patch, the position of which is doubtful, is reported to lie about 0.7 mile NNE of the center of Ostrov Vrangelya.

4.58 Between **Mys Prokof'yeva** (74°14'N., 55°08'E.) and the S entrance to **Guba Yuzhnaya Sul'meneva** (74°19'N., 55°18'E.), 3 miles N, the coast forms two small bights. Reefs extend up to about 1 mile seaward from this stretch of coast and, in clear weather, vessels should keep at least 2 miles offshore. During thick weather, vessels are advised to stay in depths of over 55m.

Guba Yuzhnaya Sul'meneva, which extends 9 miles ESE, is entered between Mys Ivana Malyesheva and Mys Pavla Zaytseva, 4 miles N. This bay is separated from Guba Krestovaya by a narrow peninsula on which stand several hills, up to 61m high. An extensive glacier, which is visible from a considerable distance to the SW, descends to the N side

of the bay. Another glacier descends to the head of the bay. The outer part of the bay has depths of 54 to 90m. A bight, which indents the S side of the bay close within the entrance, affords anchorage, in depths of 16 to 22m, ooze. However, this roadstead is exposed to winds and sea from the NW. The bay is practically unsurveyed and great care is required when entering.

Between the N entrance point of Guba Yuzhnaya Sul'meneva and Mys Stepovogo, 4 miles N, the coast consists of cliffs, up to 20m high, and is uniform in appearance. The known dangers lying off this stretch of the coast are located within 0.5 mile of the shore. This stretch of the coast forms the W side of the a peninsula which separates Guba Yuzhnaya Sul'meneva from Guba Severnaya Sul'meneva, the next bay to the N.

Guba Severnaya Sul'meneva (74°29'N., 55°33'E.), extending 10 miles E, is entered between Mys Stepovogo and Mys Chernitskogo, 7 miles ENE. Foul ground, which breaks, fronts both of these entrance points and extends up to 1 mile seaward in places to the N of Mys Stepovogo. The S side of the bay and the outer part of the N side are steep and little indented.

About 6 miles E of Mys Chernitskogo, the N side trends S and is indented by two coves. Beyond these coves, the N shore trends E and is indented by a cove, lying 1.5 miles from the head of the bay, which recedes N for 0.8 mile. Foul ground, which breaks, extends from the W side of the entrance to this cove and a reef extends S from the E entrance point.

Two glaciers descend to the head of the bay and another glacier approaches the N shore, but does not reach the water. Ostrov Chernitskogo is a small, but conspicuous, islet lying close off Mys Chernitskogo. This islet has yellowish cliffs and foul ground extends for a considerable distance from it. Shallow and above-water rocks lie on the E side of the outer part of the bay.

4.59 Mys Shantsa (74°40'N., 55°50'E.) is located 9.5 miles N of Mys Chernitskogo and the coast between consists of steep cliffs. Foul ground, on which the sea breaks, extends a considerable distance seaward from the foot of these cliffs. Level tundra backs this stretch of the shore.

Mys Ptichiy, a bold point, is located about midway between Mys Chernitskogo and Mys Shantsa. This point, which has a large sea bird rookery on it, rises to a height of 300m, about 2 miles inland.

Guba Mashigina (74°44'N., 55°48'E.) indents the coast between Mys Shantsa and Mys Borisova, 6 miles N. This bay extends for 18 miles in a general E direction and consists of a wide outer part, a central part, and an inner part. The central part is connected to the inner part by a channel, 0.2 mile wide. The fairway channels of the outer and central parts have depths of over 90m, but these depths decrease to 36m at the inner end of the central part. The fairway connecting the central and inner parts has depths of 3.7 to 13m. The shores of the outer and central parts of the bay should be approached with caution as they are fringed by numerous islets and rocks may be present in their vicinity. Two bights, which are encumbered by several islets, indent the S side of the bay.

On the N side of the outer part of the bay, several groups of rocky islets lie up to 0.8 mile seaward of a number of points, which separate slight indentations along the shore. The central part of the bay has glaciers on either side and another glacier descends to a broad sandy beach at the NE corner of the inner part of the bay.

4.60 From **Mys Borisova** (74°47'N., 55°51'E.), the coast trends 9 miles NE to the entrance of Guba Katernaya. It is rocky, bluff, and fronted by reefs in places. Ostrov Borisova, a low islet, lies 0.8 mile NW of Mys Borisova. Reefs fringe this islet and extend about 0.4 mile seaward from the mainland abreast it.

Poluostrov Admiralteystva (75°04'N., 55°48'E.) projects 12 miles from the general trend of the coast. Mys Spidill, the SW extremity of this peninsula, is located 10 miles N of Mys Borisova. The peninsula is low, with a slightly hilly surface, and is joined by a broad, low isthmus to the mainland. Mountains, up to 457m high, form a coastal range and a glacier descends from them to this isthmus. The shores of the peninsula are fronted by numerous reefs and vessels should keep well clear. Although low, Poluostrov Admiralteystva is the most conspicuous feature along the W side of Novaya Zemlya.

Zaliv Murman (74°53'N., 55°52'E.), with three bays lying at its head, is entered between Mys Borisova and Mys Spidill, 11 miles N.

Guba Katernaya, the southernmost of the bays, extends 5 miles NE and is about 1 mile wide at its entrance. The SE entrance point of this bay is surmounted by several low cairns, is bluff, and is fronted by a number of above-water rocks. Below and above-water rocks front the SE side of the NW entrance point. The settlement of Smidovicha is situated on the N shore of this bay. Anchorage may be taken, in depths of 16 to 18m, ooze, in the middle of the fairway channel and close inside the bay entrance. Small vessels can anchor, in a depth of 8m, soft mud, near the head of the bay. Winds from the SW or W usually render these roadsteads untenable.

Bukhta Sredniy, the bay lying close N of Guba Katernaya, has not been surveyed and its entrance is obstructed by rocks.

Guba Sosnovskogo, the northernmost bay within Zaliv Murman, lies 5.5 miles N of Guba Katernaya. This bay extends 4 miles N and, although several rocks lie in the entrance, is wide enough for large vessels to enter. It provides a spacious anchorage roadstead which is sheltered from all but S and SW winds.

The W side of Poluostrov Admiralteystva extends from Mys Spidill to Mys Nikolaya, 14 miles NNE, and is little indented. A shoal, with a depth of 12m, lies about 9.5 miles W of Mys Spidill.

Caution.—A local magnetic anomaly has been reported to exist in the Barents Sea about 210 miles NW of Poluostrov Admiralteystva.

4.61 Mys Nikolaya (75°11'N., 56°00'E.) is the N extremity of Poluostrov Admiralteystva. Two small bays, with rocks fronting their entrance points, lie close E of this point.

The coast between Mys Nikolaya and Mys Karlsena, the N extremity of Novaya Zemlya, extends 204 miles ENE and is irregular and indented. Several islands lie off the central part of this stretch of coast. The interior of this part of Novaya Zemlya is almost entirely covered with ice, above which, mountain peaks rise. Numerous glaciers descend to the sea and, in some places, these are better landmarks than the points of land which are mostly inconspicuous against the uniform appearance of the coast.

Between Poluostrov Pankrat'yeva and Mys Karlsena, the coast has been only very superficially surveyed. A settlement and a polar station are situated on the shores of Zaliv Russkaya Gavan', 87 miles SW of Mys Karlsena.

Caution.—A shoal patch, with a depth of 8.2m, lies about 2 miles N of the outermost island of **Ostrova Krestovyye** (76°03'N., 59°04'E.).

A dome-shaped rock, 2m high, has been reported (1934) to lie about 8 miles NNW of the SW extremity of Ostrov **Pankrat'yeva** (76°06'N., 60°00'E.). Another rock, with a depth of less than 1.8m, lies about 2.5 miles NNW of the same extremity. The positions of these rocks are doubtful.

Ostrova Galfstrim (76°25'N., 64°09'E.), consisting of two low and inconspicuous islets 1 mile apart, lies 5 miles WNW of **Mys Obrucheva** (76°22'N., 64°32'E.).

A group of three islands lies about 8 miles offshore, 19 miles W of Mys Obrucheva.

Several islands, islets, and dangers lie nearer to the coast and are described with the related features.

Caution.—Throughout the navigational season, vessels navigating off the coast between **Ostrova Gorbovy** (75°56'N., 59°09'E.) and Mys Karlsena may encounter icebergs from the various glaciers.

The depths off this stretch of coast are generally irregular.

4.62 Guba Glazova (75°13'N., 56°30'E.), an extensive bay open to the N, lies between the E side of Poluostrov Admiralteystva, a peninsula, and the coast. The shore of the peninsula is rocky, bluff, and decreases in height towards the head of the bay. The bay shoals rapidly toward its head, which is fringed by a sandy beach. Two glaciers, with hills between them, descend to the SE side of the bay.

Mys Lava, a headland, is located 12 miles ENE of Mys Nikolaya and is fringed by numerous below and above-water rocks.

Mys Maslennikova (75°22'N., 57°04'E.), a low point, is located 8.5 miles NE of Mys Lava and is fronted by a reef, which is formed by sharp-pointed above-water rocks. The intervening coast, which is low and bluff, is strewn with quantities of driftwood, but has no noticeable indentations. Several rocks, some of which are awash, front the coast, about 3.5 miles SW of this point.

Zaliv Nordenshel'da (75°25'N., 57°16'E.), a large bay, indents the coast between Mys Maslennikova and a point, 10 miles NE. Mountains rise close inland on all sides of this bay. A glacier, with a face 4 or 5 miles wide, descends to the S part of the E shore of the bay. Two coves lie close N of this glacier. The northernmost and larger cove affords anchorage, in depths of 12 to 18m, mud. Several cairns, with poles, stand on the N and S sides of this cove. The bay is very deep in the middle and shoals gradually to the coves at the head.

4.63 Mys Chernyy (75°30'N., 57°40'E.), a prominent headland, is located 4 miles N of the NE entrance point of Zaliv Nordenshel'da. It can be easily identified by a mountain, 635m high, standing 2 miles ESE of it. The coast between Zaliv Nordenshel'da and this headland is fronted by below and above-water rocks.

It was reported (1910) that a small cross surmounts a steep hill which rises close S of this headland.

From Mys Chernyy, the coast trends NE for 6 miles to Mys Pospelova.

Zaliv Vil'kitskogo (75°36'N., 57°59'E.) is entered between Mys Pospelova and Mys Solungskogo, 3 miles N, and extends about 5 miles in an E direction. The shores of this bay consist of steep cliffs fronted by below and above-water rocks. A glacier, about 2.5 miles wide, descends to its E side.

From Mys Solungskogo to the entrance of Guba Arkhangel'skaya, 23 miles NE, several bays indent the coast.

Between Mys Solungskogo and Mys Lednikovy, 13 miles NE, the coast recedes to the E and forms a bay. About midway along this stretch of coast, a bank, with a least depth of 4.2m, extends nearly 4 miles seaward. Several bights indent the shores of the bay and numerous islets front its S side.

Mys Lednikovy (75°46'N., 58°36'E.), a low and narrow point, is located at the end of a chain of low, rounded hills. Ostrov Vil'gel'ma, lying 2.5 miles N of the point, consists of a group of low, flat rocks divided by a fissure. The coast extending to the N of the point is indented by a small bight with a glacier at its head. The coast extending for 6 miles on the N side of this bight consists of continuous cliffs, which are covered with sea bird rookeries. A conspicuous waterfall, which flows over the cliffs on the mainland coast between Ostrov Vil'gel'ma and the entrance to Guba Arkhangel'skaya, is visible, in clear weather, from a distance of about 10 miles.

4.64 Ostrova Gorbovy (75°56'N., 59°10'E.), consisting of a group of islands and islets, lies in and off the entrance to Guba Arkhangel'skaya. From a distance, these islands and islets appear to merge with the mainland. Ostrov Berkha, the largest and outermost island of the group, lies with its SW extremity located 10.5 miles NNE of Mys Lednikovy. This island is 183m high and a conspicuous cross stands on its NE extremity. Two small islets and several shallow rocks lie close off its SW end and a number of dangerous reefs lie within 2.5 miles of its NE end.

Caution.—Only vessels with local knowledge should attempt to approach Guba Arkhangel'skaya from this area or use the passages leading between the islands and islets of Ostrova Gorbovy.

4.65 Guba Arkhangel'skaya (75°51'N., 59°08'E.) is backed by hills, up to 220m high, on its SE side and a large glacier, 2.5 miles wide, descends to the water on its E side.

Several other smaller glaciers also descend to the shores of this bay. Depths of 73 to 82m lie in the middle of the S part of the bay, but vessels can obtain anchorage, in depths of 9 to 13m, closer inshore. The roadstead is open to W winds and boras (vstok) frequently blow strongly in this area.

Ostrova Krestovyye (76°04'N., 59°12'E.) consists of three islands which lie N and NE of Ostrova Gorbovy. Ostrov Severnyy Krestovyye, the outermost island, lies 5 miles N of the NE extremity of Ostrov Berkha. This conspicuous island is low, flat, and rocky. Below and above-water rocks front the shores of the island and a detached shoal, with a depth of 8.2m, lies about 4 miles NE of the NE extremity. The channel lying between this island and Ostrov Berkha is apparently foul and should not be attempted.

4.66 Poluostrov Pankrat'yeva (Pankrat'eva) (76°04'N., 60°28'E.) lies with its W extremity located 12 miles ENE of the NE extremity of Ostrov Berkha. This peninsula is joined to the mainland by a low narrow isthmus. Three large glaciers descend to the coast between Guba Arkhangel'skaya and the isthmus.

Zaliv Sedova lies between the SSW side of the peninsula and the mainland. Two crosses stand on the N shore of this bay. A shoal, with a least depth of 0.9m, lies in the approach to the bay, about 3 miles W of the N entrance point.

Ostrov Pankrat'yeva (Pankrat'eva) (76°06'N., 60°00'E.) is separated from the NW side of Poluostrov Pankrat'yeva by a narrow strait. The W end of this island is fronted by several above-water rocks. A shoal, with a least depth of 0.9m, lies in the strait, about 0.4 mile from the island. Another rock, with a depth of less than 1.8m, lies about 4.5 miles NW of the center of the island, but its position is doubtful. A pinnacle rock, 2m high, lies about 8 miles NNW of the SW extremity of the island and its position doubtful.

The island is the former location of a consol navigation beacon.

Zaliv Borzova (76°05'N., 60°53'E.) is an extensive bay lying on the SE side of Poluostrov Pankrat'yeva. It is entered between Mys Proshchaniya, the E extremity of the peninsula, and Mys Pavlova, 2.5 miles NE. Glaciers descend to the water on the E and SE sides of this bay.

Mys Litke (76°16'N., 61°03'E.), a low and rounded point, is located 8 miles N of Mys Pavlova and is inconspicuous. The intervening coast is indented by several small bights. A rocky ledge projects SW from Mys Zakharova, which is located about midway along this stretch of the coast.

4.67 Ostrova Barentsa (76°18'N., 61°11'E.) consists of two narrow islands and lies close ENE of Mys Litke. The islands are separated from the coast by a channel, 2 miles wide. The W and smaller island has several conspicuous hummocks, which rise from a flat plain. A small cairn surmounts the central hummock. Reefs fringe this island and a rock, awash, lies about 2 miles WSW of its W end. Breakers have been reported to occur about 1.5 miles seaward of the middle part of this island.

The channel lying between the two islands and the strait leading between the E island and the mainland are shallow. The strait leading between the W island and the mainland affords good anchorage, in depths of 18 to 26m, mud, but can only be entered from the W.

Vessels entering this strait should keep closer to the islands than to the mainland as several rocks lie off the S side of the entrance. When approaching the anchorage from the N, vessels should give the islands a wide berth in order to avoid the reefs. Local knowledge is advised.

From Mys Litke to Mys Makarova, the W entrance point of Zaliv Russkaya Gavan, the coast trends in a general E direction for 19 miles. Mys Nassau, 9 miles ENE of Mys Litke, slopes gradually to the sea, appearing from E as a low spit. A 12.8m shoal patch, the position of which is doubtful, lies about 9.8 miles NNW of Mys Nassau. For several miles to the W of this point, the coast consists of cliffs 20m high. Inland, the ground rises gradually at first, then forms terraces on the slopes of the coastal hills.

4.68 Zaliv Russkaya Gavan' (76°15'N., 62°30'E.), which extends 6 miles S, is entered between Mys Makarova and Mys Utesheniya, 5 miles E. The W side of this inlet, up to 1.8 miles S of the W entrance point, is fringed by rocks which extend up to about 0.3 mile offshore. A narrow shoal, with a least depth of 5.8m, extends about 0.5 mile WSW and lies with its E end located about 0.3 mile N of Mys Utesheniya. The entrance is deep and unobstructed by known dangers, except for those described above. A peninsula projects 1.5 miles NNW from the SE side of the inlet and divides the inner part into two bays. The W bay is unsuitable for anchorage as it is not sheltered and its S part is usually full of ice. The E bay affords anchorage, sheltered from all winds, and has depths of 24 to 100m at more than 0.2 mile from the shore. A settlement stands at the head of this bay.

From the N, both Mys Makarova and Mys Utesheniya appear to rise to the hills behind them. From the E, Mys Makarova, which is fronted by a detached rock, appears bold, but not high.

When approaching the inlet, the most conspicuous landmarks are a hill, 253m high, which rises between two glaciers, 5.5 miles S of Mys Utesheniya; **Ostrov Bogatyy** (76°15'N., 62°35'E.), high with a flat surface, which lies within the inlet; and two glaciers which descend to the S part of the inlet.

The coast extending to the E of Zaliv Russkaya Gavan' has a very uniform appearance. It is reported that the various glaciers, which descend to the sea along this stretch, are better landmarks than the points of land, which are generally inconspicuous.

4.69 Zaliv Chayeva (76°14'N., 62°50'E.), lies E of Zaliv Russkaya Gavan' and is separated from it by a shoulder of land, of which Mys Utesheniya is the N extremity. Ostrov Babushkina lies 3 miles SE of Mys Utesheniya and off the entrance to Bukhta Chukhnovskogo, which forms the SE part of Zaliv Chayeva. The bay is exposed to N winds. The SW shore of the gulf is rocky and precipitous while the SE shore is almost completely covered by Lednik Chayeva. A large cairn stands on this islet. Numerous dangers lie in the ap-

proach to Zaliv Chayeva and vessels should not attempt to enter this inlet without local knowledge.

Mys Zayats (76°18'N., 63°33'E.) marks the NE end of a small inlet bounded by a small section of an ice-free coastal area formed by a moraine. A stony muddy spit projects from the promontory, forming a small bay that is accessible to boats. A shoal, with depths of less than 10m, extends for 0.8 miles WNW from Mys Zayats.

Caution.—The bay is permanently filled with drift ice; a bank, with least depth of 4.1m, is located 3 miles W of Mys Zayats. Another bank, with depths of 6.2m, lies 3.3 miles WNW of Mys Zayats.

The Russkaya Arktika National Park has been established on the land and water areas extending outwards to 12 miles from the shoreline of the N part of Ostrov Severnyy of the Novaya Zemlya archipelago extending from Mys Zayats to the mouth of Reka Spokoynaya on the coast of Karskoye More, including the following islands:

1. Ostrova Gol'fstrim.
2. Ostrova Bol'shiye Oranskiye.
3. Ostrova Malyye Oranskiye.
4. Ostrov Bol'shoy Bezymyannyy.
5. Ostrov Malyy Bezym.yannyy.
6. Ostrov Loshkina.
7. Ostrovok Gemskerka.

The following activities are prohibited within the Russkaya Arktika National Park:

1. All economic activity.
2. All human presence outside specially designated routes.
3. Any activities that could disturb wild animals.
4. All fishing (commercial, amateur, or sport).
5. All equipment used to recover aquatic bioresources.
6. All water craft that are not involved with the national park.
7. Any activity that could damage the ecological value of the protected wildlife and associated habitats.

The following activities are permitted within the park:

1. Scientific research.
2. Environmental monitoring.
3. Nature conservation and biotechnical activities.
4. Organization and development of ecological sightseeing paths and routes in specially designated areas of the park.
5. Vessel transits through the area for delivery of services to park employees and visitors as part of cruise travel as long as permission has been granted from the FGBU Natsional'nyy Park Russkaya Arktika.

Mys Sakharova (76°19'N., 64°00'E.), surmounted by a conspicuous cairn, is located 15 miles ENE of Zaliv Chayeva and is fronted by two reefs. The coast between is little indented, but several glaciers descend to the shore. Three islets lie close W of this point. The area in the vicinity of the point has not been fully surveyed and should be avoided. A group, consisting of three islets, lies about 11 miles WNW of the point.

Mys Obrucheva (76°22'N., 64°33'E.), located 8.5 miles ENE of Mys Sakharova, is the N extremity of a small peninsula. A cairn stands on the point and several hills, up to 113m high, stand close S of the peninsula.

4.70 Gavan' Maka (76°22'N., 64°38'E.), is entered between Mys Obrucheva and Mys Sepuchiy, 2.5 miles ENE. Two above-water rocks lie in the NE entrance of this cove and the face of Lednik Brounova, a glacier, extends about 1 mile along its SE side.

The coast trends NNE for 2 miles from the E entrance point to Mys Morennyy. This latter point consists of a steep, hilly projection and a cairn stands 0.8 mile inland from it.

An unexamined shoal has been reported (1940) to lie about 2.5 miles W of Mys Morennyy.

The coast, extending for 2 miles NE of Mys Morennyy, consists of the face of Lednik Anuchin, a large glacier. Beyond this glacier, the coast continues NE for 2 miles to Mys Vize. In the vicinity of Mys Vize, the coast is comparatively low, but, 2.8 miles S of this point, the mountains rise to heights of 500 to 610m.

Numerous below-water and drying rocks lie within 1.8 miles of Mys Vize and a bank, with a depth of 27m, lies about 13 miles NNW of the point.

Mys Balasheva (76°29'N., 65°25'E.) is located 8 miles NE of Mys Vize and the coast between forms a bight, which is open to the NW. From a small point, located 2 miles E of Mys Vize, the face of Lednik Vize, a large glacier, extends E for about 2.3 miles. This glacier is separated from **Lednik Karbasnikova** (76°28'N., 65°24'E.), another glacier, by a spur which descends to the sea from a mountain, 610m high, standing 2.5miles inland. Lednik Karbasnikova is an extensive glacier and its face is about 2.5 miles wide. From this glacier, the coast, which is gently sloping, trends N to Mys Balasheva. This point is surmounted by a cairn and several islets lie 0.6 mile W of it. Above-water rocks lie about 2 miles W and 2 miles NNW of the cairn.

4.71 Mys Pinegina (76°23'N., 65°34'E.), a conspicuous headland, is located 2 miles NE of Mys Balasheva and surmounted by a cairn. It is steep and fronted by several islets on the W side. A reef fronts the N side of this headland and a shoal patch, with a depth of 7m, lies about 4 miles N of it.

Zaliv Inostrantseva (76°35'N., 65°44'E.), which is open to the NW, recedes S between Mys Pinegina and Mys Kushakova, 9 miles NNE. The S side of this bay is indented by a cove and two glaciers descend to the sea and entirely cover its E side. These glaciers, which join about 5 miles inland as they approach the coast, form a continuous seaward face about 20 miles long. Icebergs, calving from these glaciers, make anchorage in this bay very precarious.

The coast between Mys Kushakova and **Mys Karlsena** (77°00'N., 67°40'E.), the N extremity of Novaya Zemlya, has not been sufficiently surveyed to provide any reliable information concerning it.

It has been reported that Mys Medvezhiy, located 7 miles N of Mys Kushakova, and Mys Malyy, located 4 miles father NE, are both conspicuous promontories.

Novaya Zemlya—East Coast

4.72 Between Mys Men'shikova, the SE extremity of Novaya Zemlya, and Mys Rok, the SE entrance point of Proliv Matochkin Shar, 148 miles N, the E coast of Novaya Zemlya trends successively NW, N, and NNE. From Mys Vykhodnoy, the NE entrance point of Proliv Matochkin Shar, the coast trends in a general NE direction for 278 miles to Mys Sporyy Navolok. Between the latter headland and Mys Zhelaniya, 45 miles N, it trends successively NNE, N, and NNW. From Mys Zhelaniya, the coast trends in a general WNW direction for 13 miles to Mys Karlsena.

Except for its central part, the E coast of Novaya Zemlya is fringed by fewer islands and comparatively less indented than the S or W coasts.

From the S end of Novaya Zemlya, the elevation of the land backing the E coast increases gradually towards Proliv Matochkin Shar, then decreases to the N. Glaciers descend to the shores of several of the inlets which indent the E coast of the N island. Between the parallels of 75°N and 76°N, the seaward faces of a number of glaciers constitute conspicuous portions of the coast.

The depths lying off almost the entire E coast of the N island are too great for anchoring. However, some of the coastal indentations of both islands afford sheltered anchorage.

Caution.—The charting of the greater part of this coast is based on rough running surveys and reconnaissance. Offshore soundings are few and some extensive sea areas adjacent to the coast are wholly unexamined. Vessels should proceed with great caution when approaching this coast.

The possibility of a vessel encountering masses of ice off the E coast of Novaya Zemlya, at any time during the navigation season, should not be disregarded.

4.73 Between Mys Men'shikova and Zaliv Abrosimova, 83 miles NNW, the coast is only slightly indented. Several rivers, their mouths accessible only to small craft, intersect this stretch of coast. Several bays and inlets lie N of Zaliv Abrosimova and become larger as the coast nears the entrance of Proliv Matochkin Shar, the strait which divides Novaya Zemlya into two parts. Most of these indentations have had little or no examination and should not be entered without local knowledge. With the exception of a polar station, standing within Zaliv Abrosimova, and occasional log houses and huts used by hunters and fishermen, there are no settlements reported to be situated on the E coast of Novaya Zemlya to the S of Proliv Matochkin Shar.

Between Mys Men'shikova and Zaliv Abrosimova (71°56'N., 55°30'E.), depths of 20 to 40m lie about 3 miles offshore. There are no known off-lying dangers except for a shoal, with a depth of 5.9m, which lies about 5 miles E of Mys Ratmanova.

Caution.—Several areas lying off the coast, between **Mys Kurochkina** (71°57'N., 55°29'E.) and Zaliv Litke (72°25'N., 55°32'E.) and between Zaliv Shuberta and Zaliv Brandta, have not been examined and care is necessary when navigating in or near them.

4.74 **Mys Ratmanova** (71°07'N., 56°18'E.) is located 35 miles N of Mys Men'shikova. The E coast of the S island of Novaya Zemlya, between these points, has no indentations of navigational importance.

Mys Perovskogo (70°47'N., 57°25'E.), a rocky headland, is located 7 miles NW of Mys Men'shikova. The intervening coast is 12m high and the land rises gently from it to the hills inland.

Between Mys Perovskogo and Mys Berkha, 13 miles NW, the coast recedes slightly to form two bights, the shores of which are low, flat, and sandy.

The mouth of Reka Kumzha lies 10 miles NW of Mys Perovskogo. It was reported that a conspicuous cross and a hut stand near the entrance of this river.

4.75 From Mys Berkha, the coast trends NW for 15 miles to Mys Ratmanova. This stretch of shore consists mainly of sandy beaches with low cliffs in places. Small rivers flow into the sea close N and S of this point.

The mouth of Reka Kolodkina lies 6 miles NW of Mys Berkha; it has been reported that there usually is a large amount of driftwood near the river entrance. Depths of 2.7m lie over the bar and 3.7m within the fairway channel. A small sand bank lies close to the S side of the river entrance. The river flows between high banks, except at the S side of the entrance where the bank is low. Small craft with local knowledge can obtain good anchorage off this low section of the bank.

Ratmanov Beacon (71°03'N., 56°29'E.), 6.4m high, stands on high ground, 2.5 miles SE of Mys Ratmanova.

Between Mys Ratmanova and the E entrance point of Zaliv Abrosimova, 50 miles NNW, three small rivers enter the sea. The mouths of Reka Kazakova and Reka Butakova lie 5 and 11 miles, respectively, NNW of Mys Ratmanova. The mouth of Reka Savina lies 16 miles NNW of the mouth of Reka Butakova.

Reka Kazakova (Reka Kozakova) has a depth of 2.1m in its entrance, which is 33m wide. A hut is reported to stand near the mouth of this river. Hills, up to 55m high, stand to the N of the river.

Reka Savina has an entrance about 0.2 mile wide and a depth of 2.7m over the bar. A hut is reported to stand near this river mouth, which is difficult to identify. Shoal flats fringe both the entrance points and numerous sandy banks lie in the delta. The river narrows about 0.5 mile within its mouth and flows between vertical banks. The currents in the river are strong.

4.76 **Savina Beacon** (71°34'N., 55°41'E.), formed by a pyramid, stands 3 miles N of the mouth of Reka Savina.

Between the mouth of Reka Savina and Zaliv Abrosimova, 26 miles N, several small points, 18 to 27m high, are located at intervals of about 4 miles. Most of these points are fringed by rocks, which are marked by breakers. The coast between the points is low.

Zaliv Abrosimova (71°56'N., 55°30'E.), a bay, extends 2.5 miles W and its shores are mostly low. The undulating plain, which characterizes the S part of Novaya Zemlya,

changes close S of this bay to moderately high and terraced hills.

The bay entrance is 0.5 mile wide and two islets lie close S of Mys Kurochkina, the N entrance point. The fairway channel leading between these islets and the S entrance point has depths of 10 to 20m. A shoal, with a least depth of 3m, lies about 0.8 mile SSE of Mys Kurochkina and breakers have been reported to occur about 0.5 mile S of the entrance. Depths of 14 to 18m lie in the central part of the bay, but the W part is encumbered with deposits from the river, which flows into the head. A beacon, formed by a framework tower, stands on the S entrance point of Zaliv Abrosimova and a polar station is situated in the bay.

Small vessels can obtain anchorage, in a depth of 15m, mud and sand, about 0.3 mile off the N side of the bay and 1.2 miles W of Mys Kurochkina. A swell enters the bay with winds from seaward, but landing can be effected within a small cove on the S side. Large deposits of driftwood are reported to accumulate along the S shore of this bay.

Caution.—Zaliv Abrosimova and the adjacent sea area have been only superficially examined. The bay should not be entered without local knowledge.

4.77 Between Zaliv Abrosimova and Zaliv Litke, 30 miles N, the coast is indented by several coves and bights, none of which have been surveyed. In the vicinity of Mys Yershova, located 8 miles N of Mys Kurochkina, the coastal hills are 90 to 120m high, but they decrease in height farther to the NNE.

The coast between the N entrance point of Zaliv Abrosimova and Zaliv Litke is very uniform in appearance. It consists mainly of cliffs, interspersed in places by shingle beaches on which there is usually great quantities of driftwood. The land rises gradually from the coast to heights of 60 to 80m, at a distance of 1.5 miles inland, with several conspicuous isolated summits, up to 150m high.

Numerous surveying marks, consisting of cairns with central poles, are reported to stand about 3 to 4 miles inland.

Mys Vishnevskogo (72°14'N., 55°37'E.), located 11 miles N of Mys Yershova, is the extremity of a conspicuous, bold, and narrow promontory. Several rocks have been reported to lie about 0.5 mile offshore, 3 miles S of this point. A beacon, 12m high, stands 2 miles WNW of the point.

The coast recedes about 5 miles NNW of Mys Vishnevskogo and forms a large bay, which is unsurveyed.

Ostrov Mekhrengina (72°18'N., 55°29'E.), a flat-topped and steep-sided islet, lies in the entrance of this bay, 6 miles NW of Mys Vishnevskogo. It is 20m high and conspicuous from seaward.

Zaliv Litke (72°25'N., 55°32'E.) is entered close S of a point located 8 miles N of Ostrov Mekhrengina. This cove, which has an entrance 1.2 miles wide, indents the land for a considerable distance in a W direction. The shores of the cove are backed by hills, up to 180 high.

Two islets, the easternmost of which is known as Ostrov Fedora, lie off the entrance to the cove. A reef extends N from these islets and terminates in a group of above-water rocks. A beacon, formed by a framework tower 12m high, stands on the high S part of Ostrov Fedora. A rocky shoal, steep-to on its E side, lies about 0.5 mile E of Ostrov Fedora.

The cove has depths of 9 to 62m, but is shallow near its head, where a river empties through a delta. A shoal, with a least depth of 3.4m, lies near the S entrance point of the cove. Tidal currents in the cove have been observed to set E and W at rates of about 0.5 knot during calm weather. The cove is sheltered and provides good holding ground. Small vessels with local knowledge can anchor close off the S shore of the cove, close within the S entrance point. Such vessels should pass to the S of the islets lying in the entrance.

4.78 Zaliv Stepovogo (72°29'N., 55°36'E.) is a fjord-like inlet which indents the coast 4 miles N of Zaliv Litke. This inlet has not been examined and should be entered only with local knowledge and great caution. From the entrance, which is 1 mile wide, the outer part of this inlet trends WNW for about 3 miles to the head. An inner arm branches off the N side of the inlet, 2 miles inside the entrance, and extends WNW for 4.5 miles. The shores of the inlet are steep in most places. A conspicuous hill, 213m high, rises N of this inlet and a cairn stands on high ground near the head. The middle part of the outer entrance of the inlet was reported to have a depth of 37m. Islets lie 0.2 mile S and 0.4 mile E of the N entrance point. A rocky shoal, almost awash, lies about 1.5 miles E of the S entrance point.

Between Zaliv Stepovogo and Mys Galla, 10 miles NNE, the coast is irregular, but has no indentations accessible to vessels other than small craft. Between the N entrance point of Zaliv Stepovogo and a small bay, 3 miles NNE, cliffs, up to 46m high, rise from the sea. Two rocks lie 0.5 mile NE of Mys Galla, which forms the outer end of a precipitous headland. A framework beacon, 12m high, stands 2 miles W of this point.

4.79 Zaliv Shuberta (72°44'N., 56°02'E.), a fjord-like inlet, has high and generally precipitous shores and indents the coast between Mys Yushkova, located 6 miles NNW of Mys Galla, and Mys Rakhmanina, 3.5miles NE. From a distance of 8 to 10 miles E, Mys Yushkova appears as a conspicuous landmark because of its bluff outline and dark color. The coast for several miles on either side of the inlet entrance is yellowish in color and rises from the sea in terraces. High mountains, which are usually snow-covered, can be observed inland, beyond the coastal hills. A prominent surveying mark, in the form of a small pyramid, stands on Mys Yushkova and several others, consisting of cairns with central poles, are situated on the shores of the inlet.

Mys Yushkova is fringed by rocks and a small rocky islet, from which a sunken ledge extends about 0.5 mile SW, lies close off Mys Rakhmanina. About 5 miles WNW of Mys Yushkova, two spits project from the sides of the inlet and narrow the width to about 0.5 mile. A passage lies between these spits and leads to the inner part of the inlet, which is divided into two coves by a peninsula. Streams flow through broad valleys into both these coves and form considerable deltas.

The S side of the inlet is steep, terraced, and rises to a tableland, 180 to 240m high. The N side is not as steep. Mys

Zhdanko, 100m high, is located at the head of the inlet and a mountain, 970m high, stands close SW of it.

Depths of 50 to 80m were reported (1936) to lie in the middle of the outer part of the inlet. However, an isolated depth of 16m was reported to lie about 1.5 miles N of Mys Yushkova; lesser depths may also be located in this vicinity. In the inner part of the inlet, the depths were reported to be irregular and varied from 40 to 115m. To the E of the narrows, the depths were also reported to be irregular and varied from 30 to 60m.

4.80 Between Mys Rakhmanina and Zaliv Brandta, 12 miles NNE, the coast consists of mostly continuous cliffs, 20 to 30m high. From these cliffs, the land rises gradually to hills standing about 2 miles inland. A pyramidal surveying mark stands on Mys Shuberta, a headland, which is located 2 miles ENE of Mys Rakhmanina. From this headland, the coast trends NNE for 4.5 miles to Mys Kutuzova and then N for 5.5 miles to the S entrance point of Zaliv Brandta.

Caution.—The stretch of coast between Mys Rakhmanina and Zaliv Brandta should not be approached within 2 miles as the sea area adjacent to the shore has not been surveyed.

4.81 Zaliv Brandta (72°58'N., 56°16'E.) extends W for 11 miles from its entrance, which is 2.5 miles wide and rocks, which break, fringe both its entrance points. A shallow rocky patch, which breaks in a swell, lies near the middle of this inlet, 4.5 miles W of the entrance. Ostrov Khabarova lies 0.5 mile NE of the S entrance point. A beacon, 5m high, stands about 2.5 miles NNE of the N entrance point.

Anchorage can be obtained, by vessels of moderate size, within a small cove lying on the N side of the inlet, 7.5 miles from the entrance. This roadstead is sheltered from the E by a low spit. The cove has depths of 8 to 12m, decreasing to 3m near its head, over a bottom of clay.

Zaliv Klokova (73°03'N., 56°24'E.) indents the coast between Mys Brandta, located 3.2 miles NE of the N entrance point of Zaliv Brandta, and Mys Klokova, 5.2 miles NNE. This inlet extends W for 10.5 miles from the middle of its entrance. Rocks extend up to 2.3 miles NE from Mys Brandta and several shoals encumber the entrance of this inlet. Vessels should not attempt to enter without local knowledge.

Proliv Matochkin Shar, which is entered from the Kara Sea between Mys Rok, located 3 miles N of Mys Klokova, and Mys Vykhodnoy, 5.5 miles NE, is described with the W coast of Novaya Zemlya in paragraph 4.46.

4.82 The coast between Mys Vykhodnoy and Mys Dal'niy, 126 miles NNE, is indented by numerous bays and inlets. Several of these inlets are fjord-like in character and extend considerable distances inland. Because of the deep water found in most of these indentations, the areas available for anchorage are restricted. From the high mountains standing in the vicinity of Proliv Matochkin Shar, the land within the coast decreases in height to the N. Glaciers descend from the icecap, which covers much of the island, to the shores of several of the inlets

Ice.—Along the coast between Mys Pyat' Pal'tsev and Ostrov Pakhtusova, observations made during the navigation season show the presence of ice to be very irregular. In some years, no ice was observed off this stretch during August, September, or the first part of October. However, in other years, drift ice was seen throughout the navigation season. Off this part of the coast, the sea is usually clear of ice in late July or early August. It freezes over about the middle of October. In those inlets to which glaciers descend, ice, in the form of small icebergs, may be found at any time. The icebergs, which attain heights of up to 12m above the water, drift out to sea and may be encountered near the coast between **Mys Dal'niy** (75°01'N., 60°43'E.) and **Zaliv Medvezhiy** (75°18'N., 61°51'E.). They are sometimes seen at a considerable distance offshore.

Tides—Currents.—Between **Mys Pyat' Pal'tsev** (73°59'N., 58°14'E.) and **Ostrov Pakhtusova** (74°24'N., 59°06'E.), a current setting S, with a rate of about 0.2 knot, has been observed. Tidal currents along this stretch attain rates of about 0.8 knot. Their directions and rates are determined mostly by the configuration of the coast.

4.83 Between Mys Vykhodnoy and Mys Kankrina, 4.8 miles NE, the coast is mostly cliffy and fringed, in places, by rocks which lie up to about 0.2 mile offshore.

Zaliv Kankrina (73°18'N., 56°48'E.) recedes NNW for 3 miles between Mys Kankrina and its W entrance point, located 1.5 miles W. The W and E sides of this bay are bluff, but the shore at its head is low. The bay is sheltered from all except S winds, and affords anchorage, in a depth of 9m, off the W side of Mys Kankrina, the E entrance point.

Mys Kankrina, 15 to 20m high and precipitous, is the S extremity of a small peninsula, which is connected to the mainland by a low isthmus. This point is fronted by shallow rocks and a detached rock, 15m high, lies 0.2 mile off the E side of the isthmus.

Between Mys Kankrina and Mys Tsebrikova, 11 miles NE, the coast consists mainly of cliffs. From these cliffs, the land rises in terraces to hills which attain heights of 100 to 200m, about 2 miles inland. A conspicuous hill, 244m high, stands 3 miles N of Mys Kankrina. This stretch of coast is fronted by rocks and a reef, the position of which is doubtful, extends about 0.8 mile offshore, 1.5 miles S of Mys Tsebrikova.

4.84 Zaliv Chekina (73°34'N., 56°59'E.), an inlet, extends NW for 15 miles from its entrance, which lies between a point, located 2.5 miles N of Mys Tsebrikova, and another point, 3.5 miles NNE. Shallow rocks fringe both the entrance points and extend up to about 0.2 mile seaward. A hut has been reported to stand near the S entrance point.

In the entrance of this inlet, depths of 60m lie off the S entrance point and depths of 18m lie about 2 miles S and 4 miles ESE of the N entrance point. A running survey (1933) reported that depths of 90m lie in the middle of the inlet about 4.5 miles from the entrance. The inlet is exposed to E and SE winds and there is no shelter from ice in its outer part.

Caution.—An ammunition dumping area lies about 15 miles E of the entrance to Zaliv Chekina. Anchoring, fishing, or using explosives in this area is not recommended.

4.85 The coast between the N entrance point of Zaliv Chekina and Mys Akhlestysheva, 3 miles NE, forms a bight, which is open to the SE, but sheltered from W winds and partially from N winds. From Mys Akhlestysheva, the coast trends NE for 2 miles to Mys Voronina and then N for 2.8 miles to the S entrance point of Zaliv Neznayemyy. This stretch of coast consists of cliffs from which the land rises in terraces to hills inland. Numerous rocks fringe the shore.

A framework beacon, 7m high, stands at an elevation of 30m on Mys Voronina and is conspicuous from the S and SW.

Zaliv Neznayemyy (73°40'N., 57°39'E.), an extensive inlet, is entered close S of Mys Burlivyy. From the middle of the entrance, which is 4.5 miles wide, this inlet trends first NNW, then NW and W, and finally NW again for a total distance of 20 miles. The inner part of the inlet narrows to a width of less than 0.4 mile, about 16 miles from the entrance, and then widens somewhat into a basin at the head. A low, shingle spit extends from the S shore of the head and a small cove lies close W of it. Lednik Krasnov, a glacier, descends to the S side of the inlet near the narrow part. The shores of the inlet increase in height from the outer part toward the head. Both sides of the narrowest part are 500m high and precipitous. The small cove lying at the head is bordered by mountains, up to 610m high, and a small cairn, which marks an observation spot, stands at its SW corner.

The S entrance point of the inlet is fronted by a number of above-water rocks and shallow rocks lie within 1 mile of the W shore for about 5 miles NNW of this point. Below and above-water rocks fringe Mys Burlivyy and a group of shallow rocks lies in the middle of the entrance, about 1.8 miles S of this point. A drying rock lies near the S shore of the inlet, 0.5 mile NW of the glacier. Another drying rock lies near the N shore opposite the glacier.

The inlet has depths of 36 to 55m in the entrance. During a running survey (1933), depths of 77 to 137m were reported to lie between the entrance and narrows, decreasing to 37m near the head.

4.86 Between Zaliv Neznayemyy and Zaliv Medvezhiy, the coast trends NE for 5.2 miles from Mys Burlivyy to a nameless point and then N for 7.5 miles to Mys Bogolyubova. This latter point is 31m high and steep with a small cove lying on its S side.

Ostrov Roginskogo and Ostrov Shishmareva, two islets, lie 3 miles SSE and 1.5 miles ENE, respectively, of Mys Bogolyubova. Numerous below and above-water rocks surround the former islet and lie between it and the latter. Heavy breakers have been reported to occur between these two islets and vessels should not attempt to pass between them.

Zaliv Medvezhiy (73°55'N., 57°53'E.), one of the largest inlets in Novaya Zemlya, trends in a general NNW direction for 18 miles from its entrance, which lies between Mys Bogolyubova and Mys Pyat' Pal'tsev, 8.2 miles NE. The shores of this inlet are generally high and steep in places, especially near Mys Bogolyubova, which is 30m high. They consist mostly of earthy bluffs covered with tundra and broken slate, but in other places, they are formed by bare, black slate cliffs. A glacier, with a precipitous face 22m high, descends to the head of the inlet. Zaliv Romanova, an arm, branches from the W side of the inlet, 11 miles within the entrance, and extends W for 6 miles. Two small glaciers descend along the N shore of this arm.

Mys Pyat' Pal'tsev, the E entrance point of the inlet, is formed by a flat-topped headland, 40m high. This point is the E extremity of an island which is separated from the mainland by a narrow passage. Shallow rocks lie off both the entrances of this passage and numerous below and above-water rocks lie up to about 1.5 miles offshore between the island and a point located on the NE side of the inlet, 4.5 miles W. A trading post for hunters is situated on the N side of this island.

The depths in this inlet are considerable. The entrance fairway has a depth of 110m and depths of 68 to 165m lie between it and the head. An isolated depth of 18.3m was reported to lie about 0.7 mile S of Mys Metts, which projects from the E side of the inlet, 8.5 miles within the entrance.

Anchorage may be taken, in depths of 15 to 19m, small stones, close S of Mys Metts. However, better anchorage can be obtained, in a depth of 20m, about 0.2 mile off the NE part of the inlet and adjacent to a cross which stands near the E moraine of the glacier. Vessels using this roadstead will not be inconvenienced by icebergs from the glacier, as the main mass of ice usually passes along the W shore of the inlet.

4.87 Zaliv Khramchenko (74°10'N., 58°32'E.), an irregular-shaped bay, is entered between Mys Pyat' Pal'tsev and Mys Krasheninnikova, 9 miles NE. Hills, up to 200m high, rise from the N part of the W side of this bay.

Mys Krasheninnikova, a precipitous headland, is surmounted by a framework beacon and forms the E extremity of Poluostrov Krasheninnikova, a peninsula, which projects E along the N side of the bay. This peninsula is narrow, 50 to 60m high, and bordered by shingle beaches.

A peninsula, which projects S from Poluostrov Krasheninnikova, divides the N part of the bay into two coves. The W cove has not been fully examined and its entrance is obstructed by a rugged islet, 15m high, and several rocks over which the sea breaks when there is any swell. The entrance of the E cove is obstructed by an above-water rock with a shallow rock lying about 1 mile S of it.

A trading post is situated near the S shore of Poluostrov Krasheninnikova. The depths in this bay are almost unknown and only vessels with local knowledge should attempt to enter.

4.88 Zaliv Basova (74°07'N., 58°32'E.), an inlet, is entered between Mys Krasheninnikova and Ostrov Plitnyakovyy, 2 miles N. This latter island is 60m high and its shores appear as bold cliffs, 30 to 38m high, when viewed from seaward. It lies close off the E end of a peninsula which separates this inlet from Zaliv Shamardina. Numerous rocks front the island and lie up to about 1 mile E of it. A cove lies at the head and is

connected to the inlet by a narrow passage. Depths of 50 to 150m lie about 2 miles off the entrance to this inlet.

Zaliv Shamardina (74°12'N., 58°41'E.) is entered between Ostrov Plitnyakovyy and Mys Lutkovskogo, 4 miles NE. This bay is divided into two coves by a peninsula which projects E and terminates in a low point with a conspicuous and dark-colored rock at its extremity. The N part of the bay has not been examined and is obstructed by a small and rugged islet which is surrounded by below-water and shallow rocks. Vessels should not enter the bay without local knowledge.

Mys Lutkovskogo, 40m high, is formed by a rocky precipitous headland; the depths in its vicinity are irregular. When seen from a distance to the S or N, this headland appears as an islet with a steep seaward side. A framework beacon, 6m high and surmounted by a spar and crosspiece, stands on this point.

4.89 Zaliv Tsivol'ki (74°24'N., 58°56'E.) is entered between Mys Lutkovskogo and a point, 14 miles NNE. This inlet extends NW for 17 miles and several islands and islets lie within it. Ostrova Pakhtusova, a group of islands, lies on the N side of the entrance to this inlet. About 5 miles inside the entrance, the inlet narrows suddenly to a width of about 4 miles. It then decreases gradually in width toward the head, where Lednik Serpimolot, a glacier, descends. The depths are considerable throughout this inlet, but vessels should not enter without local knowledge.

The W side of the inlet for 5.5 miles to the N of Mys Lutkovskogo is 40 to 60m high and indented by several coves which are separated by bold points. Zaliv Nezametnyy, the largest of these coves, is entered 2 miles N of Mys Lutkovskogo, but its entrance is not easily identified from seaward.

The N side of the inlet between the N entrance point and Mys Pereval'nyy, 3.5 miles W, is 15m high and bordered by a beach. To the N of the latter point, the shore becomes higher and hilly. Mys Briketovyy, located 2 miles WNW of Mys Pereval'nyy, is a small, dark-colored, and rocky point which is separated from the foot of the coastal hills by a beach. Shallow rocks, on which breakers appear when there is any swell, lie close off this point. A conspicuous hummock, formed by a landslide from the hills, rises from a low point about 3.8miles NW of this point.

Anchorage may be taken, in depths of 14 to 20m, about 0.5 mile offshore, near the entrance to a shallow cove which lies 5 miles NNW of Mys Lutkovskogo. Anchorage may also be obtained, in a depth of 20m, mud, within a bight indenting the W side of Mys Briketovyy.

Gora Chornaya (74°20'N., 58°35'E.), 462m high, rises 7 miles NNW of Mys Lutkovskogo. This mountain has a dome-shaped summit and its S and E sides are formed by sheer cliffs, 200m high. These cliffs are always free from snow and are conspicuous from a considerable distance to seaward.

4.90 Ostrov Tsivol'ki (74°19'N., 59°03'E.), the southernmost island of the Ostrova Pakhhtusova group, lies with its S extremity located 8 miles NE of Mys Lutkovskogo. This coast of this island is very indented and faced by sheer cliffs in places. Partly-sunken ledges front the projecting points. The island is 61 to 70m high, but its surface is uneven. Another island lies close W of the N part of Ostrov Tsivol'ko. The passage separating these islands is narrow, winding, and accessible only to small craft.

Rocky islets, 7m high, lie 1.8 miles S and 1.5 miles SW of the S extremity of Ostrov Tsivol'ki. Both of these islets are fronted on their S sides by rocky ledges, which break. A shallow rock, which also breaks, lies about 2.5 miles E of the same extremity. A shallow rock, the position of which is doubtful, is reported to lie about 5 miles SE of the SE extremity of Ostrov Tsivol'ki.

Ostrov Ploskiy (74°22'N., 59°13'E.), lying 1.5 miles E of Ostrov Tsivol'ki, has a level surface and sheer sides, 30m high. An above-water rock lies close off the outer end of a low spit which projects from the NW side of this islet.

A depth of 16.5m was reported to lie about 1.5 miles SSE of this islet and may indicate the existence of a dangerous reef in this vicinity.

Ostrov Pakhtusova (74°25'N., 59°19'E.), lying 1 mile E of the N entrance point of Zaliv Tsivol'ki, is 50m high. The shores of this island are mostly steep, becoming precipitous in places. A rocky islet lies 3.2 miles E of the SE extremity of the island and several other dangers lie within about 4 miles of it. A framework beacon, 10m high, stands on the SE part of this island.

A small settlement is situated on the N part of the W side of the island. From seaward, the S approach to this settlement leads between Ostrov Ploskiy and Ostrov Pakhtusova and then between the latter island and the N part of Ostrov Tsivol'ki. A channel, with a depth of 13.7m in the fairway, leads between Ostrov Pakhtusova and Ostrov Zherdi, an island, which lies between Ostrov Pakhtusova and the N entrance point of Zaliv Tsivol'ki. A roadstead lies N of Ostrov Zherdi, between the N part of the W side of Ostrov Pakhtusova and the mainland. The depths in this roadstead are irregular and several shoal patches, with depths of 3.9m, lie in its N part. Vessels may anchor, in depths of 20 to 29m, shingle, close off the settlement. This roadstead is sheltered from the N by a chain of rocks, which extends from the mainland, and by several unsurveyed islands.

4.91 Mys Vikulova (74°36'N., 59°52'E.) is located 16 miles NE of the N entrance point of Zaliv Tsivol'ki and is fringed by below and above-water rocks. Zaliv Oga, an extensive and unsurveyed bay, lies between these two points and a glacier descends to its head.

Zaliv Sedova (74°40'N., 60°00'E.) indents the coast between Mys Vikulova and Mys Vysokiy, 10 miles NE. Hills rise in terraces from both sides of this inlet and most of those bordering its inner part have pointed summits. The hills standing on the S side of the inner part are 120 to 230m high and those standing on the N side are 180 to 200m high. The width of this inlet is reduced to about 0.7 mile off Mys Kertselli (Mys Quercelli), which projects from the NE side, 7.5 miles inside the entrance. The inner part of the inlet, which is about 1 mile wide, then trends NE for 5 miles. A

reef, partly above water, extends about 1 mile from the SW shore of the inlet, 4 miles NNW of Mys Vikulova. A group of above-water rocks has been reported to lie near the SW shore, 3.5 miles above this reef.

Although the inner part of the inlet is sheltered, its great depths restrict anchoring. Vessels with local knowledge can obtain anchorage close to the shore inside of Mys Kertselli and at the extreme head of the inlet. Vessel at anchor in the inlet should take precautions against the severe squalls which may blow down from the hills. When entering this inlet, vessels should keep closer to the NE side in order to avoid the dangers fronting Mys Vikulova and the SW shore. Local knowledge is required.

Zaliv Neupokoyeva (74°48'N., 60°21'E.) is entered between Mys Vysokiy, a conspicuous headland, and Mys Nestora Smirnova, 6 miles NE. This inlet is open to E and SE winds and is partly protected from NE winds. It is bordered by hills, 90 to 210m high. The entrance channel has depths of 27 to 113m in the fairway a depth of 20m lies near the head. A shoal, with a depth of 13.1m, lies in the center of the entrance, about 2.5miles SSW of Mys Nestora Smirnova. A reef, partly above water, extends about 0.6 mile from the SW shore of this inlet, 2.3 miles NW of Mys Vysokiy.

From Mys Nestora Smirnova, the coast trends in a general NNE direction for 7 miles to Mys Bogushevicha.

4.92 Zaliv Rusanova (74°58'N., 60°30'E.) recedes NW between Mys Bogushevicha and Mys Dal'niy, 6 miles N, and has depths of 37 to 110m in its outer part. The W side of this inlet is indented by three coves and another one lies at its N corner.

The southernmost cove on the W side has not been examined and a reef extends from its N entrance point. The middle cove has comparatively shelving shores and a hill, 213m high, rises near its SW side. It has depths of 12 to 25m and a rock lies close off the N shore. The northernmost cove has an entrance about 1 mile wide and extends 1.5 miles inland. Hills, 215 to 245m high, stand near the shore of this cove. Several above-water rocks lie off its N entrance point and a reef, parts of which are above water, extends for almost half of the width of the cove from the middle of its N side. This cove has depths of 16 to 35m and anchorage, sheltered from all winds, may be obtained in its W part.

The cove at the N corner of the inlet has an entrance 0.5 mile wide and extends NNE for 2 miles. It has depths of 46 to 80m in the middle part and a glacier descends to the head.

The character of the coast to the NE of Mys Dal'niy changes and becomes comparatively less broken. Between Mys Dal'niy and Mys Middendorfa, 107 miles NE, parts of the coast are faced by a number of extensive glaciers. Zaliv Blagopoluchiya, the only indentation of navigational importance, lies about midway along this stretch.

The coast of the NE part of Novaya Zemlya consists mainly of several bights separated by points and headlands. Several islets lie off this coast between Mys Zhelaniya and Mys Karlsena.

Caution.—Between Mys Dal'niy and Mys Karlsena, ice bergs are frequently encountered near the coast and especially near the seaward face of the glaciers. At times, they may be encountered at a considerable distance offshore.

4.93 Mys Medvezhiy (75°18'N., 61°51'E.), 26m high, is located 25 miles NE of Mys Dal'niy. Ostrov Zelenyy, a low island, lies 8 miles NNE of Mys Dal'niy. A shoal, with a depth of 1.5m, lies about 5 miles S of this island. Isolated depths of 11 and 10.5m are reported to lie about 5 miles SE and 13 miles E, respectively, of the island.

Bukhta Yekaterininskaya lies on the W side of the peninsula which projects S and terminates in Mys Medvezhiy. It extends N for 3 miles and is 2 miles wide at the entrance. This bay has shelving shores and gives the appearance of having shallow depths within it. However, it was reported that a depth of 90m lies in the entrance and a depth of 40m lies about 1.5 miles inside the entrance. Several isolated hills stand about 2 to 3 miles inland at the W side of this bay.

Zaliv Vlas'yeva (75°24'N., 62°01'E.) lies between Mys Medvezhiy and Mys Edvard, 9 miles NE. The tongue of a glacier descends to the W shore of this bay, near the head. A shoal, with a depth of 8.2m, lies in the approach to the bay, about 5.5 miles ENE of Mys Medvezhiy.

A large glacier, with a seaward face about 7 miles wide, is located between Mys Edvard and **Mys Kireyeva** (75°37'N., 63°32'E.), 23 miles NE.

4.94 Zaliv Blagopoluchiya (75°37'N., 63°40'E.) extends N for 6 miles and is entered between Mys Kireyeva and Mys Opasnyy, 3.5 miles E. This inlet narrows to a width of about 0.5 mile near its head and hills, 150 to 320m high, rise on both its sides.

The Novaya Zemlya icecap is located 4.2 miles from the head of this inlet and descends to the sea, in the form of glaciers, to the SW and NE of the inlet. Numerous streams flow into the inlet from the icecap.

Mys Kireyeva is formed by a slightly projecting hummock, 10m high. Mys Opasnyy is located at the S extremity of a peninsula and rises to a conical hill, 55m high. A beacon, 12m high, stands on this point. A reef extends 3 miles S from Mys Opasnyy and several shallow rocks lie within 3 miles SE, S, and SW of the point. A shoal patch, with a depth of 11.4m, lies in the middle of the entrance fairway, about 1.8 miles WNW of this point.

About 2.3 miles NNE of Mys Opasnyy, the peninsula is joined to the mainland by a low and sandy isthmus, 0.2 mile wide. A polar station is situated on the isthmus.

The land on the E side of the inlet rises in terraces to Gora Yakobi, which is 215m high and stands 4 miles N of Mys Opasnyy. On the E side of the head, a river flows into the inlet and is fronted by an extensive drying alluvial flat which extends up to 0.8 mile offshore.

The depths throughout the inlet are irregular, being generally greater in the inner part. Depths of 35 to 137m lie in the outer part and depths of up to 165m lie in the inner part. The shores of the inner part are steep-to with depths of 60 to 70m lying 300m offshore. Except off the mouth of the river at the E side, depths of not less than 10m lie up to about 200m off the head. Vessels are recommended to obtain anchorage,

in depths of 20 to 50m, sand and shingle, in the NW part of the head.

Caution.—A local magnetic anomaly has been reported to exist to the S of**Mys Edvard** (75°24'N., 62°15'E.).

4.95 Between Mys Opasnyy and Mys Middendorfa, 49 miles ENE, four glaciers, known collectively as Lednik Nordenshel'da, descend to the coast. These glaciers appear from seaward as white strips against the high land backing the coast. The hills rising to the NE of Zaliv Blagopoluchiya are 145 to 190m high, but farther NE, they gradually become lower. Between the glaciers, the coast slopes gently to the sea and is indented by several small bights.

The seaward face of **Lednik Vershinskogo** (75°44'N., 64°20'E.), the southwesternmost glacier of Lednik Nordenshel'da, commences about 7 miles NE of Mys Opasnyy and is 3.2 miles wide. A shoal, with a depth of 8.2m, is reported to lie about 2.5 miles offshore, 10 miles ENE of Mys Opasnyy and abreast this glacier.

Between Lednik Vershinskogo and Lednik Rozhdestvenskogo, 8 miles ENE, the stretch of high coast is backed by isolated hills, 210 to 230m high. The face of Lednik Rozhdestvenskogo is about 4.5 miles wide and it projects about 1.5 miles seaward from the adjacent shore. Two high hills, the northernmost of which has a flat summit, rise near the SW edge of this glacier.

The face of the glacier, known as Lednik Novopashennogo, commences about 7.5 miles ENE of Lednik Rozhdestvenskogo and extends for about 3.5 miles along the coast. About 4.2 miles ENE of the former glacier, the seaward face of Lednik Roze, which is about 4.5 miles wide, commences along the coast.

4.96 Zaliv Techeniy (76°01'N., 65°30'E.) is entered between a point, located 3 miles ENE of Lednik Roze, and Mys Middendorfa, 4 miles E. This bay is open to the S and has a depth of 9m at its head.

Between Mys Middendorfa and Mys Sporyy Navolok, 27 miles ENE, the coast is uniformly hilly. It is especially bold for about 2 miles on either side of a sandy and deep gorge, about 1 mile wide, which is located 15 miles NE of Mys Middendorfa.

Bukhta Vitney (76°13'N., 67°52'E.) is entered between Mys Chorny and Mys Danilov, 3 miles E. Several rocks are reported to lie offshore, SW of this bay. Vessels can obtain anchor, in a depth of 9m near the head of the bay. A stone beacon stands on Mys Danilov and a cairn, visible from seaward, stands 0.5 mile inland NW of it.

Caution.—A shoal bank, with a least depth of 4m, was reported (1963) to lie in approximate position 76°01'N, 66°48'E.

4.97 Mys Sporyy Navolok (76°12'N., 68°21'E.), located 3.5 miles E of Mys Danilov, is a bold headland projecting 1.5 miles E from the general line of the coast. Below and above-water rocks fringe this headland and extend up to about 0.5 mile seaward of its S extremity, where breakers have been observed.

Mys Konstantina (76°29'N., 69°04'E.) is located 19 miles NNE of Mys Sporyy Navolok and the coast between consists of several bights separated by small points. Two cairns stand on Mys Bismark, a bluff point, which is located 10 miles NNE of Mys Sporyy Navolok. Another cairn, visible from seaward, stands on the slope of a range of rocky hills, up to 220m high, which rises 3 miles W of Mys Bismark.

Between Mys Bismark and Mys Konstantina, the coast is mostly uniform and only slightly indented. Cairns stand on Mys Olyeni and Mys Klimov which are the only two noticeable projections along this stretch of coast.

Mys Konstantina, 20m high, appears from seaward as a black patch against the background of the land and is surmounted by a beacon, 10m high. This headland is fringed by rocks which extend up to about 0.5 mile E of it. A steep-sided and flat-topped islet lies 1 mile N of the headland and is divided by a fissure which is visible from seaward. Below and above-water rocks front the E side of this islet and a rock, awash and upon which the sea breaks, lies about 5 miles N of it.

4.98 Between Mys Konstantina and Mys Zhelaniya, 28 miles NNW, the coast is 50m high. A conspicuous cairn stands 8 miles N of the former point.

Mys Flissinskiy, located 11 miles N of Mys Konstantina, is a narrow, bluff headland fringed by rocks. This headland is 20m high and surmounted by a stone pyramid. Mys Dever, located 5.5 miles N of Mys Flissinskiy, is a bold and rocky point. This point is surmounted by a cairn and fronted on its E and N sides by sunken ledges.

Between Mys Dever and Mys Zhelaniya, several headlands recede inland and gradually increase in height toward the hills, which back this stretch of coast. Cairns stand on Mys Mon and Mys Iogansena, which are located 6 and 10 miles, respectively, NW of Mys Dever. A reef, with a least depth of 3.7m, extends 2.4 miles E from a point on the shore located close S of Mys Mon. A wooden beacon was reported (1938) to stand near the cairn situated on Mys Iogansena.

Bukhta Pospelova (76°54'N., 68°38'E.) is entered between Mys Iogansena and Mys Zhelaniya, 2.5 miles NNW. The shores of this bay are comparatively low and gently sloping. Anchorage can be taken, in depths of not less than 10m, gravel and mud, about 0.4 mile off any part of the shore of the bay. The holding ground is good and the bay is sheltered from N winds, but a swell enters during strong N and NW winds.

Icebergs that drift into the bay often remain there. The drift ice usually stays 2 to 5 miles offshore, but during E winds in July and August, the bay is packed with ice. From the end of August to the end of October, no ice is usually visible from the shore.

Mys Zhelaniya (76°57'N., 68°34'E.), 29m high, is the E extremity of a conspicuous peninsula which has steep sides and a level surface. This peninsula is composed of light gray sand stone and connected to the mainland by a low isthmus, about 300m wide. A conspicuous pinnacle rock stands close off the point and several other large above-water rocks lie within about 0.3 mile E of it.

A polar station, with two radio masts, is situated on the isthmus. A framework tower, 12m high, stands on the peninsula about 0.3 mile W of the point. A radiobeacon was formerly situated at this tower. A cross, 2m high, stands on the cliff top close E of the tower, but it is inconspicuous from seaward. A wooden framework pyramid was reported (1932) to stand close E of the tower.

Caution.—An ammunition dumping area extends about 60 miles N from the vicinity of Mys Zhelaniya. Anchoring, fishing, or using explosives in this area is not recommended.

A probable shoal area, lying about 2 miles N of Mys Zhelaniya, is indicated by stationary ice which has been observed in this vicinity to be apparently aground. Icebergs, with underwater depths of up to 15m, have been observed to pass between this stationary ice and the point.

It is reported that a rock, awash, lies about 10 miles NW of Mys Zhelaniya.

4.99 Ostrov Lozhkina (76°58'N., 68°32'E.), 11m high, lies 1.2 miles NW of Mys Zhelaniya. This rocky islet has steep sides intersected by gullies and a level surface. The N side of the islet is steep-to, but depths of less than 18m lie up to 0.4 mile E and WSW of it.

Ostrova Oranskiye consists of two groups of islets which lie 2.3 miles W of Ostrov Lozhkina and 5 miles WNW of Mys Zhelaniya. The E group comprises of four islets with numerous rocks lying between them. A bank, with depths of 3 to 16m, extends 2.5 miles N from this group. The W group comprises of two islets and an isolated rock. A cross stands on one of these islets. Both groups are conspicuous from the E or W, but from the N, they are difficult to make out clearly against the coastal background.

Breakers have been reported to occur about 1 mile E of the E group and 1.5 miles S of the W group.

Mys Karlsena (77°00'N., 67°45'E.) is located 13 miles WNW of Mys Zhelaniya. The coast between is low and from it, the land rises gradually toward the central part of Novaya Zemlya.

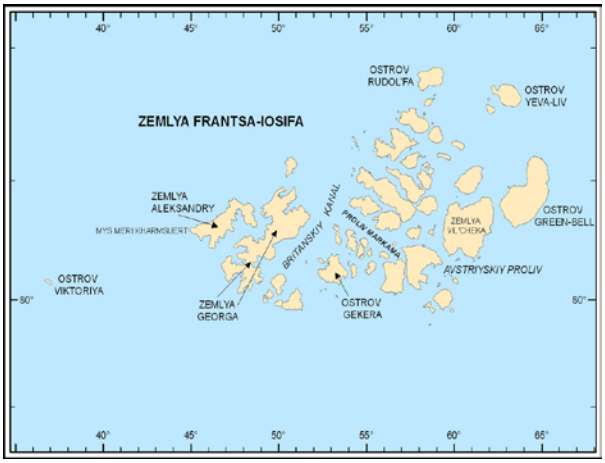
An isolated depth (doubtful sounding) of 44m and a bank, with a depth of 38m, have been reported to lie about 14 miles NNW and about 34 miles NW, respectively, of Mys Karlsena.

Zemlya Frantsa-Iosifa

4.100 Zemlya Frantsa-Iosifa (Franz Josef Land), an extensive archipelago, lies in the N part of the Barents Sea and consists of numerous islands and islets of various sizes. This archipelago is located between the parallels of 79°45'N and 81°50'N, and the meridians of 42°00'E and 65°30'E.

Britanskiy Kanal and Avstriyskiy Proliv, two straits, extend in a general N direction and divide the archipelago into three groups of islands. The central group is subdivided into N and S parts by Proliv Markama, the principal E/W passage. Numerous other channels, some of which are quite narrow, separate the various islands and islets of the archipelago. Most of the straits are deep and have steep-to shores.

The islands of Zemlya Frantsa-Iosifa are mountainous, of volcanic origin, and are covered with glaciers, which give them a dome-like appearance. In places, cliffs composed of dark-colored rock contrast with the background of ice and snow. Lichens, mosses, and Arctic plants are found on some parts of the islands not covered with ice. The islands also are inhabited by bears, walrus, seals, foxes, and, in season, various Arctic birds. No wood of any kind grows on the islands, but driftwood can be found on the shores of some of the channels. The highest elevation of the islands is at a point near the W extremity of Ostrov Luidzhi which rises to 1,500m. Several anchorages are available, but they may be rendered untenable by floating ice during the navigation season. During the navigation season, the islands are visited by Russian icebreaker vessels, which support the polar stations, and occasionally by cruise ships.



Zemlya Frantsa-Iosifa

Ostrov Viktoriya (80°08'N., 36°30'E.) lies about 80 miles WSW of the W extremity of Zemlya Frantsa-Iosifa. This small island is 101m high and is covered with an icecap.

Winds—Weather.—During the winter, the prevailing winds are NE and E. In the summer, SE, W, and NW winds predominate. At Mys Flora, in the S approach to Britanskiy Kanal, the winds in June alternate between W to NW and E to SE. During July, W winds gradually become prevalent, but in August there is a shift to E and SE winds. The winter winds are frequently strong, sometimes attaining hurricane force.

Being surrounded by ice during the greater part of the year, the archipelago has a severe climate. The summer temperature is uniformly low, the mean temperature rising slightly above freezing only in July and August. In the winter, there are marked variations in the temperature. At Bukhta Tikhaya, the mean temperature in March, the coldest month of the year, is about -21.7°C. The relative humidity is high. There are many overcast days, particularly in the summer. Precipitation, which is mostly in the form of snow, is greater in the S part of the archipelago than in the N part. Fog occurs on an average of somewhat over 100 days per year and is most prevalent in June, July, and August.

Ice.—In June, the edge of the heavy Arctic pack ice lies far S of Zemlya Frantsa-Iosifa, but in July, it is usually located N of the archipelago, lying close to or touching the NE islands.

In some years, the sea in the vicinity of the archipelago may be free of ice throughout August and September.

Some of the narrower straits and inlets among the islands are icebound throughout the year, but the larger ones are usually free during some part of the navigation season. Fast ice in the straits is often broken up by the tidal currents.

Numerous icebergs from the glaciers on the islands of the archipelago are usually encountered in the surrounding waters and the straits and bays.

Tides—Currents.—A current flowing S from the Polar Basin into the NE part of the Barents Sea passes E of Zemlya Frantsa-Iosifa and divides into two branches, one setting along the S and W coasts of the archipelago and the other setting WSW and SW.

The tidal range in the straits and bays of the archipelago is slight, but it is affected to a large extent by atmospheric pressure and winds.

The tidal currents among the islands are reported to be strong in places, their velocity being considerably influenced by the wind.

Depths—Limitations.—The depths around the archipelago and within the straits are very irregular. Depths of 44 to 457m lie in Britanskiy Kanal and its S approaches; depths of 81 to 380m lie in Proliv Markama; and depths of 22 to 280m lie in Avstriyskiy Proliv.

A shoal patch, with a depth of 4.8m (position doubtful), is reported to lie about 15 miles ESE of the SE extremity of Ostrov Nortbruk. A shoal, with a depth of 18m, is reported to lie about 11 miles NE of the easternmost extremity of the islands.

Vessels bound for Zemlya Frantsa-Iosifa should proceed as required by the ice conditions encountered. When approaching from the S, it is recommended that vessels keep close to the meridian of 50°E until the ice edge is reached. Then, depending on the ice and weather conditions, vessels should select the direction of approach. In the middle of August, the archipelago can be approached from the Kara Sea and, occasionally, from NW.

Vessels can usually approach the archipelago from July to September, although in 1905, a vessel reached the islands in June.

The latest date of arrival of a vessel was reported (1943) to be September 22. In some years, vessels have been unable to reach the islands during the summer because of unfavorable ice conditions.

Caution.—The shorelines of the islands of Zemlya FrantsaIosifa and the location of known dangers in this area are based on reconnaissance only, and are therefore approximate. The passages lying among the islands and the approaches to these channels have only been slightly examined. Even though the general depths in these channels are great, they may contain unknown dangers.

Local magnetic anomalies have been observed in Britanskiy Kanal, in the S part of the central group of islands, in Avstriyskiy Proliv, and N of Zemlya Vil'cheka in the easternmost group of islands.

The Zemlaya Frantsa-losifa Federal State Nature Sanctuary has been established in an area bound by lines joining the following positions:

a. 79°30'N, 44°00'E.
b. 79°30'N, 66°00'E.
c. 82°30'N, 44°00'E.
d. 82°30'N, 66°00'E.

Any activity not associated with the activities of the reserve, including hunting, fishing, tagging animals, and plant collection outside established tracks and landing places is prohibited, except for authorized vessels.

4.101 Zemlya Aleksandry (80°32'N., 42°15'E.) is the westernmost island of the archipelago. This island is 50 miles long and about 20 miles wide in the S part, from which it curves NE and E. The S part of the island is high and covered with a dome-shaped icecap which is visible, in clear weather, from a distance of over 40 miles. The E part of the island is comparatively low, but rises at the E extremity. The S side of the island is indented by two bights and a cairn, 3m high, stands on the point which separates them. The W and N sides of the island are only slightly indented. The tidal currents along the S coast of the island have been reported (1928) to set NE and SW and attain rates of 0.5 knot. Shoals, with unknown depths, have been reported (1932) to lie off the N coast of the island.

Anchorage.—Anchorage may be obtained in Bukhta Zveroboyev in an area that indents the N side of the island, approximately 0.7 mile away from the coast, in depths of 12 to 14m, mud.

Zemlya Georga (80°30'N., 49°00'E.), the largest island of the archipelago, lies E and SE of Zemlya Aleksandry and is separated from it by a channel, 2.5 to 12 miles wide. The S extremity of this island is 240m high, precipitous, and visible, in clear weather, from a great distance to seaward. Fast ice, apparently aground, has been observed to the SE of the S extremity and indicates the probability of sunken dangers. This island extends 65 miles in a general NE/SW direction and has a maximum width of 40 miles. The coast of the island, for the most part, is indented by numerous bays of various size. The N part of the island is formed by a peninsula which is joined to the main part by an isthmus, about 2 miles wide. Several spits, dangerous to navigation, have been reported to project a considerable distance from the W side of this peninsula. Most of Zemlya Georga is covered with an icecap.

Ostrov Bell lies 12.5 miles E of the S extremity of Zemlya Georga. This island is 285m high, but is comparatively small. Ostrov Meybel lies NE of Ostrov Bell from which it is separated by a narrow strait.

Ostrov Bryusa (Bruce Island) (80°10'N., 49°55'E.) lies NE of Ostrov Meybel from which it is separated by a strait, 2.3 miles wide. This island is covered with an icecap except near part of its SW coast. Ostrov Vindvord, a small and rounded island, and a small ice-free island lie near the SE and E sides, respectively, of Ostrov Bryusa. Vessels can anchor, in a depth of 22m, mud with good holding ground, in the channel lying between Ostrov Vindvord and Ostrov Bryusa.

Ostrov Nortbruk (80°00'N., 50°51'E.) lies with Mys Flora, its SW extremity, located 4.5 miles S of the S end of Ostrov Bryusa. Mys Flora consists of a terraced cape which is surmounted by a gray granite obelisk. The island is roughly triangular in shape and Mys Barentsa, the SE extremity, is located 15 miles ESE of Mys Flora. This point is formed by the seaward end of a small and cliffy peninsula, 10m high, which is joined to the island by a low isthmus. Two cliffy islets lie 1 mile offshore, 2 miles NNE of the point. From Mys Barentsa, the coast of the island trends in a general NNW direction for 12 miles to Mys Lagernyy, the N extremity. The NW side of the island is indented by a bay which has not been examined. The island, for the most part, is free of glaciers. An area, in which the depths do not exceed 50m, extends up to about 10 miles S from the island.

4.102 **Britanskiy Kanal** (British Canal) (80°00'N., 51°50'E.) is entered from the S through three straits. The westernmost strait separates Ostrov Bell, Ostrov Meybel, and Ostrov Bryusa from Zemlya Georga. It is 23 miles long and has a least width of about 6 miles. Depths of 44 to 457m lie in the middle of this strait. It has been reported that the ice breaks up in this strait earlier than in the other two.

The middle strait separates Ostrov Bell, Ostrov Meybel, and Ostrov Bryusa from Ostrov Nortbruk. It is 14 miles long and has a least width of about 4 miles. Depths of 67 to 250m lie in the middle of this strait. The ice usually breaks up in the strait around July 15. This strait seldom remains icebound during the entire navigation season, but it usually contains drift ice.

The easternmost strait lies between Ostrov Nortbruk and Ostrov Luidzhi (80°50'N., 54°10'E.) and is the most convenient for approaching Britanskiy Kanal. This strait has a least width of 15 miles and depths of 100 to 457m. The tidal currents in this strait are sometimes strong.

Ostrov N'yutona (80°00'N., 53°00'E.), a small ice-free island, lies in the approach to the E strait, 9 miles SSW of the SE extremity of **Ostrov Gukera** (Hooker Island) (80°15'N., 53°00'E.). Two other small and ice-free islands lie 8 miles WNW and 5.5 miles NW of Ostrov N'yutona.

A shoal patch, with a depth of 5.8m, and an extensive shoal area lie about 1.5 miles SE and about 4 miles ENE, respectively, of Ostrov N'yutona.

Britanskiy Kanal, along with the easternmost strait, separates the W and central groups of Zemlya Frantsa-Iosifa. It forms the usual route for vessels bound for the N islands of the central group. This strait, which is 40 miles long, has a least width of about 17 miles and depths of 55 to 448m.

The E coast of Zemlya Georga lies on the W side of the strait while the islands of Ostrov Gukera, Ostrov Ketlitsa (80°30'N., 53°20'E.), and Ostrov Luidzhi (80°50'N., 54°10'E.) lie on the E side.

The only known islands lying within the fairway channel of the strait are Ostrov Iton, located near the middle of the S entrance, and Ostrov Skott-Kelti, located 8 miles E of Ostrov Iton.

Currents have been reported to set S along the W side of the strait and N along the E side. Ice usually presents no serious impediments to navigation in the S part of the strait, but compact ice, which is sometimes impassable, may sometimes be encountered in the N part.

It has been reported that ice conditions in the E part of the strait are usually more favorable than those in the W part. The most favorable ice conditions prevail during August.

4.103 The S part of the central group of islands of Zemlya Frantsa-Iosifa consists of more than thirty islands and islets. The largest islands of the group are Ostrov Gallya, Ostrov Mak-Klintoka, and Ostrov Gukera. Most elevations on the islands are ice-covered.

Ostrov Gukera lies with Mys Dandi, its W extremity, located 16 miles ENE of Mys Lagernyy, the N extremity of Ostrov Nortbruk. This island is 15 miles long and most of its E side is covered with ice. The W coast of the island is indented by three bays. The head of the northernmost bay is formed by the front of a glacier, from which large pieces of ice break off. In addition to the ice from this glacier, icebergs and sea ice are carried into this bay by the winds and currents. The winds in this vicinity are very variable in both direction and force. Winds from the S usually send a heavy swell into the bay.

Ostrov Mak-Klintoka (McClintock Island) is the easternmost and largest of several islands lying between Ostrov Gukera and Ostrov Gallya, 34 miles E. A dome-shaped glacier covers the W part of this island and mountains, up to 485m high, rise in its SE part.

Ostrov Gallya (80°11'N., 57°20'E.), lying about 1.2 miles E of Ostrov Mak-Klintoka, is 24 miles long and has a maximum width of 20 miles. The surface of this island is formed by a glacial plateau, 420 to 455m high.

Ostrov Sal'm (80°00'N., 58°40'E.), the largest of several islands and islets lying S and SE of Ostrov Gallya, is covered with a dome-shaped icecap. The W extremity of this island lies 10 miles ESE of the S extremity of Ostrov Gallya.

Ostrov Vil'cheka (Wilczeck Island), an ice-covered island, lies 2.3 miles off the SW side of Ostrov Sal'm. Eskimosskiye Rify, a reef, is about 2 miles long and lies up to 5 miles S of the middle islet of a group of three which are located near the S side of Ostrov Sal'm.

Ostrov Litke, a small island, lies 3 miles S of the SE extremity of Ostrov Sal'm. A shoal, with a depth of 2.4m, and a bank, with a least depth of 17.8m, lie about 1.5 miles SW and 3 miles E, respectively, of this island.

A group of four islands lies in the approach to **Avstriyskiy Proliv** (80°30'N., 59°00'E.), between 7 and 15 miles SSE of the E extremity of Ostrov Gallya.

Ostrov Lamon, a low and rocky islet, lies 6 miles S of the S extremity of Ostrov Vil'cheka. It is the southernmost islet of Zemlya Frantsa-Iosifa. A reef, with its outer part marked by breakers, extends NE from this islet. Shoal patches lie S of the islet; vessels should not approach within 1.5 miles of its S side.

Ostrov Ketlitsa (80°30'N., 53°20'E.), lying 7 miles N of Ostrov Gukera, is 8.9 miles long and 4 miles wide in its S part. This island tapers in a general NNE direction to its N extremity. Its S part is covered with ice, but the N part is ice-free.

Caution.—Numerous uncharted dangers are reported to lie in the areas located S of Ostrov Vil'cheka, Ostrov Sal'm, and Ostrov Litke. Vessels should navigate in these areas with great care.

4.104 Several islands, most of which border the S side of Proliv Markama (80°30'N., 55°45'E.), lie between Ostrov Ketlitsa and the N side of Ostrov Mak-Klintoka.

Ostrov Nansena (80°30'N., 54°05'E.), the greater part of which is covered with an icecap, lies 3 miles E of Ostrov Ketlitsa. Ostrov Bromvich, lying 2 miles E of Ostrov Nansena, is ice-covered except along its N coast, where black cliffs appear in places. Ostrov Braysa lies 1.8 miles SSE of Ostrov Bromvich. Ostrov Aldzher lies 2 miles N of the NW part of Ostrov Mak-Klintoka and a mountain, 414m high, stands on its W part. Another mountain, 375m high, stands near the middle of this island and a conical mountain rises near its NE extremity. These mountains are conspicuous and provide good marks for vessels navigating the adjacent straits. Other islands in this part of the central group lie SSW of Ostrov Bromvich and Ostrov Braysa.

Caution.—According to hydro ic observations (1958), large polyna or thinned out ice forms every year in the month of June and extends SW of the archipelago. The ice attains a thickness of approximately 0.9m in the straits leading towards the polar stations.

4.105 Proliv Markama (80°30'N., 55°45'E.), the strait separating the S and N parts of the central group of Zemlya Frantsa-Iosifa, connects the N part of Britanskiy Kanal with Avstriyskiy Proliv. This strait is 45 miles long and has a least width of 4.5 miles. Vessels, with drafts of up to 9m, have passed through this strait which has known depths of 145 to 690m.

The W entrance of the strait lies between Ostrov Ketlitsa and **Ostrov Luidzhi** (80°50'N., 54°10'E.). The S side of the strait is bordered by Ostrov Ketlitsa, Ostrov Nansena, Ostrov Bromvich, Ostrov Braysa, Ostrov Mak-Klintoka, and Ostrov Gallya. The N side is bordered by Ostrov Luidzhi, Ostrov Champ (80°40'N., 55°40'E.), and **Ostrova Kheysa** (80°36'N., 57°25'E.).

Ostrov N'yukomba (80°29'N., 56°30'E.), a small island, lies in the fairway channel, 7 miles WNW of the NW extremity of Ostrov Gallya. A shallow shoal area may exist to the E of this island as stranded ice has been observed (1936) in this area.

The E entrance lies between the N extremity of Ostrov Gallya and the E extremity of Ostrov Kheysa. Three low islets lie in this entrance, near the coast of Ostrov Gallya.

The N part of the central group of Zemlya Frantsa-Iosifa, comprising of more than twenty islands, extends from Proliv Markama to Ostrov Rudol'fa, the northernmost island of the archipelago. Most of the islands in this part of the central group are ice-covered. In some years, the channels lying among the islands are passable with difficulty or are entirely icebound throughout the navigation season. Some islands and straits in this area have been only partially explored.

4.106 Ostrov Luidzhi (80°50'N., 54°10'E.), the westernmost island on the N side of Proliv Markama, is irregularly shaped and almost entirely covered with ice. The SW extremity of this island lies 11.5 miles N of the N extremity of Ostrov Ketlitsa.

Ostrov Champ (80°40'N., 55°40'E.) lies SE of Ostrov Luidzhi and is separated from it by Proliv Kuka, a channel, which has a least width of 1.5 miles. The N, NE, and SE parts of this island are glacier-covered. Two ice-free hills stand on a peninsula which projects from the W side of the island. A small bay indents the coast close S of this peninsula.

Ostrov Kheysa (Hayes Island), lying 3.5 miles ESE of Ostrov Champ, is covered with ice only on its N part. The E and SE sides of this island are 50m high and precipitous. An ice-covered hill rises on the W side of this island.

From Britanskiy Kanal to Ostrov Rudol'fa, the northernmost island, nine named and two unnamed islands lie adjacent to the usual sea route.

4.107 Ostrov Salisbyuri (81°02'N., 54°43'E.) is the southernmost of the islands lying along the sea route. This island is the largest in the N part of the central group and lies with its SW extremity located 8.5 miles NNE of the NW extremity of Ostrov Luidzhi. The greater part of this island is covered with glaciers and it rises to heights of 250 to 320m in the central and SE parts.

Ostrov Yelizavety lies 1.5 miles W of the NW extremity of Ostrov Salisbyuri. This small island is ice-free and an islet lies 2 miles SW of it.

Ostrov Kharley (81°15'N., 54°11'E.) lies 9.5 miles N of Ostrov Yelizavety. This island is ice-free and a small unnamed island lies 1 mile S of it.

Ostrov Dzheksona (81°15'N., 55°22'E.), an irregular-shaped island, lies 11 miles E of Ostrov Kharley. The W extremity of this island is formed by a conspicuous cliffy cape.

An extensive bay, which has not been examined, indents the NW coast of the island. Three islets lie within this bay and two islets lie near the coast, 0.8 mile NE of its N entrance point. Ostrov Ommaney, a small and ice-free island, lies 7 miles NW of the SW entrance point. A group of four black, cliffy islets, lies within 3.2 miles of the SW entrance point.

4.108 Ostrov Karla-Aleksandra (81°27'N., 57°10'E.) lies NE of Ostrov Dzheksona and is separated from it by Proliv Baka, a strait, which has a least width of 2 miles. This island is 16 miles long and 10 miles wide. It is mostly covered with a glacier and the coasts are only slightly indented. A group of three ice-free islets lies 1.5 miles NW of the W extremity of the island. Another islet lies 1.2 miles SW of a point located 6.5 miles NE of the W extremity. The NW extremity of the island is formed by a high and precipitous projection of dark-colored rock.

Ostrov Gogenloe lies 6 miles ENE of the N extremity of Ostrov Karla-Aleksandra. This island is 5 miles long and 2.5 miles wide. Its SE coast is covered with ice and several islets lie off the NE extremity.

Ostrov Rudol'fa (81°45'N., 58°20'E.), the northernmost island of Zemlya Frantsa-Iosifa, lies with its SW extremity

located 9 miles NNE of the N extremity of Ostrov Karla-Aleksandra. This island is approximately square, with each side being about 9 miles long, and higher in its W part. A glacier covers most of the island and its inland part is bluish-colored. The N and E coasts of the island are covered with ice and the SE extremity is formed by a glacial precipice. The E part of the S coast is ice-covered, but bare cliffs appear in many places along the W part.

A polar station is situated on the W side of the island. Vessels can anchor, in a depth of 35m, mud, good holding ground, about 200m from the shore of the bay lying near the polar station. However, vessels using this anchorage must be ready to depart at any time in order to avoid being beset by ice.

4.109 The sea area lying N of Avstriyskiy Proliv has not been fully examined and is more liable to have unfavorable ice conditions than the areas adjacent to the S and W parts of the archipelago. It is reported that only vessels of comparatively light draft have navigated in this region.

Ostrov Viner-Neyshtadt (80°47'N., 58°20'E.) lies 6.5 miles NNE of Ostrov Kheysa. This island is covered by a glacier except for several ice-free, dark-colored, and rocky cliffs which face the projecting capes.

Ostrov Grili lies 2.5 miles N of Ostrov Viner-Neyshtadt. The greater part of this island is covered with a glacier and its E extremity is formed by a glacial precipice. Ostrov Kena and Ostrov Kun, with a cliffy islet located close S of it, lie E and NNE, respectively, of the N end of Ostrov Grili and are separated from it by a strait, 1 to 2 miles wide. The NE extremity of Ostrov Kena is reported to be 670m high and ice-free. Ostrov Stolichka lies 3 miles N of Ostrov Kun. This small island is ice-free and a rocky islet lies 0.5 mile SW of it.

4.110 Ostrov Bekkera (81°13'N., 59°13'E.) lies 8 miles NE of the NE extremity of Ostrov Kena. This island is narrow and 4.5 miles long. Its NW part is covered with ice, but the SE part is ice-free.

Ostrov Raynera lies 5 miles NNW of Ostrov Bekkera and is separated from the E end of Ostrov Karla-Aleksandra by a strait, 1.5 miles wide. This island has a diameter of 7 miles and is almost circular. It is covered with a solid icecap which rises to a height of 323m. The only noticeable point along the coast of the island projects slightly from its NE part.

A shoal patch, with a depth of 3.9m, lies about 0.5 mile S of the S side of Ostrov Raynera. Another shoal patch, with a least depth of 5.2m, lies about 2.3 miles off the SW coast of the island. An islet lies close offshore, 1 mile SE of the NE part of the island. Several low islets, positions doubtful, lie within 2 miles of the NE extremity of the island and a reef is reported to extend about 3 miles NW from them.

Several other islets lie in the area located between Ostrov Raynera and Ostrov Karla-Aleksandra. This area has been only partially explored and numerous other dangers may exist in this vicinity.

Avstriyskiy Proliv (Austria Sound) (80°30'N., 59°00'E.), a strait, separates the central and E groups of Zemlya Frantsa-Iosifa. Its S entrance lies between Ostrov Gallya and Zemlya Vil'cheka and its N entrance lies between Ostrov Grili and the W extremity of Ostrov Lya-Ronsier. This strait, which is 40 miles long, has a least width of 5 miles lying at its S entrance. The tidal currents in the strait are reported to be fairly strong and the few scattered soundings indicate depths of 22 to 280m.

The W side of the strait is bordered by Ostrov Gallya, Ostrov Kheysa, Ostrov Viner-Neyshtadt, and Ostrov Grili. The E side is bordered by **Zemlya Vil'cheka** (80°40'N., 60°00'E.) and **Ostrov Lya-Ronsier** (81°00'N., 60°15'E.).

A group, consisting of two islands and two islets, lies near the middle of the strait, E of Ostrov Kheysa.

4.111 The E group of islands of Zemlya Frantsa-Iosifa comprises of Zemlya Vil'cheka, Ostrov Greem-Bell, Ostrov Lya-Ronsier, Ostrov Yeva-Liv, and several smaller islands. Because of the ice conditions, this area has been explored less than most other parts of the archipelago. The channels lying between the islands of the group and the greater part of the surrounding sea areas have not been examined.

Zemlya Vil'cheka (80°40'N., 60°00'E.), 39 miles long and 21 miles wide in its S part, has a surface consisting of an elevated plateau covered with an icecap. The coasts of this island are formed by glacial precipices except along most of the projecting capes and points, which are faced with exposed and dark-colored rock. Three conspicuous conical mountains rise from the plateau in the SW part of the island and five mountains stand in the NE part. Between the SW extremity and the NW extremity of the island, the coast is only slightly indented. A bight, entered 7 miles NNW of the SW extremity, is sheltered only from E winds and has not been examined. Ice-free islets lie 2 miles N and 2 miles NE of the NW extremity of the island. From this extremity, the N coast of the island trends in a general E direction for 15 miles and then NNE for 6 miles to the N extremity. The E extremity is located 13.5 miles SSE of the N extremity and is the only cape on the island which is completely ice-covered with no exposed rocks. An extensive bay indents the coast to the S of this cape and several small, ice-free islands lie off the S coast of the island.

Ostrov Lya-Ronsier lies N of Zemlya Vil'cheka and is separated from it by a strait with a least width of 3.5miles. This island is oval-shaped, 15 miles long, 11 miles wide, and completely covered by ice.

Ostrov Greem-Bell lies NE of Zemlya Vil'cheka and is separated from it by a strait with a least width of 5 miles. This island is 41 miles long, 26 miles wide, and has a surface formed by a plateau which is covered by an ice cap. The depths lying within about 5 miles of the island are extremely irregular. It is reported that a scientific settlement is situated on this island.

4.112 Ostrov Gofmana (81°16'N., 60°10'E.) lies 11 miles NNW of Ostrov Lya Ronsier. This island is 6 miles long, 3.5 miles wide, and is covered with an icecap.

Ostrov Yeva-Liv (81°40'N., 63°10'E.), the largest of a group of three islands, lies 15 miles NNW of the N extremity of Ostrov Greem-Bell and was formerly charted as two

separate islands. The two smaller islands of the group lie 4 miles SSW and 8 miles SSW of the NW extremity of this island. All three of these islands are covered by ice.

Additional chart coverage may be found in NGA/DLIS Catalog of Maps, Charts, and Related Products (Unlimited Distribution).

Sector 5 — CHART INFORMATION

Sector 5
The Kara Sea—South Shore

Plan.—This sector describes the mainland shores of the Kara Sea including several bays, rivers, and offshore islands. The descriptive sequence is E from the NE side of Ostrov Vaygach to Yeniseyskiy Zaliv.

General Remarks

5.1 Poluostrov Yamal separates the SW part of the Kara Sea from the E side of Obskaya Guba. The surface of this large peninsula is formed by a rolling plain of tundra which gradually decreases in height to the N. A range of hills, up to 90m high, rises in the center of this peninsula and its N part is partly wooded. The coasts are generally low, uniform, and consist of a sandy clay formation.

Several dangers lie off the W coast of Poluostrov Yamal and numerous dangers lie in the W approach to Proliv Malygina and off the W and N coasts of Ostrov Belyy.

The coasts described in this sector provide very few sheltered anchorages. Most of the indentations are shallow or remain unexamined. Numerous rivers intersect these coasts, but many are inaccessible except to small craft.

Navigation in the areas described in this sector is dependent upon ice conditions.

Winds—Weather.—The Kara Sea is frozen throughout most of the year and closed to shipping. Navigation is possible only during the warm months, August to October, when ice is at a minimum. The water temperature in the Kara Sea, like the Barents Sea, increases rapidly during July, especially in the shallow S areas where ice first disappears. In August and September, ice recedes to its most N limit and the maximum yearly sea surface temperatures prevail. Waters from Obskaya Guba, Yeniseyskiy Zaliv, and Reka Pechora have a warming effect on much of the Kara Sea area. The surface water cools rapidly during the first half of October and the ice limit starts its S progression. By the latter half of the month, ice again presents a hazard to navigation throughout most of the Kara Sea. The sea surface salinity of the Kara Sea is reduced considerably by fresh water discharges and ice melt during the warm season.

Fog is prevalent over the Kara Sea, the Barents Sea, and the entrance to the White Sea (Beloye More) in late spring and early summer, but reduced visibility is actually more often reported at most of the major ports during the winter. Radiation fog occurs at ports surrounded by higher terrain during clear, calm nights. However, the reduced visibility mostly results from the interaction of the contrasting air masses and the frequent development or passage of a low-pressure area. The individual weather element causing the most frequent reduction in visibility during the cold season is snow.

Tides—Currents.—Water enters the SW part of the Kara Sea from the SE part of the Barents Sea through Proliv Karskiye Vorota and Proliv Yugorskiy Shar. It also enters the Kara Sea from the N branch of the North Cape Current, which rounds the N extremity of Novaya Zemlya, and from the mainland rivers, chiefly Reka Ob' and Reka Yenisey.

Part of the current from Reka Ob' rounds Ostrov Belyy, at a distance of 20 to 30 miles, and then flows NW to the E coast of Novaya Zemlya. This current reaches the coast close SW of **Zaliv Blagopolluchiya** (75°37'N., 63°40'E.) and then divides into two branches; one branch, known as the Novaya Zemlya Current, runs SW and the other runs NE.

The Novaya Zemlya Current continues past the entrance of Proliv Karskiye Vorota where the Litke Current branches off to enter the Barents Sea. A large quantity of water flows through this same strait into the Kara Sea and joins the Novaya Zemlya Current. A smaller amount flows through Proliv Yugorskiy Shar. After passing Proliv Karskiye Vorota, the Novaya Zemlya Current then turns gradually E toward the coast of Poluostrov Yamal. On reaching this coast, the current turns N and is known as the Yamal Current. This current, which receives a small amount of water from Proliv Malygina, then merges with the current flowing from Reka Ob'. It sets round Ostrov Belyy toward Novaya Zemlya and completes a closed circulation. The circulation is very weak and is influenced by the wind.

Abnormal conditions may change the current circulation in the SW part of the Kara Sea. The winds were reported in 1932 to cause a pronounced N set over most of the area. The flow of water from Reka Ob' was diverted from Novaya Zemlya by the augmented Yamal Current and the velocity of the Novaya Zemlya Current was diminished. At the same time, the NE current in Proliv Karskiye Vorota filled the whole strait and turned N, instead of S, after entering the Kara Sea.

The tidal range in the Kara Sea is usually not more than 0.5 to 0.8m. However, the water level is affected by winds which may increase the range by as much as 0.9m in the bays and inlets.

Regulations.—For information on the Northern Sea Route, see paragraph 1.2.

Caution.—Due to the lack of reliable information, radio navigational aids on the Russian Arctic Coast and adjacent islands, from the E side of Novaya Zemlya to the Bering Strait, are being omitted from charts and publications. Therefore, the information concerning radiobeacons included in the following text is provided strictly as a general guide based on past information.

The Kara Sea—South Shore

5.2 Mys Bolvanskiy Nos (70°28'N., 59°03'E.) forms the NE extremity of Ostrov Vaygach and is low. This point is located at the seaward end of a peninsula which is joined to the island by a narrow isthmus. A rocky islet lies about 0.8 mile E of the peninsula. Vessels are advised to give this point a wide berth. A light is shown from a pyramidal structure,

20m high, standing 0.4 mile W of the point. A radiobeacon is reported to be situated at the light.

Mys Gomsa Salya (Mys Gamsa Sale) (70°05'N., 60°02'E.), marked by a light, is located 29 miles SE of Mys Bolvanskiy Nos. It is low, rocky, and very conspicuous when viewed from the N. Islets, surrounded by rocks, lie 1.2 miles NW and 2.5 miles SE of this point. It is reported that a beacon, 10m high, stands on the point.

In the vicinity of the mouth of Reka Falshivaya, 2 miles W of the point, the coast is very low. Between the point and **Mys Belyy** (69°54'N., 60°28'E.), 15 miles SE, the NE coast of Ostrov Vaygach is 25m high and fringed by numerous rocks. From **Mys Tonkiy** (69°51'N., 61°06'E.), the coast trends generally ESE for 76 miles to Mys Vylkin Nos and then SE for 13.5 miles to Mys Yuryubey Salya, the NW entrance point of Karskaya Guba.

Ostrov Mesinyy, an island, lies E of Mys Tonkiy and is 2.5 miles long. It is separated from the mainland by a strait which is known as Proliv Morozova. The coast in the vicinity of the SE entrance of this strait is bold and rugged. Between this entrance and Mys Yapto Sale, located 19 miles ESE of Mys Tonkiy, the coast then rises gradually to hills, up to 50m high. Between Mys Yapto Sale and the mouth of Reka Olovyannaya, 16 miles E, the coast consists of low, clay cliffs which are crumbling in places. From the mouth of this river to Shpindler Light, 13 miles ESE, the coast consists mainly of low, marshy ground with several freshwater lakes and ponds. About 3.5 miles W of Shpindler Light, the coast then rises again to a height of 30m.

Shpindler Light (69°40'N., 63°18'E.) is shown from a framework tower, 14m high, standing on the coast. A small hamlet is situated in the vicinity of this light. Several isolated log houses stand along the coast between the light and Mys Yuryubey Salya.

A mountain range, with peaks up to 550m high, stands 10 to 20 miles inland. A small hill, with two peaks, rises 4 miles SE of Mys Yapto Sale and is conspicuous from the N. Several surveying beacons, consisting of black or white framework timber pyramids, are interspersed along the coast between Ostrov Mestnyy and Shpindler Light. They are reported to be visible from 8 to 10 miles offshore in clear weather. From Shpindler Light to Mys Yuryubey Sale, the coast appears as hummocky tundra.

5.3 Mys Vylkin Nos (69°28'N., 64°30'E.) projects slightly from the line of the coast and appears as a dark-colored hill when seen from the N or E. A light is shown from a framework tower, 18m high, standing on this point.

A shallow sand bank borders the coast between Mys Vylkin Nos and Mys Yuryubey Salya, 15 miles SE. This bank extends up to about 1 mile seaward and surf usually occurs on it.

Ostrov Mestnyy (69°51'N., 61°14'E.) lies with its NW extremity located 1.5 miles E of Mys Tonkiy. This island is low, rocky, and not easily distinguished from seaward. A cairn stands on its SE extremity.

An isolated depth of 11m lies about 5.5 miles ENE of the NW extremity of Ostrov Mestnyy. Between Mys Vylkin Nos and Mys Yuryubey Salya, depths of 6.4 to 7.3m are reported to lie up to about 1 mile offshore. Depths of 9 to 11m lie 2.5 miles NE of the entrance of Karskaya Guba.

Proliv Morozova (69°50'N., 61°14'E.), the strait separating Ostrov Mestnyy from the mainland, has a fairway channel with a least width of about 0.5 mile. This fairway has a least depth of 10m and is indicated by four lighted ranges. A ledge, which partly dries, extends about 1 mile N from Mys Tonkiy, but its exact limit is unknown. Another similar ledge extends about 0.5 mile NW from the NW end of Ostrov Mestnyy. A stream, known as Reka Kamenka, flows into this strait, 2 miles S of Mys Tonkiy. Several drying rocks lie close offshore, 0.2 mile E of the mouth of this stream. A small village is situated on the S side of the E part of the strait. A boat channel leads between two groups of islets to a pier fronting this village. Local knowledge is required.

Numerous above-water rocks lie near the SW side of Ostrov Mestnyy. The SE entrance to the strait is steep-to on its N side, but a group of islets lies near the shore on its S side. Anchorage can be taken, in a depth of 10m, mud and sand, within Proliv Morozova.

5.4 Amderma (69°46'N., 61°40'E.), a small fluorspar-shipping port, is situated at the entrance of a lagoon, 10 miles ESE of the SE extremity of Ostrov Mestnyy. Foothills of the mountain range, which rises inland, approach the coast close W of this port. Two large rocks, awash, lie about 0.8 mile NE of the entrance to the lagoon. A sandy spit separates the lagoon, which is accessible only by small craft, from the sea. The depths lying seaward of this spit gradually decease from 11m, about 0.8 mile offshore, to 5.5m, about 0.2 mile offshore.

A village and a radio station stand on the E side of the entrance to the lagoon. It is reported that a radiobeacon is situated at Amderma. Local knowledge is required.

Depths—Limitations.—Quays are for use by barges for the village population, and pontoons are located in the vicinity of the river mouth.

Contact Information.—See the table titled **Amderma—Contact Information**.

Amderma—Contact Information	
Port	
Call sign	Amderma Radio 5
VHF	VHF channels 6, 16, 69, 72, and 77
Telephone	7-818-534-2825
	7-921-474-4502
	7-921-513-2333
E-mail	ampm@mail.ru
	ampn@atnet.ru

Anchorage.—During winds from SE through S to SW, anchorage can be taken off Amderma in convenient depths and over a bottom of fine sand. Upon any indication of the wind shifting onshore, vessels should leave this anchorage

and proceed to the anchorage in Proliv Morozova. Local knowledge is required.

Caution.—Obstructions (pontoons) are located 0.8 and 1.1 miles NW of Amderma Lighted Beacon, in depths of 5.2m and 8m, respectively.

5.5 Guba Karskaya (69°16'N., 65°00'E.) indents the coast between Mys Yuryubey-Salya and Mys Tolstyy, 1.2 miles SSE, and extends SW for 12 miles. This bay has a width of 1 mile for a distance of 2 miles within the entrance. It then broadens to a maximum width of 5 miles. Reka Kara, the largest of several rivers flowing into this bay, discharges into the head through a delta.

Mys Yuryubey-Salya is formed by a narrow sandspit. Mys Tolstik (Mys Tolstyy), 14m high, is a conspicuous headland with steep and dark-colored sides. Two conspicuous dome-shaped hills stand close E of this headland.

The entrance to the bay is encumbered by drying sandbanks, which extend from each side, and the entrance channel is constantly shifting. A bar, which breaks heavily in bad weather, extends about 2.5 miles seaward from the entrance. Sunken rocks have been reported to lie on this bar and local knowledge is required. It was reported (1940) that vessels with drafts of up to 2m could cross the bar and enter the estuary. A settlement, consisting of a trading post and a few log houses, stands on the E side of the entrance to the bay. A polar station and a radio station are situated at this settlement.

5.6 Baydaratskaya Guba (69°15'N., 65°10'E.) is entered between Mys Tolstik and Mys Marre-Salya, a bluff headland, located 43 miles ENE. It extends for 97 miles in a general SE direction and narrows gradually toward the head. Numerous rivers flow into this gulf.

Parts of the shore and the greater part of the gulf have not been fully examined. The bottom is mainly sand with mud in some places. The central part of the entrance has depths of 18 to 27m. These depths gradually decrease toward the head, with the depths in the inner part being less than 5m.

From Mys Tolstik to Ostrov Levdiyev, 53 miles ESE, the SW coast of the gulf is high, level, cliffy in places, and covered with tundra. This stretch of coast is only slightly indented. From Mys Tolstik, a narrow strip of low, swampy ground fringes the coast for 13 miles and then a spit, formed of sand and tundra, extends about 8 miles ESE. A passage, about 1 mile wide, separates the extremity of this spit from the end of a low and narrow island which extends SE for 18 miles.

Caution.—Anchoring, fishing, and any other type of underwater operations are prohibited across an area of submarine gas pipelines that cross Guba Baydaratskaya 3 miles ESE of Reka Oyuyakha.

5.7 Ostrov Levdiyev (68°47'N., 67°19'E.), a low and level island, lies with its NW end located close E of a tongue of sand. This tongue projects from a tundra-covered point which extends E from the mainland. A small islet, formed of sand, obstructs the narrow passage lying between this tongue and the island. A hard, sandy strip borders the SW side and SE end of Ostrov Levdiyev, but the remainder of the island is covered with tundra which may break through to boggy ground under a man's weight. A drying sandspit projects S for about 1.5 miles from the SE end of the island. Depths of less than 3m lie between the SW side of the island and the mainland.

Between Ostrov Levdiyev and the entrance to the inner part of Baydaratskaya Guba, the coast is low and mainly bluff. It is intersected by a number of ravines and broad, low river valleys.

A conspicuous bluff is located 6 miles S of the SE end of the island. Mys Tungomy-Sale, located 12 miles SE of this bluff, is the SE extremity of a long, narrow tongue of sand. This tongue shelters a bay which is entered between Mys Tungomy-Sale and Mys Nunderma, 1 mile S.

Mys Marre-Salya (69°37'N., 66°49'E.) is the SW extremity of a peninsula which is steep on its S side. A light is shown from a framework tower, 8m high, standing on this point. It is reported that a radiobeacon is situated at the light.

A drying sand spit, known as Marre-Sal'skaya Koshka, extends SSE for about 10 miles from the point and its N part is partly covered with tundra. Zaliv Mutnyy, a bay, lies E of the peninsula and its E side ends in a comparatively high steep peninsula. Ostrov Litke, the larger and northernmost of two islands lying in the middle of the bay, is comparatively high and its SE coast is steep. An islet lies 9 miles SE of the N extremity of the island. This islet lies near the SW edge of a shoal spit which extends about 6 miles SW from the N shore of the bay.

A large drying sand bank, which extends 6.5 miles SE, lies with its N extremity located 3.5 miles SW of the W extremity of Ostrov Litke.

Anchorage can be taken, in depths of 6 to 7m, silt, about 3 to 4 miles SE of Ostrov Litke. This anchorage is sheltered from winds from NW through N to E and, to some extent, from W winds.

5.8 Between the SE entrance point of Zaliv Mutnyy and a steep point, 7 miles SSE, the NE coast of Baydaratskaya Guba recedes and forms a shallow inlet which extends 10 miles N. From this inlet, the coast then trends in a general SSE direction to Mys Yuryubey-Salya and is only slightly indented.

Reka Yarra-Yaga flows into the sea through a conspicuous valley, 1 mile wide, lying 10.5 miles SSE of the SE entrance point of Zaliv Mutnyy. Between the steep sides of this valley, a high and steep bluff rises 2 miles inland and can be seen from seaward.

Between the mouth of Reka Yarra-Yaga and the entrance of Reka Nyarme-Yaga, 13 miles SSE, the coast is intersected by numerous ravines and becomes low and sandy in a few places. Several conspicuous sandy hills stand about midway between the mouth of Reka Nyarme-Yaga and Mys Yuryubey-Sal.ya.

Mys Yuryubey-Salya (68°54'N., 68°44'E.) is a high and precipitous cape which is bordered by low swampy ground. This cape is fringed by sand banks and a spit extends up to 1 mile S from it. Other sand banks, which dry, lie centered 1.2 miles W of the cape.

Zaliv Yuryubey (68°53'N., 68°46'E.) which is formed by the estuary of Reka Yuryubey and several other rivers, indents the coast between Mys Yuryubey-Salya and a point, 10 miles SE.

This bay extends NE and is filled with numerous sunken and drying alluvial deposits of sand and silt. A low bluff island, which is conspicuous from seaward, lies 4.5 miles ESE of Mys Yuryubey-Salya and 2 miles off the N side of the estuary. Winding channels, with depths of 3.7 to 7.3m, lead between the alluvial deposits. The mouth of Reka Yuryubey lies in the SE part of the bay, 12 miles inside the entrance.

Between Zaliv Yuryubey and the entrance to the inner part of Baydaratskaya Guba, the coast trends SSW. The SE entrance point of the former bay is rather high and steep, but between it and the mouth of Reka Ganorakha, 18 miles SSW, the coast is mainly low and gently sloping. The N side of the entrance to the latter river is low and sandy and the S side is steep. A small, conspicuous hill stands 1 mile NE of this river entrance. Between Mys Rok, located 1.6 miles SW of the river entrance, and the E entrance point of the inner part of Baydaratskya Guba, 4 miles S, the coast is high, steep, and bordered by a strip of low land.

Poluostrov Yamal—West Coast

5.9 From Mys Marre-Salya, the W coast of Poluostrov Yamal trends in a general N direction for 88 miles to Mys Kharasovay. Between Mys Marre-Salya and Mys Beluzhiy Nos, 27 miles N, it consists of sandy cliffs fringed by beaches. Reka Marra-Yaga enters the sea, 7 miles N of the former point.

Between Mys Beluzhiy Nos and the mouth of Reka Murnaya, 22 miles NNE, the coast is composed of cliffs, 15 to 24m high. A bay indents the S part of this stretch of coast.

From the mouth of Reka Mutnaya, the coast, which consists of swampy land backed by cliffs, trends N for 24 miles to the head of a bight known as Guba Kruzenshterna. It then becomes low and trends WSW for 8 miles to Mys Uengan. Between the latter point and Mys Kharasovay, 20 miles N, the coast becomes much higher.

Sharapovy Koshki is a chain of narrow and sandy islands which fronts the coast between the mouth of Reka Mutnaya and a point located 10 miles S of Mys Kharasovay. The islands are all low, but, occasionally, sandhills stand on them.

From Mys Kharasovay, the coast trends in a general NNE direction for 123 miles to Mys Skuratova, the NW extremity of Poluostrov Yamal. Between Mys Kharasovay and the mouth of Reka Tiute-Yaga, 24 miles NE, it is 12 to 22m high and steep. Between the mouth of Reka Tiute-Yaga and the mouth of Reka Seday, 40 miles NNE, the coast first becomes lower and then rises in cliffs, about 18m high. Between the mouth of Reka Seday and the mouth of Reka Eptarma, 6 miles N, the coast is low. From the latter river to Mys Paynpte, 35 miles N, the coast consists of bare cliffs. A river mouth, lying 13 miles N of the mouth of Reka Eptarma, is prominent and appears as a wide break in the coastal cliffs. Between Mys Paynpte and Mys Skuratova, 20 miles NNE, the coast is comparatively high for 10 miles and then becomes lower. Mys Skuratova is reported to be difficult to distinguish from seaward.

Caution.—Most of the W coast of Poluostrov Yamal is composed of sand and clay. The steep parts of this coast are bordered by wide beaches which appear to consist of hard sand, but may be actually quicksand and dangerous to walk on. Along those parts of the coast where the shore is shelving, the sand is generally firm and safe.

A bank, with a depth of 4.1m on its outer part, extends about 1.5 miles W from the entrance of Reka Narra-Yaga.

The depths lying W of Sharapovy Koshki are very irregular and vary between 5 and 26m up to about 15 miles seaward of this chain of islands. Vessels navigating in this vicinity should keep in depths of over 12m and at least 15 miles from the shore.

A bank, with depths of less than 9m, extends up to about 10 miles offshore between Mys Kharasovay and the mouth of Reka Tiute-Yaga. Breakers have been reported to appear on the inner part of this bank.

Several below and above-water rocks lie up to 4 miles offshore, about 12 miles N of Mys Kharasovay.

Shoals, with depths of 4.2 and 5.2m, lie about 3 miles SW and 4 miles WNW, respectively, of Mys Paynpte.

A bank, with depths of 3.6 to 4.2m, extends up to 6.5 miles offshore between a point located 12 miles NNE of Mys Paynpte and Mys Skuratov. This bank terminates about 6.5 miles NW of the latter point and is dangerous for vessels approaching Proliv Nalygina as the low coast in this vicinity is not always clearly visible.

A sandy bank, with depths of 2.4 to 5.5m, extends about 5 miles SW and W from Mys Ragozina.

Shoals, with depths of 3.6m and less, lie up to about 11 miles W, 10 miles NW, and 20 miles N of Mys Beluzhiy Nos.

A bank, with depths of 12 to 14m, lies about 29 miles W of Mys Ostryy, but its E limit has not been accurately determined. Another bank, with a least depth of 16m, lies about 10 miles S of the former bank.

A shoal patch, with a depth of 7m, lies about 20 miles W of Mys Ostryy. Several other shoals have been reported to lie between this patch and the mainland and vessels navigating in this vicinity should exercise great care.

A shoal, with a depth of 8.8m, lies about 15 miles NW of the mouth of Reka Eptarma.

Shoals, with depths of 6.4 and 7m, lie about 11 miles WSW and 13 miles NW, respectively, of Mys Paynpte.

A shoal, with a depth of 7m, lies about 25 miles WNW of Mys Skuratova, but its position is doubtful.

A dangerous wreck is reported to lie about 5.5 miles WNW of Mys Skuratova.

A shoal, with a depth of 11m, lies about 9 miles W of Mys Ragozina.

5.10 **Reka Marra-Yaga** (69°44'N., 66°50'E.), which flows into the sea 7 miles N of Mys Marre-Salya, approaches its mouth through a wide valley. The river entrance is shallow and accessible only to small craft.

Mys Beluzhiy Nos (70°03'N., 67°02'E.) is located 20.5 miles NNE of the mouth of Reka Marra-Yaga. This point,

which is comparatively high, is the N extremity of a peninsula. A low island lies 1.5 miles NE of the point and a pillar rock has been reported to lie between them, but its existence is doubtful. The peninsula forms the W side of a bay which has not been examined.

Sharapovy Koshki (70°30'N., 66°34'E.) is a chain of low, narrow, and sandy islands. It extends 10 miles NW and then 26 miles N from a position located 21 miles N of Mys Beluzhiy Nos. The S and central parts of this chain lie 4.5 to 12 miles offshore, but the N part lies closer to the coast. Sharapov Shar, the area lying between the chain and the mainland, is encumbered with sandy banks and has general depths of only 0.6 to 0.9m.

5.11 Sharapovy Lighted Beacon (71°05'N., 66°43'E.) stands on Mys Kharasovay and is reported to consist of a metal pipe, 8m high. A racon is reported to be situated at this beacon.

The coast between Mys Kharasovay and Mys Skuratova is intersected by a number of rivers, the mouths of which are obstructed by bars or banks.

Yun Yakkha Beacon (71°35'N., 68°08'E.), which is lighted, stands on the coast, 42 miles NE of Sharapovy Beacon, and is reported to consist of a square metal prism, 18m high.

Mys Skuratova (72°56'N., 69°22'E.) is low and bordered by a sandy beach. From seaward, this point appears as a long, narrow sandspit. During NW winds, the water level is raised and the coast in the vicinity of the point becomes inundated. A conspicuous hillock, surmounted by a pole beacon, rises 3.5 miles E of the point. During onshore winds, this hillock has the appearance of an islet at HW.

Caution.—It is reported that gas and oil installations, which are situated in the vicinity of Mys Kharasovay, are supplied by vessels which berth alongside selected areas of fast ice.

Ostrov Belyy

5.12 The W side of Ostrov Belyy trends N for 23 miles from Mys Malygina, the SW extremity of the island, to Mys Ragozina. This stretch of coast consists of tundra, 6 to 8m high, and is intersected by several streams which flow to the sea through comparatively broad valleys. The coastal cliffs adjacent to the mouths of these streams are more sharply defined than those on other parts of the coast.

Mys Ragozina (73°23'N., 70°00'E.) is the NW extremity of a small island which is 7m high and separated from Ostrov Belyy by a creek. The SW and NE entrances to this creek lie 3 miles S and 2 miles E, respectively, of the point. The creek is accessible only by small craft and a low, sandy cliff stands on the S side of its SW entrance. The buildings of a polar station are reported to stand 0.5 mile E of the SW entrance. Belyy Beacon, 43m high and prominent, stands 1 mile NE of the SW entrance and is the former light tower.

The N coast of Ostrov Belyy trends 15 miles ENE from Mys Ragozina to Mys Belyy, the N extremity of the island. This stretch is low, sandy, and backed by detached hillocks, 3 to 5m high, which rise 2 miles inland.

Belyy Severnyy Light (Mys Belyy Light) (73°28'N., 70°56'E.) is shown from a framework tower, 21m high, standing 2.5 miles ESE of Mys Belyy. This tower is situated on low ground and backed by higher ground. A racon is located at the light.

The NE shore of Ostrov Belyy extends 24 miles between Mys Belyy and Mys Shuberta, the E extremity of the island. Mys Ivanova is located 8.5 miles SE of Mys Belyy. Several islets, separated by shallow channels, form the delta of Reka Pag and extend SSE and S for about 9 miles from this point. Between the delta and Mys Shuberta, the coast is backed by low hills, some of which rise gently and others steeply from the sea. Numerous rivulets lie along this side of the island.

Temporary anchorage can be taken in depths of 5 to 8m about 4 miles W of Belyy Beacon. When approaching this anchorage, vessels should stay clear of the bank which extends up to 5 miles W and SW from Mys Ragozina. This bank affords some shelter from N or NE winds.

Caution.—Strong tidal currents, which generally set NW and SE, have been observed off the shores of Ostrov Belyy. Anchorage can be taken off the island, but the roadsteads are insecure because of these currents.

The approach to Ostrov Belyy requires great care, especially in thick weather. The low shores of the island are not usually seen from distances greater than 6 miles. When approaching the island from the W, the different nature of the bottom, sand or mud, may often indicate whether vessels are N of the parallel of the N end of the island, or further S, nearer to Proliv Malygina.

The N coast of Ostrov Belyy is fronted by shoals, with depths of less than 11m, which lie up to 17 miles offshore.

A local magnetic anomaly is reported to exist 40 miles NE of Ostrov Belyy.

Proliv Malygina (73°00'N., 70°30'E.) is the strait which lies between the S side of Ostrov Belyy and the N shore of Poluostrov Yamal. Generally, vessels, with drafts of not more than 3m, can transit this strait. However, the depths are subject to continual change because of the strong currents, the movement of heavy ice in winter, and the spring breakup of ice.

Obskaya Guba

5.13 Obskaya Guba indents the Arctic coast of Russia and extends in a S direction for 400 miles. The shores of this gulf, which are rather monotonous, lie approximately parallel to each other. They are 35 miles apart at the entrance, but approach as close as 19 miles to each other about 60 miles within the entrance. Between this location and the head, the shores remain comparatively close to each other and the inner part of the gulf resembles a wide river.

The entire W shore, which is 12 to 15m high, is mostly formed by low, swampy tundra descending to the water level in low cliffs. In some places, the shore rises slightly to form a chain of sloping hills. The hills, which are volcano-like elevations, usually stand parallel to the shoreline, at varying distances. Sand spits, which change gradually into shoals, extend seaward from some of the capes along the W shore.

The E shore of the gulf, which is 37 to 43m high, is less indented than the W shore. No extensive coves or bays, except Tazovskaya Guba, indent this shore.

Reka Ob, one of the great rivers of the world, flows into the head of this gulf. However, navigation on this river is restricted to small craft, tugs, and barges due to the comparatively shallow depths. Novyy Port is a place where cargo is trans-shipped from deep-draft vessels to river craft.

Winds—Weather.—Winds from the S prevail in Obskaya Guba except during the open navigation season, July through September, when N winds predominate. These predominant winds are particularly important in the S part of the gulf during the open navigation season as they provide higher water levels at Novyy Port. Gales and storms from the N predominate in the entire gulf during the open navigation season.

In the gulf, the period from June through September is the rainiest. However, the amount of precipitation is not great, being 127mm to 228mm annually in the S part of the gulf, and slightly less in the N part.

During the open navigation season, visibility is at times greatly reduced in the gulf by fogs and clouds. Fogs are especially frequent in July when the gulf is finally free of ice and no more than one or two clear days have been observed during this month.

Ice.—Obskaya Guba freezes over in a manner for which complete data is not available. According to the best information, the first ice is formed during the early days of October along the shores. By the middle of this month, the freezing process extends to the entire gulf. The ice is carried N by the current and gradually forms large fields. Complete winter ice cover is established during November and December. The ice attains a thickness of about 2m in April or May.

The breakup of the ice starts in the mouth of Reka Ob during late May or early June and starts in the gulf during June. Winds exert a pronounced influence on the breakup of the ice in the gulf.

Tides—Currents.—The effect of the river current of Reka Ob is continuous and the predominant current in Obskaya Guba sets N, as might be expected. In addition to this river current, tidal currents, variable in velocity and direction, are also in evidence.

A steady current, which prevails in the middle and S parts of the gulf, has an almost constant velocity of about 0.2 knot. In the S part of the gulf, the effect of the flood current is noticeable only by the temporary cessation of the river current, or by its weakening to 0.1 knot. With a falling tide, the rate of the combined river and the tidal current may reach nearly 0.5 knot.

In the middle of the gulf, the predominant current is somewhat weaker and the tidal currents are correspondingly more in evidence. Variations in velocity of up to 0.5 knot have been reported.

In the N part of the gulf, the flood current is sufficiently strong to overpower the river current and gives rise to a S current. This current is often of considerable force, depending on the bottom and the shore configurations. The average duration of the ebb current, which is directed N, is 8 to 9 hours. It usually has a velocity of up to about 0.5 knot. The average duration of the flood current, which is directed S, is 3 to 4 hours. It usually has a velocity of about 0.2 knot.

In the entrance to Tazovskaya Guba and the adjoining middle part of the gulf, extensive current variations have been reported, but not thoroughly studied. The result of these current anomalies is a marked increase in high seas which, at times, can be inconvenient for vessels, particularly small craft.

Depths—Limitations.—The entire bottom of Obskaya Guba is smooth and without sharp variations, in this respect resembling a river bed. In the entrance, the depths decrease gradually from 18 to 22m. The N part of the gulf, between the entrance and **Mys Nar-Salem-Payye** (71°48'N., 73°30'E.), has more or less uniform depths of 11 to 14m. Beginning at the narrows off Mys Nar-Salem-Payye, the depths increase in the fairway through the middle of the gulf. The depths lying off the E shore, even in the middle part of the gulf, are slightly greater with soundings of 24 to 26m having been reported in some places. Off the W shore, the 10m curve lies 5 to 10 miles seaward and to the S of 68°N, only depths of 8m or less have been found.

The bottom in the gulf mostly consists of sticky blue or green mud, but sand is reported to appear in the bottom samples as the shores or shoals are approached. The holding ground is uniformly good.

The water level in the gulf undergoes variations because of the periods of high and low river.

Winds from the N raise the water level and winds from the S lower it. The range in level may amount, at times, to as much as 1.5m or more.

Temporary anchorage can be taken almost anywhere in the gulf, due regard being given to the direction of the wind.

Caution.—Atmospheric refraction is frequent and of pronounced intensity in the Obskaya Guba area. It is particularly intense when there is much moisture in the air.

Local knowledge is required by vessels navigating in Obsakaya Guba.

Magnetic anomalies exist in the vicinity of Obskaya Guba.

Obskaya Guba lies within an area characterized by immense forests and lumbering is a major industrial activity. Log rafts, or separate logs in large numbers, are floated down Reka Ob and are processed or transshipped in the gulf area. These rafts, or stray logs, represent dangers to navigation under certain conditions.

There is a lack of reliable information concerning navigational aids within Obskaya Guba. The navigational lights in the N and central parts of the gulf are not exhibited every navigation season. The buoys in the gulf are removed at the closing of the navigation season and replaced when the gulf reopens in the late spring or early summer. However, the buoys may not be replaced exactly in the same charted positions. Generally, all the spar buoys in the S part of the gulf are replaced, but those farther N are not set out every navigation season. The beacons in the gulf are erected by surveying vessels, but no regular inspection of them is carried out and their existence cannot be relied upon.

5.14 Ostrov Shokalskogo (73°00'N., 74°30'E.), 24m high, lies on the E side of the entrance to Obskaya Guba and is covered with tundra, lakes, and marshes. The tundra terminates near the coast of the island, either in steep terraces or rounded hills with gently sloping and, in some places, steep sides. The NW and SW shores of the island consist of steep cliffs intersected by numerous streams and valleys.

Reka Pereprava, the deepest stream, flows through the SW shore of the island into the outer part of the gulf and discharges via three branches. The central branch is about 40m wide and has a depth of 2m over a bottom of sand. A trading post and a wintering hut are situated on the E side of the entrance to the S branch.

Proliv Gydanskiy separates Ostrov Shokalskoga from the N end of Poluostrov Yavay. This strait, which is about 2.5 miles wide at its W entrance, is encumbered by drying flats and should not be entered.

Ostrov Vilkitskogo (73°30'N., 75°45'E.) lies on the E side of the N approach to Obskaya Guba. This low, sandy island is covered with tundra in its SE part. The SW part of the island consists of a narrow and sandy spit, about 7.5 miles long. A light is shown from a wooden tower, 32m high, standing on the N shore of this island.

A beacon, 9m high with a radar reflector, stands on the S shore of the island. Another beacon, 15m high with a radar reflector, stands on the SE extremity of the island. Due to lack of information, the existence of these beacons cannot be relied upon.

It is reported that alluvial deposition is gradually building up a bank between Ostrov Vilkitskogo and Ostrov Neupokayeva, 20 miles SSE.

Mys Khae-salya (Mys Shaytanov) (72°54'N., 71°38'E.) projects N and is formed by a cliff, 6 to 8m high. From this point, the coast trends SE for 25 miles and then generally SSW for 82 miles to the outlet of Reka Latta Yaga. This section of coast forms the W side of the N part of Obskaya Guba and is 12 to 15m high with a general tundra-like character. The shore is generally marshy at the outlets of the numerous rivers and rivulets.

The water in the outer or N part of Obskaya Guba is a combination of the muddy fresh water of Reka Ob and the clear salt water of the Kara Sea. The confluence of these two waters is not a constant line, being affected both by winds and currents. Eddies and tide rips often occur where the waters meet, and these places are usually indicated by lines of foam which extend across the gulf.

5.15 From Mys Khae-salya (Mys Shaytanov), the E coast of Poluostrov Yamal trends ESE for 25 miles to Mys Poyelovo and forms the W side of the N portion of Obskaya Guba. Except for a section extending between 6 and 15 miles from the former point, this stretch of coast consists of steep cliffs which are formed of sand and clay and intersected by streams. The entrance to Zaliv Khole Paga, a shallow inlet, lies 8.5 miles SE of Mys Khae-salya.

Mys Poyelovo (72°41'N., 72°55'E.) is formed by a dark-colored cliff which rises to a low hill. This cliff is conspicuous and can be distinguished from up to 20 miles N in clear weather. A prominent hummock stands on the low sand spit which extends E for about 2 miles from this point.

Mys Drovyanoy (72°39'N., 72°58'E.), considered to be the SW entrance point of Obskaya Guba, is the NE extremity of an island which is separated from Poluostrov Yamal by a narrow channel. This island is low, but a few small hummocks, up to 4.5m high, rise on it. The S part of the island consists of a narrow sandspit which covers in places at HW and extends up to 8.5 miles S from Mys Drovyanoy.

Mys Tyye-Sale (72°30'N., 72°51'E.), located 11 miles S of Mys Drovyanoy, is the N entrance point of a shallow river. For about 10 miles S of this point, the coast is formed by cliffs, 3 to 9m high. Between these cliffs and the outlet of Reka Yarra-Yaga, 4.5 miles S, the coast is mostly marshy with some low cliffs in a few places. The mouth of the river is obstructed by an extensive drying sand bank.

5.16 Drovyanaya (72°25'N., 72°46'E.), a settlement consisting of a trading post and a polar station, is situated on the top of a cliff, 16 miles S of Mys Drovyanoy. The main building of this settlement is reported to be visible from up to 10 miles seaward. Vessels approaching the settlement should steer a course of 280° and pass about 1 mile N of a spar buoy which is moored E of it. Vessels approaching from the S should pass to the E of this spar buoy before altering course to 280°.

Mys Poludennyy (71°42'N., 72°19'E.), located 57 miles S of Mys Drovyanoy, is low, but conspicuous from the S. From the N or E, this point merges with the coast. The low shore extending S of the point is closely backed by a small ridge and a marshy plain.

Tambey (71°29'N., 70°48'E.), a village, stands 2.5 miles S of the S branch of Reka Tambey. The buildings of the trading post in this village are reported to be visible from the middle of the gulf.

Between the S branch of the **Reka Tambey** (71°32'N., 72°00'E.) and the outlet of Reka Latta-Yaga, the coast trends SSE for 10.5 miles. The inland hills approach the shore at the N end of this stretch and attain heights of up to 15m. These hills gradually decrease to heights of only 4m at the S end of this stretch and the shore changes to low and sandy ground with small hummocks.

5.17 Mys Yavay (72°48'N., 74°46'E.), the northernmost point located on the E side of the N part of Obskaya Guba, is the NW extremity of Poluostrov Yavay. From the S, this point appears bold and conspicuous, but it blends with the level uniform coast when seen from the W.

From this point, the coast trends S for 39 miles to the outlet of Reka Sabule-Yaga. This section of shore is comparatively steep and of uniform height. It is intersected by numerous rivers, streams, and gullies.

From the outlet of Reka Sabule-Yaga, the coast trends SW for 34 miles to Mys Nyar-Salem-Pyye. It then trends SSW for 27 miles to Mys Khonora-Sale, which is considered to be the S limit of the E side of the N part of the gulf. These sections of shore are alternately low and hilly and numerous small streams flow through them.

The coastal banks and dangerous shoal areas lying off Mys Nyar-Salem-Pyye consist of fine sand. However, mud may be found in some places close inshore, so that the nature of the bottom in this area is of little value in estimating the distance from the coast.

Reka Sabule-Yaga (72°09'N., 75°00'E.) flows through the E side of the N part of the gulf, 39 miles S of Mys Yavay. The valley of this river is prominent, being 2 miles wide; a conspicuous conical hill, 12m high, stands 1 mile S of the mouth. It is reported that the current flowing out of the river mouth may attain a velocity of up to 2 knots. The river entrance is obstructed by a shallow bar.

5.18 Reka Ngarka-Tidngedayakha (71°57'N., 74°21'E.) flows through a valley, 3 miles wide, and discharges through an outlet lying 51 miles S of Mys Yavay. A beacon, 14m high and surmounted by a staff and barrel, stands about 0.5 mile inland, on the NE bank of the river. From seaward, the mouth of the river valley appears as a bay.

Mys Nyar-Salem-Pyye (71°47'N., 73°30'E.) is located 63 miles SSW of Mys Yavay. This point rises to three steep, conspicuous, and sandy hills. From the N, the point appears as a steep bluff with a low spit extending S from it.

Mys Taran (71°24'N., 73°00'E.), located 24 miles SSW of Mys Nyar-Salem-Pyye, resembles the ram built on old type battleships. It projects W and is conspicuous from the N or S. A beacon, 14m high, is reported to stand on this point.

A constant N current has been reported to set off Mys Taran. With prolonged S winds, this current may attain a rate of 1.5 knots. A S undercurrent, with a rate of 0.8 knot, has also been observed at depths of 10 to 15m during S winds.

Caution.—A spoil area has been established between 10 and approximately 20 miles S of Mys Taran and is bounded by lines joining the following positions:

a. 71°17’21”N, 72°24’06.7”E.
b. 71°18’23”N, 72°26’30.7”E.
c. 71°14’56”N, 72°45’08.6”E.
d. 71°09’47”N, 73°00’02.6”E.
e. 71°13’59”N, 72°32’02.7”E.
f. 71°17’21”N, 72°24’06.7”E.

5.19 From the village of Tambey, the W side of the middle part of Obskaya Guba trends generally SSE for 171 miles to Mys Kamennyy. This coastal stretch has no bays or other indentations of sufficient size or depth to afford shelter to deep-draft vessels.

The water in this part of the gulf is fresh, but with prolonged N winds, the surface layers near Mys Taran become slightly salty at times.

In almost all the deeper areas of this part of the gulf, the bottom consists of gray or grayish-brown mud covered by a layer of sticky yellow ooze.

In the lesser depths lying near the shore flats and isolated shoals, and particularly near the outlets of the rivers, this ooze becomes mixed with sand. The shore flats and shoals themselves are entirely composed of sand which is usually fine, but occasionally coarse.

The fairway channel leading through the middle part of the gulf has a least depth of 11m and lies nearer to the E shore than the W.

Caution.—Banka Vilkitskogo, with a least depth of 7.6m, lies in the middle of the gulf between 18 and 24 miles S of Mys Taran. It is reported that this shoal bank has a least depth of 6.4m during strong N winds. During the early part of the navigation season, icebergs are frequently stranded on this bank.

Shoal patches, with depths of less than 9m, lie up to 10 miles offshore between Mys Poruy and Mys Top-Sale. The fairway channel passes E of these dangers.

5.20 Reka Latayakha (71°21'N., 72°00'E.) flows into the gulf 8.5 miles SSE of the village of Tambey. This river outlet marks the boundary between the N and middle parts of Obskaya Guba, on the W side.

Sabetta (71°17'N., 72°05'E.), a new LNG port, is located in the approaches to Reka Sabettayakha, which is marked by a lighted beacon. Port Sabetta is situated in the mouth of the Sabettayakha River, on the W side of Obskaya Guba and is the port facility for the Yamal LNG terminals. Work is in progress to dredge the approach channel to a reported depth of 15.1m. Reclamation work and the construction of the main LNG terminal berths in the vicinity of position 71º16.5'N, 72º05.6'E are ongoing. Full operational capacity is expected by 2021. The port is operational year-round and a tug is available.

Depths—Limitations.—The least charted depth (2020) in the approach channel is about 14m and in the harbor basin is 9.8m. For detailed berthing information, see the table titled **Sabetta—Berth Information**.

Aspect.—The port consist of a harbor basin with a concrete quayside in the NW part and a concrete pier lying to the SE. Berth Nos. 1 through 4, with charted depths ranging from 7.7 to 10.6m, are located on the NW quayside. Berth Nos. 5 and 6 are located on the concrete pier (71º16.6'N., 72º05.6'E.), with charted depths ranging from 8.4 to 11.6m. All of the berths are being utilized for the construction of the LNG terminal.

Pilotage.—Pilots board in position 71°21'15"N, 72°20'12"E.

Contact Information.—See the table titled **Sabetta—Contact Information**.

Sabetta—Contact Information	
Port	
Call sign	Sabetta Radio 5
VHF	VHF channels 14 and 16
VTS	
Call sign	Sabetta Traffic
VHF	VHF channels 9, 12, and 16
Coastal Station	
Call sign	Sabetta Radio 1
VHF	VHF channels 1, 2, and 16

Sabetta—Berth Information					
Berth	Length	Depth	Maximum Vessel		Remarks
			LOA	Beam	
Sabetta Yamal LNG Project West Quay					
Main Quay 1	214m	13.0m	—	23.1m	Aggregates, containers, project/heavy cargo, steel products, breakbulk, and multipurpose.
Main Quay 2	225m	13.0m	176m	24.5m	Clean products, containers, project/heavy cargo, steel products, breakbulk, and multipurpose.
Main Quay 3	250m	13.0m	190m	30.5m	Containers, project/heavy cargo cargo, steel products, and breakbulk.
Main Quay 4	205m	13.0m	—	—	Closed (2025).
No. 5	228m	—	—	—	Breakbulk, tugs, and icebreakers.
Utrenniy Terminal					
Berth 1	325m	—	—	—	LNG. Closed (2025).
Berth 2	325m	—	—	—	LNG. Under construction (2025).
Berth 3	305m	—	—	—	LNG. Under construction (2025).
(MOF)	337m	—	—	—	Breakbulk.
Sabetta Yamal LNG Project East Quay					
LNG North	130m	—	299m	50.0m	LNG.
LNG South	120m	—	299m	50.0m	LNG. Maximum draft of 11.3m.
LNG Berth 3	392m	—	—	—	LNG.

Sabetta—Contact Information	
Operators	
Telephone	7-495-228-9850
Facsimile	7-495-228-9849
E-mail	yamalspg@yamalspg.ru
Web site	http://www.yamallng.ru
Pilots	
Call sign	Sabetta Radio 11
VHF	VHF channel 14

Directions.—From a position W of Mys Khonarasalya (71º23.9'N, 73º00.3'E), the track leads SW following a two-way deep-water route (226.6º) to the harbor basin.

Mys Poruy (71°05'N., 72°38'E.), located 31 miles SSE of Tambey, is the SE extremity of a river delta which forms a wide, low, and easily-identified gap in the coastal hills. A conspicuous hummock, 24m high, stands 16.5 miles S of this point.

Reka Ser-Yakha (70°37'N., 72°36'E.) flows into the gulf through several mouths, 28 miles S of Mys Poruy. The valley of this river, at its outlet, is 8 miles wide and has conspicuous, steep, and light-colored sides.

Mys Belyy (70°23'N., 72°44'E.), located 12 miles S of Reka Ser-Yakha, can be identified by the bright color of its steep sides.

Mys Tibey-Nadu (70°10'N., 72°34'E.), located 13.2 miles SSW of Mys Belyy, is a conspicuous headland which is surmounted by a prominent hummock, 26m high. Reka Se-Yakha discharges into the gulf close N of this headland. The mouth of this river, which is 1 mile wide, is obstructed by a bar and divided into two channels by an islet. A trading station is reported to be situated 1.2 miles within the river entrance, on the S bank.

Mys Lebedinyy (69°52'N., 72°38'E.), located 18.5 miles S of Mys Tibey-Nadu, is 12m high, bluff, and conspicuous from the N. The coast in the vicinity of this point is steep. A small shallow spit extends NE from the point and small craft, with local knowledge, can obtain anchorage, in depths of 4 to 5m, under its lee.

5.21 Mys Yaltik-Sale (69°25'N., 72°35'E.) is located 29 miles S of Mys Lebedinyy. The first 3 miles of the coast between is bluff and 12m high. The remainder of the coast is low, except for a stretch lying near the outlet of Reka Yureveche, 14 miles S of Mys Lebedinyy. This stretch is about 5 miles long and 21 to 26m high.

Mys Munga (69°24'N., 72°34'E.), 17m high, is located 0.5 mile SW of Mys Yaltik-Sale. Between this point and Mys Top-Sale, 5.5 miles S, the high, steep coast is fronted by a beach formed of hard sand. Near Mys Top-Sale, the coastal hills recede 3 miles inland and are fringed by a strip of marshy tundra. Farther S, the hills again approach the coast.

Reka Lymbyna (68°49'N., 72°40'E.) flows into the gulf 28 miles S of Mys Top-Sale. Between the outlet of this river and the outlet of Reka Nurma, 11 miles SE, the coastal hills again recede inland and the coast is bordered by a belt of tun-

dra with a few hummocks. One of these hummocks, which rises about midway between the two rivers, is conspicuous from seaward. The entrances of the two rivers are obstructed by bars.

Mys Kamennyy (68°30'N., 73°34'E.) is located 16 miles SE of the outlet of Reka Nurma. The coast extending for 8 miles NW of this point consists of steep cliffs intersected by gullies. These cliffs are known as Snyegovoy Yar (Snowy Cliffs) because of the snow that lies in the gullies and renders them very conspicuous. A narrow spit extends about 4 miles S from the point. A trading and fishing post is reported to be situated in the vicinity of the point.

5.22 Mys Khonora-Sale (71°23'N., 73°02'E.), 40m high, is located on the E side of Obskaya Guba. The wide valley of a river lies between this point and Mys Taran, 2.5 miles N. The mouth of the river is 55m wide and is obstructed by a shallow bar. A trading post is reported to be situated near the river entrance. Anchorage, with good shelter from winds from between N and ESE, can be obtained, in depths of 9 to 12m, about 0.5 mile offshore, 1.5 to 2 miles SE of this point.

From Mys Khonora-Sale, the E coast of the gulf trends S for 145 miles to Mys Trekhbugornyy. This section of the E shore is higher than the W shore. It is generally bold, although several river valleys lie along it.

The fairway channel, with depths of 11 to 14m, passes through the middle part of the gulf and lies closer off the E shore than the W.

A shoal bank, with a depth of 10m, lies in the middle of this part of the gulf. It extends 13.5 miles S from a position lying about 48 miles S of Mys Khonora-Sale.

Reka Yara-Lerke-Yaga (71°10'N., 73°38'E.) flows into the gulf 18 miles SE of Mys Khonora-Sale. The coast between consists, in most places, of steep cliffs, 40 to 46m high, which are backed by a plateau. A conspicuous hill, 75m high, stands about midway along this section of the shore.

A prominent hummock, 64m high, stands 4.5 miles ESE of the river mouth. From S, this hummock appears prominent and detached from several other hills, 30 to 40m high, which rise in this vicinity.

5.23 Mys Khaltsyanay-Sale (70°50'N., 73°57'E.) is a low and indeterminate point which is formed by silt from a river. From this point, the coast trends SE for 11 miles to Reka Glubokaya. The first 2.3 miles of this stretch rises to grass-covered hills. The remainder consists of cliffs, 33 to 43m high, intersected by numerous gullies.

Chum Gora (70°33'N., 74°20'E.) rises close to the coast, 19 miles SSE of Mys Khaltsyanay-Sale. This conical hill has a very conspicuous and light-colored summit.

Reka Tidebe-Yakha (70°23'N., 74°08'E.) flows into the gulf through two outlets which are separated by a sandy islet. The valley of this river, which is 1.5 miles wide, lies 10 miles SSW of Chum Gora. The river banks are covered with a thick growth of willows and the entrance is fronted by a sandy bar with a depth of 3.4m.

Mys Sapozhnikova (70°13'N., 73°47'E.), a headland, is located 14 miles SW of Reka Tidebe-Yakha and surmounted by a beacon, 13m high. High ground, which attains a height of 70m, extends S from this headland and away from the coast. It then forms a line of hills, 40 to 50m high, which are fronted by a strip of low tundra.

Anchorage, with good shelter from S winds, can be taken, in depths of 5 to 6m, about 0.5 mile off this headland, but there is no shelter from SW winds.

Mys Kharse (70°07'N., 73°42'E.), from which a light is sometimes shown, is located 4.5 miles SW of Mys Sapozhnikova. A spit, with a least depth of 3.2m, extends 2 miles W from this point and its steep-to outer extremity is marked by a buoy. A shoal patch, with a depth of 9.4m, lies about 5 miles NNW of the point and another shoal patch, with a depth of 10.6m, lies about 6 miles NNW of it.

Between Mys Kharse and Mys Nalivnoy, 23 miles S, the coast is backed by a hummocky plain, 20 to 40m high, with several individual hummocks up to 70m high. Reka Nankay-Yaga (Napkay-yaga) flows through a steep-sided valley, 4 miles wide, and has two outlets which are separated by a sandy islet. This islet is fronted by a flat which has a depth of 3m and extends up to about 2 miles offshore.

A bight, 5.4 miles wide, is formed between the N outlet of the river and Mys Kharse. A trading post stands on the E side of this bight. Vessels can anchor, sheltered from winds from NW through N to SSE, in a depth of 7m, about 1 mile off the shore of the bight.

Chum Bugor (70°01'N., 73°51'E.), a conspicuous hill, stands near the coast, 7.5 miles SSE of Mys Kharse. A line of conspicuous white, notched cliffs, up to 30m high, extends 2.3 miles S from a point located close S of this hill. A conspicuous hillock, 70m high, rises 9 miles SSW of the hill.

5.24 Mys Nalivnoy (69°44'N., 73°32'E.), from which a light is sometimes shown, is the W extremity of a low, marshy plain. This plain extends 3 miles W from the foot of the coastal hills standing between Reka Yun-Yaga and Reka Vari-Yaga. The outlets of Reka Yun-Yaga and Reka Vari-Yaga lie 3.5 miles N and 2.5 miles S, respectively, of the point.

A shoal patch, with a depth of 3.6m, lies about 2.5 miles W of Mys Nalivnoy and is marked by a buoy. A channel leads between this shoal and the point. It has depths of 4.9 to 5.8m and is used by local craft.

A beacon (Tabu-Yaga), 14m high and surmounted by a diamond shape, is reported to be situated 6.5 miles SSE of Mys Nalivnoy. A hillock stands 1 mile S of this beacon. It is conspicuous from the SW, but merges with the high coast on other bearings.

Mys Trekhbugornyy (69°05'N., 73°52'E.), 40 to 50m high, is located 40 miles SSE of Mys Nalivnoy. This bold headland, which is the northernmost point located on the E side of the S part of the gulf, is faced by prominent steep dark-colored cliffs. Gora Stolovaya rises 8 miles N of the point. This hill is 56m high, trapezium-shaped, and very conspicuous from the W. Grib Gora rises 1.5 miles inland, 18 miles N of the point. This prominent hill is 79m high and mushroom-shaped. Gora Peycheta rises 30 miles N of the point. This prominent hill is 38m high and has a light-colored summit.

A spit, with depths of less than 11m and a depth of 6.7m lying near its outer extremity, extends about 6 miles SW from Mys Trekhbugornyy. A buoy is moored off the W side of the outer part of this spit which, in any sea, is well marked by breakers. It has been reported that there is nearly always a short, confused sea in the vicinity of this spit and the point.

5.25 Mys Kamennyy (68°30'N., 73°34'E.), the northernmost point on the W side of the S part of Obskaya Guba, is formed of low marshy ground which rises close inland to several hills, up to 50m high. A light is reported to be sometimes shown from this point. A trading post and a fishing station are situated near the point.

Kosa Kamennaya, a narrow and sandy spit, extends 4 miles S from Mys Kamennyy. A shoal bank, with depths of less than 5m, extends up to 14.5 miles SSW from the outer end of this spit. The outer edge of the bank lies 4 to 7 miles offshore and is marked by a lighted buoy and two spar buoys.

From Mys Kamennyy, the W side of the S part of the gulf trends irregularly SSW for 104 miles to Mys Yam-Sale, the W and outer extremity of Reka Ob' delta. This part of the W shore is lower than the E and consists principally of low tundra backed by sloping hillocks, 9 to 20m high.

Caution.—There is a submerged obstruction, with a depth of about 0.3m, situated about 15 miles S of Mys Kamennyy.

A dangerous wreck with masts showing lies about 9 miles S of Mys Kamennyy.

5.26 Mys Vitkova (67°19'N., 72°24'E.) is located 57 miles SSW of Mys Kamennyy. In the vicinity of this point, the W shore is brush-covered.

Numerous streams and rivers flow through the W shore of the S part of the gulf and have low, marshy ground near their outlets.

Most of the bottom in the S part of the gulf consists of sticky, bluish or dark-gray mud, with good holding ground. It is formed by sand mixed with mud near the outlets of the streams and rivers. The S part of the gulf is shallower than the N and middle parts. Depths of less than 11m lie S of the parallel of 68°12'N.

Banka Yuzhnyy Vilkitskiy, with a least depth of 5.2m, lies in the middle of the gulf about 13 miles SE of Mys Kamennyy. The W side of this shoal bank is marked by a lighted buoy and a spar buoy. Banka Prokhorov, with a least depth of 3m, lies about 2 miles SE of Banka Yuzhnyy Vilkitskiy.

The water level in the S part of the gulf is subject to considerable changes due to the wind. Winds from the N raise the level and winds from the S lower it. The N and NE winds, which prevail during the navigation season, usually keep the water level above the mean level. However, a shift of the wind to the S may cause a sudden and more gradual fall in the level. Strong S or SW winds, if prolonged, may cause a lowering of the water level so as to decrease the charted depths by as much as 0.9m. In exceptional circumstances, the charted depths may be decreased by as much as 1.5m.

In fine weather, with much moisture in the air, intense mirages and strong refraction have been observed in the S part of the gulf.

Bukhtovyy Beacon (68°26'N., 73°26'E.), 9m high, and O-Yaga Beacon, 10m high, stand 5 miles and 10 miles, respectively, SSW of Mys Kamennyy.

5.27 Reka Yer-Yaga (68°09'N., 73°10'E.) flows through a valley, 3 miles wide, located 24 miles SSW of Mys Kamennyy. Depths of less than 5m extend up to 4 miles ESE from the outlet of this river.

Three prominent hillocks, standing in a row, rise 3 miles W of the river mouth and are conspicuous from the NE. These hillocks appear as a point when the low ground close N of them is below the horizon. From the hillocks, a line of level cliffs stands close inland and extends 6 miles S.

Mys Setnoy (67°55'N., 73°10'E.), located 36 miles SSW of Mys Kamennyy, is marked by a beacon, 15m high, which surmounts a hummock. This hummock is dark-colored and appears conspicuous against the low level tundra.

A shoal, with depths of less than 5m, extends up to 5 miles offshore between this point and the inner end of Kosa Mar-Sale.

Kosa Mar-Sale (67°41'N., 73°06'E.), a spit, extends about 2 miles seaward from a point located 13.5 miles S of Mys Setnoy. It is reported that a light is sometimes shown from a structure standing on this spit. A detached shoal, with a depth of 3.9m, lies about 5 miles E of the S extremity of the spit.

5.28 Novyy Port (67°40'N., 72°54'E.), a large settlement and fishing center, is situated in the SW portion of a bight indenting the W shore of Obskaya Guba. This port, which lies 319 miles within the entrance of the gulf, is important as a place for the transhipment of cargo from ocean-going vessels to river craft.

Novyy Port is entered between the S extremity of Kosa Mar-sale (67º41'N., 73º05'E.) and Mys Ostrovskoy.

Winds—Weather.—The prevailing winds are N during the navigation season.

Ice.—Slush ice appears in the port during the first half of October. Young ice appears about the middle of the same month, gradually thickening until the bay is completely frozen over during the latter half of the month. Under the influence of the currents, the ice then becomes hummocked with an uneven surface. Adjacent to the port area, the gulf becomes covered with fast ice from about 10 to 15 days later than within the bight. The ice rapidly increases in thickness during November and December and attains its maximum thickness of about 1.5m in May. The average date for the breakup of the ice in the bight is 19 June. The average complete clearance date is 13 July.

Depths—Limitations.—The navigation season at the port usually lasts for about 3.5 months. The average open date is 7 July with the earliest being 28 June and latest being 15 July. The average closing date is 23 October with the earliest being 12 October and the latest being 8 November.

The harbor is entered between the S extremity of Kosa Mar-Sale and Mys Ostrovskoy, 6.5 miles SW. It is reported that vessels with drafts of up to 5.9m can usually be handled within the port. For berthing information see the table titled **Novyy Port—Berth Information**.

Banka Mar-Sale, the continuation of Kosa Mar-Sale, extends about 3 miles S and then 6 miles SW from the outer end of the spit. This shoal bank has depths of 2 to 4.5m and its E, SE, and SW sides are marked by buoys.

Reyd Vnyeshniy, the outer anchorage roadstead, comprises the area lying off the SE side of Banka Mar-Sale and has depths of 6.4 to 7m. It is open to winds from N, through E and S, to SW, but is reported to be a safe even with strong winds.

Reyd Vnutryenniy, the inner anchorage roadstead, comprises the area lying between the SW side of Banka Mar-Sale and the outer edge of the drying coastal shoal fronting Mys Ostrovskoy. The edge of this coastal shoal is marked by buoys. The deepest part of this roadstead has depths of 5.8 to 6.7m and is marked by a buoy which is moored 1.8 miles SE of Mys Ostrovskoy. This roadstead is more suitable than the outer one for working cargo, but it is open to winds from E, through S, to SSW. These winds send in a short and heavy sea which sometimes forces the river craft and lighters to take shelter in the harbor area. The approach to this anchorage roadstead has a least depth of 5.2m.

Novyy Port—Berth Information

Berth	Length	Depth	Remarks
No. 01	23m	—	Containers, fishing vessels, and breakbulk.
No. 02	—	—	Containers, fishing vessels, and breakbulk.
No. 03	20m	—	Fishing vessels and breakbulk.
No. 04	15m	—	Used by tanker barges
STS Area	—	6.4m	Containers, transhipment, offshore vessels, fishing vessels, and breakbulk.

Caution.—The depths in Novyy Port may be increased or decreased by the wind and changes of up to 1.5m in the water level have been reported. Strong and prolonged SW winds may reduce the depths by up to 1.2m. During such winds, the fall in the level is slow. However, with fresh N winds, the rise in water level is much more rapid. If the winds shift or fail, the level quickly returns to normal. During the navigation season, the prevailing winds are from the N and the water level is accordingly usually raised from 0.4 to 0.9m.

5.29 From Mys Ostrovskoy, the S entrance point of Novyy Port, the low coast trends WSW for 4.5 miles to the N entrance point of Bukhta Manikha, a shallow inlet. Three conspicuous hillocks rise between these two points. The middle hillock is 7m high and has a prominent, steep E slope. It is reported that a light is sometimes shown from a structure standing on the southernmost hillock.

Mys Poyute (67°32'N., 72°34'E.) is located 61 miles SSW of Mys Kamennyy and a hillock, 12m high, stands 1.5 miles WNW of it. This hillock is conspicuous from the W, but merges with other hillocks in the background when viewed from the SE or S.

Maksin Bugor rises 75 miles SSW of Mys Kamennyy. This hill is 18 high and very conspicuous because of its dark color.

Mys Vitkova (67°19'N., 72°24'E.), from which a light is sometimes shown, is located on the W shore of the gulf, 77 miles SSW of Mys Kamennyy.

Mys Yeliseyeva is located along on the N shore of Bukhta Nakhodka, 2 miles W of Mys Vitkova, and is surmounted by a beacon, 9m high. This beacon is reported to be inconspicuous from seaward as it merges with the background hills.

Bukhta Nakhodka is entered between Mys Vitkova and Mys Mordovina, 6 miles SW. This bay, which provides shelter for river craft, is mostly shallow and was formerly used for transshipping cargo.

Bugor Mordovina (67°12'N., 72°12'E.) stands 0.2 mile inland. This conspicuous hill is 12m high and saddle-shaped.

Mys Botkina (67°09'N., 72°11'E.), from which a light is sometimes shown, is located on the W side of Obskaya Guba, 87 miles SSW of Mys Kamennyy. A coastal bank, with depths of 2 to 2.4m, extends about 4 miles S from this point and its E edge is marked by four buoys.

Banka Opasnaya, with a least depth of 0.2m, lies about 11 miles SSE of the point; its NW and SW sides are marked by buoys.

Mys Slinkina (67°03'N., 72°01'E.) is located 7 miles SSW of Mys Botkina and is surmounted by a beacon, 9m high. Another beacon, 15m high, stands 5.5 miles SW of this point.

5.30 The E side of the S part of Obskaya Guba extends generally SSW for 158 miles from Mys Trekhbugornyy to Mys Santiba, the easternmost extremity of the outer part of Reka Ob' delta. The shore consists of an almost continuous line of cliffs and hillocks, 30 to 40m high, which are intersected by numerous rivers and streams. As far S as the parallel of 67°42'N, the E shore is marked by bushes and grassy tundra. Between this parallel and Reka Ob' delta, the shore is then covered with trees.

Mys Kruglyy (68°43'N., 74°28'E.), located 27 miles SSE of Mys Trekhbugornyy, is 40m high and forms the S entrance point of Tazovskaya Guba. This conspicuous point rises in steep sandy cliffs; a light is sometimes shown from a structure standing on it.

Tazovskaya Guba is entered between Mys Kruglyy and Mys Trekhbugornyy. This extensive inlet extends about 55 miles E, 50 miles SSE, and then 30 miles S to its head. For the most part, this inlet is very shallow and can only be used by small craft, especially E of Mys Povorotny. Two submerged obstructions lie about 35 miles ENE of the entrance to the inlet.

5.31 **Mys Parusnyy** (68°22'N., 74°21'E.), located 45 miles SSE of Mys Trekhbugornyy, is a prominent point. The stretch of the shore extending close N of this point attains heights of up to 35m and is terraced.

A conspicuous light-colored cliff stands 3 miles NNE of the point, and a conspicuous dark-colored cliff stands 2 miles

NE of it. A beacon, 13m high, stands on the cliff at the W extremity of the point. Pila Gora rises 3 miles SE of the point. This hill has a serrated summit and is conspicuous.

A sandy spit, with depths of less than 5m, extends up to about 2.5 miles W and 3.5 miles SW from Mys Parusnyy and is marked by breakers during fresh winds.

Reka Vatseuta (67°54'N., 74°50'E.) flows into the gulf 76 miles SSE of Mys Trekhbugornyy and Reka Yepoka-Yaga discharges through an outlet lying 5 miles S of it. The valleys of both these rivers have entrances with conspicuously steep sides, those of Reka Yepoka-Yaga being dark-colored.

Mys Salimbule (67°09'N., 73°56'E.), a conspicuous coastal bluff, is located 73 miles S of Mys Parusnyy.

Mys Nydskiy (66°43'N., 72°58'E.), located 34 miles SW of Mys Salimbule, is steep and dark-colored. A light is sometimes shown from a structure standing on this bluff.

Reka Nyda, which can be entered only by small craft, flows into the gulf 5 miles S of Mys Nydskiy. It is reported that a settlement and fishing center is situated close within the outlet of this river.

Gydanskaya Guba (Gydanskiy Zaliv)

5.32 Mys Severo-Vostochnyy (73°05'N., 74°44'E.) forms the NE extremity of Ostrov Shokal'skogo, which is the outermost island lying on the W side of the approach to Gydanskaya Guba. A sandy ridge, which covers in places at HW, extends about 6 miles SW from the point. The NE side of this ridge is comparatively steep-to and depths of 9m lie as close as 1 mile seaward from it.

Gydanskaya Guba is entered between Mys Arkanova and Mys Mamonta. A channel leads W of Ostrov Vil'kitskogo and then along the E side of Poluostrov Yavay to this entrance. It is 3 to 10 miles wide and has depths of 9 to 18m in the fairway. This channel has not been closely examined and irregular depths and numerous shoals lie in its N part.

Ice.—Ice conditions in the approach to Gydanskaya Guba are approximately the same as in the approaches to Obskaya Guba and Yeniseyskiy Zaliv.

Tides—Currents.—The currents in the approach to Gydanskaya Guba are generally weak. The tidal currents are also generally weak, with rates of up to 0.5 knot, but rates of up to 2 knots have been reported off the NW side of Ostrov Oleniy.

Caution.—Banka Bol'shaya, lying on the E side of the approach, has depths of 3 to 5m, but is reported to be extending due to alluvial deposits.

Local knowledge is required to enter Gydanskaya Guba.

Several beacons were formerly situated in Gydanskaya Guba and the approaches, but their positions and existence are no longer known due to a lack of reliable information concerning navigational aids.

The water level in the gulf is raised by N winds and lowered by S winds.

5.33 Ostrov Neupokoyeva (73°09'N., 76°25'E.) lies at the N end of Banka Bol'shaya, 25 miles ENE of Mys Severo-Vostochnyy. Two groups of hillocks stand in the middle of this island and appear as lofty hills. Due to the shallow depths in this vicinity, only the E side of the island can be approached.

Ostrov Oleniy (72°27'N., 77°46'E.) lies on the E side of the S part of the approach to Gydanskaya Guba. This island is low, tundra-covered, and its NW shore is fronted by drying sand flats which extend up to 1.8 miles seaward. A beacon stands on the coast, 3 miles NNE of the SW extremity of this island. Ostrova Proklyatyye, a group of four grass-covered islets rising from the sand flats, lies close off the S shore of the island.

5.34 Mys Matte-Sale (72°53'N., 74°54'E.), the N extremity of Poluostrov Yavey, is located on the W side of the approach. It is 5m high and consists of a sandy formation, within which the land rises gently. Mys Severnaya Karga is located 13 miles SE of this point and forms the E extremity of a low marshy projection.

Mys Peschanyy is located 13 miles S of Mys Severnaya Karga and a partly-drying flat extends 5 miles SSE from it. Small vessels can anchor within a bight lying close S of it.

Mys Dalekiy (72°15'N., 75°41'E.), a large bluff, is located 15 miles S of Mys Peschanyy and a river enters the sea close N of it. Ostrov Pestovyy lies on a flat, with depths of less than 5m, which extends 5 miles SE from the S side of the point.

Mys Arkanova is located 19 miles SSW of Mys Dalekiy and forms the W entrance point of Gydanskaya Guba. A beacon stands on the coast, 6 miles N of this point.

Mys Minina (72°04'N., 76°52'E.), low and marshy, is located on the E side of the approach, 14 miles S of the SW extremity of Ostrov Oleniy. A beacon stands on the coast 3.5 miles W of this point.

Yuratskaya Guba is entered between Mys Minina and the W extremity of Poluostrov Oleniy, 9 miles E. This bay has not been examined, but is reported to have depths of 4 to 6m. Strong currents have been observed in the entrance.

Between Mys Minina and Mys Mamonta, 20 miles SW, the coast, which is formed by the NW side of Poluostrov Mamonta, is hilly, except for the wide outlet of a river lying about midway. A fishing station is situated on the NE side of the river.

5.35 Mys Vostochnyy (71°37'N., 76°14'E.), located 18 miles SSE of Mys Mamonta, rises steeply from the sea and is surmounted by a beacon.

Bukhta Khal'mer lies 36 miles SE of Mys Vostochnyy. This bay is divided into two parts by a drying sand spit which extends about 2 miles E from its W entrance point. The outer part of this bay, near the E entrance point, provides good anchorage for small vessels.

Bukhta Nyada lies close SE of Bukhta Khal'mer and has a prominent flat-topped hill standing on the E side of its head. A spit, with depths of less than 1.8m, extends about 2 miles SE from the W entrance point of this bay. Small vessels can shelter from all except W winds in this bay.

Mys Zelenyy (71°26'N., 75°26'E.), located on the W side of Gydanskaya Guba, is low, inconspicuous, and fringed by a drying sand flat. Between this point and Mys Ugulok, 28

miles SE, the shore recedes to form a bight. Reka Yuribey, which can only be used by small craft, flows into the gulf through two outlets which lie 6 and 9 miles E of Mys Ugulok. A beacon stands on the W side of the W outlet of this river and a trading post, with a polar station, is situated on the E bank, about 8 miles above the entrance.

Reka Gyda-Yaga flows through the head of Gydanskaya Guba and can be entered by only small vessels. A large trading station stands on the S side of the outlet of this river which widens out into a shallow lake, about 3 miles above its mouth.

Yeniseyskiy Zaliv

5.36 Yeniseyskiy Zaliv (73°10'N., 77°50'E.) is entered between the NE extremity of Ostrov Vil'kitskogo and Mys Severo-Vostochnyy, 76 miles E, and extends 135 miles in a SE direction to the mouth of Reka Yenisey. The outflow from this river causes a current to set N throughout the whole of the gulf. However, in the outer part of the gulf, the river current is affected by the other currents and the wind. This gulf is usually clear of ice from the end of July to the end of September, but conditions vary from year to year.

Caution.—The buoys in Yeniseyskiy Zaliv are removed annually just before the open navigation season closes. They are replaced when the navigation season opens again, but may not be always placed in the same charted positions.

5.37 Ostrov Dikson (73°30'N., 80°20'E.) is the largest island of an archipelago which lies SW of Mys Severo-Vostochnyy. This island is rocky, indented, and fronted by numerous islets and detached rocks. A lighted range, bearing 180°, is formed by two structures standing about midway along the N shore of the island and is used by vessels approaching from the N.

The W shore of the island trends S for 2 miles from Mys Krechatnik, the NW extremity, to the SW extremity. It consists of several low, rocky points which are fringed, in places, by sunken rocks. A lighted beacon is reported to stand about 0.6 mile SE of Mys Krechatnik.

A cove, in which small craft discharge cargo, lies 0.2 mile S of Mys Krechatnik. When entering this cove, care is necessary as rocks lie close off its S entrance point and near its head. Several buildings and radio masts stand on the S side of this cove and are visible from seaward.

The S shore of Ostrov Dikson is rocky, indented, faced with a few steep cliffs in places, and fronted by several islets and rocks. A lighted range, bearing 319°30', is shown from two structures standing near the SE extremity.

Bukhta Dikson indents the E side of the island, with general depths of 3.5m extending about 1.5 miles W of a line between Mys Lemberova and a point, 2 miles SSE. Depths shallow to less than 1m lie approximately 1 mile from shore.

Ostrova Medvezhi (73°31'N., 80°11'E.), a group of rugged islands and islets, lies close off the W shore of Ostrov Dikson. Ostrov Bol'shoy Medvezhi, the largest and westernmost island of this group, consists of two parts joined by a neck of low ground. A light is shown from a concrete tower, 17m high, standing on the NW extremity of this island. A radiobeacon is reported to be situated at the light.

Passage through the channels leading between the various islands and islets of Ostrova Medvezhi should not be attempted without local knowledge.

Caution.—An unknown obstruction, with a depth of 10.5m, is located S of Ostrov Medvezhi in position 73°29.8'N, 80°12.4'E.

5.38 Mys Severo-Vostochnyy (73°33'N., 80°32'E.), a low point not very conspicuous from seaward, is described in paragraph 6.2. Between this point and the entrance to Proliv Preven, 2.8 miles SSE, the mainland coast forms a bight which affords anchorage to vessels during E winds. A lighted range is shown from two structures standing on the S shore of this bight. Banka Stalintsa lies in the middle of the N approach to the bight, about 1.5 miles SW of Mys Severo-Vostochnyy. This steep-to and rocky patch has a depth of 4.2m; a lighted buoy is moored about 0.4 mile SE of it.

Old coal berth at Ostrov Konus

Ostrova Nordenshel'da (73°31'N., 80°29'E.) consists of three rugged, steep-to islands which lie between the extreme NE part of Ostrov Dikson and the mainland. A lighted range is shown from two structures standing on Ostrov Sakhalin, the middle island. A light is also shown from a structure standing on the E extremity of this island.

5.39 Port Dikson (73°30'N., 80°31'E.) (World Port Index No. 62695) is located in the SE part of the Kara Sea E of Ostrov Sakhalin at the mouth of Enisey Bay. This port is close to the track of the Northern Sea Route and is usually visited by vessels sailing along that route. The port handles general cargo, containers, automobiles, tractors, timber, coal, gravel, and sand.

Dikson is a headquarters for Arctic sea operations; the Chief of Kara Sea Navigation Service is located there. Dikson Polar Station is situated on the N side of the bay which indents the E side of Ostrov Dikson, with houses, sheds, radio and hydro-meteorological stations, fisheries, and an air base.

Port Dikson

Ice.—Ice formation begins around the end of October and will continue through the winter and spring months into June. Consequently, the navigation period in the port extends from June to October, although the harbor master is the one to decide the official opening and closing of the port. Icebreaker escorts are not carried out in the harbor during the period it is closed.

Depths—Limitations.—Port Dikson can be approached from the N or the S. The N approach can be made passing E or W of Ostrov Sakhalin. Passage W of Ostrov Sakhalin and through Proliv Lena is made only by small vessels due to the limiting depths of 4m in the strait. Proliv Preven is located E of Ostrov Sakhalin and can be used by vessels with a maximum draft of 11m. Due to the narrowness of Proliv Preven, the tidal currents can reach a velocity of 2 knots through this area. The S approach is taken by passing W and S of Ostrov Dikson, then through Proliv Vega where the maximum depths are 10m.

Entry into the port is restricted to Proliv Preven during the months of ice formation. For berthing information, see the table titled **Port Dikson—Berth Information.**

Port Dikson—Berth Information			
Berth	**Length**	**Depth**	**Remarks**
Portovaya Cargo Terminal			
No. 01	100m	9.4m	Chemicals, timber, coal, gravel, sand, and passengers
No. 02	95m	7.6m	Chemicals, timber, coal, gravel, sand, and passengers
Gavan Dikson Bay			
No. 07	20m	7.4m	Crude oil
Ostrov Sakhalin Oil Terminal			
No. 01	25m	9.6m	Crude oil
Bukhta Dikson Oil Terminal			
No. 01	—	5.2m	Crude oil

Two quays are located in Bukhta Portovaya. A written-off ice-breaking attachment is used as the floating berth of the fuel and lubricants depot. The attachment is secured on five anchors at a reinforced-concrete shore buttress and is equipped with pipelines for pumping petroleum products from tankers. The depths at the floating berth allow vessels with a maximum draft of 6m to moor. Passenger Berth No. 5 consists of wooden cribwork construction. The berth is 32m long, 8m in width, and 2.2m above water. Depths at this berth allow passenger vessels with drafts of up to 2.5m. The berth is connected to the shore by a wooden dike with a bridge crossing 4m in length. A service pier is located S of the berth.

Vessels with petroleum products can berth in the N end of the bay at a floating pontoon with depths of 7.4m alongside.

Another petroleum pier, 25m in length, located off the SE side of Ostrov Sakhalin, has depths of 9.6m alongside.

A quay in the E side of the bay can accommodate small vessels in depths up to 2.4m alongside.

Other berths are scattered outside Bukhta Portovaya at different islands in the area.

Ostrov Konus (located close SSW of Ostrov Sakhalin) has two berths that used to be used for coal, but now are only used for vessels in distress, seeking refuge, or repair.

A tanker berth in Bukhta Dikson just off Mys Lemberov has depths at LW of 5.2m.

Aspect.—A polar station is situated on the N side of Gavan Dikson. A conspicuous radio mast, 104m high, stands at this station close to several prominent houses and sheds.

Pilotage.—No pilots are available for Port Dikson, but if required, the harbormaster will perform pilotage duties and contact cab be made through VHF channel 16.

Regulations.—Vessels entering port for cargo operations should send their ETA to the Duty Officer 72 hours, 48 hours, 24 hours, and 6 hours prior to arrival. In addition to the ETA, the message should include the following information:

1. Expected draft upon arrival.
2. Advising which strait (Proliv Preven, Proliv Lena, or Proliv Vega) the vessel will be transiting for approach to Port Dikson.

Vessels entering port for reasons other than cargo operations need only to advise their ETA 24 hours in advance.

Permission to enter and depart the port is obtained from the Duty Officer. Vessels with dangerous or hazardous cargo can enter the inner roads only after arrangement with the Port Security Service.

Permission must be obtained from the harbormaster for all vessel movements within the harbor unless there is an emergency situation that would endanger other vessels or cause a problem to the port facilities.

The permitted speed of vessels in sea port waters is limited to not more than 6 knots. All vessel movement within the harbor must cease if visibility is less than 0.5 mile.

All vessels anywhere within the port and at a berth must maintain a listening watch on VHFF channels 9, 14, and 16.

Vessels at berths are not allowed to work their propeller nearer than 10m from the berth. Throughout the autumn/winter period, icebreaker operations are the responsibility of the Headquarters of Sea Operation by arrangement with the

port administration. During ice formation, sailing of vessels to the S of the main pier to the Vega Strait is prohibited. Entry into and out of the port is effected by the Preven Strait only. The port is closed from gales and can be used as shelter from stormy weather.

Contact Information.—See the table titled **Port Dikson—Contact Information**.

Port Dikson—Contact Information	
Port	
Call sign	MSCP-Dixon
VHF	VHF channels 9 and 16
Telephone	7-391-522-4099 (duty officer)
	7-815-268-9111 (traffic management)
Facsimile	7-815-268-9110 (traffic management)
Tugs	
VHF	VHF channel 14
Harbormaster	
Call sign	Port Control
VHF	VHF channels 14 and 16
Telephone	7-915-750-6423
E-mail	diksonmamp@mail.ru

Anchorage.—The outer roads N and S of Port Dikson are within the formerly mined areas 65A and 65B and are therefore prohibited from anchoring. See Pub. 180, Sailing Directions (Planning Guide) Arctic Ocean for exact limits of these prohibited areas.

Anchorage can also be obtained in Proliv Vega between Ostrov Dikson and the mainland and is bounded on the S by the parallel of Banka Eklips, and on the N by Ostrov Sakhalin. The area is well sheltered from winds and seas and is a very easy anchorage for vessels. Operations associated with vessels anchoring and weighing anchor and vessel mooring operations are carried out with the permission of the harbor master.

Congestion in the port and inner roads may require changes to these anchorages with permission from the harbormaster.

Caution.—It is reported (1996) that the military presence in Dikson has been greatly reduced, and the town and many facilities are dilapidated.

5.40 From Mys Skuratova, the E side of the outer part of Yeniseyskiy Zaliv trends S for 62 miles to Mys Krestovskiy, the S limit of the outer part of the gulf. This section of coast is indented by several bays, some of which provide sheltered anchorage. The shore mostly is steep-to, except in the inner part of the various indentations.

Yurskaya Guba (73°29'N., 80°40'E.) is entered between Mys Skuratova and a point, 1 mile SE. This inlet has a depth of 5m in the entrance, but is shallow inside and can only be used by small craft.

Mys Isachenko (73°19'N., 80°24'E.), a prominent headland, is faced with black, rocky cliffs which show up well against the gray background of grass-covered hills. A rocky spit extends about 0.2 mile NW from this headland. A light is reported to be shown from a structure, 14m high, standing 1 mile N of the headland.

Bukhta Yefremova is entered between Mys Isachenko and Mys Yefremov-Kaman, 7.5 miles S. The latter point is the SW extremity of a rocky mountain range which terminates in high cliffs on its NW side. Several fishing stations are situated along the shores of this bay, which provides anchorage to small craft with local knowledge.

A light is sometimes shown from a structure, 11m high, standing 2 miles ENE of Mys Yefremov-Kamen and a prominent beacon is situated 1.5 miles W of it.

Bukhta Sever (73°10'N., 80°23'E.), a cove, is entered between Mys Yefremov-Kamen and a point, 1.5 miles ESE. The shores of this cove are steep-to and have a number of projecting, rocky points. Depths of 12 to 14m lie in the central part of the cove and depths of 10m are found up to about 200m offshore. A reef extends up to about 0.2 mile W from the S entrance point and a fishing station is situated on the shore of the cove. Anchorage can be taken in the central part of the cove, but this roadstead is exposed to heavy surf sent in by SW winds.

5.41 **Bukhta Slobodskaya** (73°07'N., 80°25'E.) is entered between the S entrance point of Bukhta Sever and Mys Brazhnikova, 5 miles SSE. This bay has depths of 10m in the entrance and 6m about 1.5 miles from its head. Anchorage can be taken in the bay, but this roadstead is completely open to the W. A fishing station stands on the shore of the bay.

Below-water rocks lie within 0.4 mile W of Mys Brazhnikova and are clearly marked by breakers. A light is reported to be sometimes shown from a structure, 9m high, standing on the latter point. Mys Makarevicha is located 7 miles SE of Mys Brazhnikova; a light is reported to be sometimes shown from a structure standing about 3 miles SSE of it.

Banka Bolten (72°58'N., 80°51'E.), at times indicated by broken water, lies 7 miles SW of Mys Brazhnikova and is marked by a lighted buoy. This bank is steep-to, rocky, and has a least depth of 4.9m.

Kuznetsovskiy Light (72°42'N., 80°42'E.) is shown from a framework tower, 18m high, standing on the slope of a hill, 2 miles S of Mys Kuznetsovskiy. This tower is reported to stand out against the background hills, especially during autumn when the coast is covered with snow.

Bukhta Omulevaya (72°38'N., 80°46'E.) is entered between a point, located 7.5 miles S of Mys Kuznetsovskiy, and a point, 2 miles SSE. The N shore of this bay consists of several cliffy points, which are fronted by rocks, and should not be approached within 0.3 mile. A beacon stands 1 mile inland, 1 mile S of the S entrance point of the bay. Large vessels can anchor, in a depth of 9m, between the entrance points; small vessels can anchor, in a depth of 7m, in the middle of the bay.

Bukhta Kapitana Varzugina (72°33'N., 80°50'E.) is 1.5 miles wide at its entrance. Both entrance points of this bay consist of low, steep cliffs backed by hills. A reef extends up to 0.2 mile seaward from the S entrance point and should be given a wide berth. Vessels can anchor, in a depth of 11m,

about 0.6 mile SW of the N entrance point or, in a depth of 9m, about 0.5 mile NNE of the S entrance point. A prominent beacon stands 1.5 miles S of the S entrance point.

5.42 Ostrov Kuz'kin (Sibiryakova) (72°52'N., 79°08'E.) lies in the middle of the outer part of Yeniseyskiy Zaliv. The main channel leading to the entrance of Reka Yenisey passes between the E side of this island and the mainland. The entire island is low, sandy, and covered with tundra.

Banka Severnyy Sibiryakovskaya, a very shallow flat, extends about 9 miles N and NNW from the N end of Ostrov Kuz'kin. The N edge of this flat is steep-to, shoaling abruptly from a depth of 8m to depths of less than 0.6m. Vessels should not approach this flat within depths of less than 13m.

The NW side of Ostrov Kuz'kin is intersected by numerous streams. Beacons, equipped with radar reflectors, stand 7 and 13 miles SSW of the N extremity of the island. The E side of the island is also intersected by several streams. The SE side of the island is fronted by a series of sand spits and banks which dry and extend up to 2 miles offshore.

Lights are shown from structures standing on the NE and SE sides of the island. A beacon is situated on the E side of the island and a lighted buoy marks a shoal which fronts the SE end of the island.

Ostrov Nosok (73°12'N., 78°49'E.), an islet, lies 10 miles NW of the N extremity of Ostrov Kuz'kin. A light is shown from a structure, 17m high, standing 1 mile N of the S end of this islet. It is reported that a radiobeacon is situated at the light.

Proliv Ovtsyna (72°35'N., 78°52'E.) is entered from the NW, or seaward side, between the N extremity of Ostrov Oleniy and the SW extremity of Ostrov Kuz'kin. This strait has depths of 6 to 12m in the middle. Mys Leskin is located on the mainland at the SE side of the strait. A light is shown from a structure, 15m high, standing on a summit, 90m high, which rises close within the point. The N side of the strait is formed by the S side of Ostrov Kuz'kin.

Caution.—A sanctuary lies in an area, 1.5 miles wide, around Ostrov Nosok and Ostrov Kuz'kin (Sibiryakova). Any activity including hunting, fishing, tagging animals, and plant collection outside established tracks and landing places is prohibited, except for authorized vessels.

5.43 Reka Yenisey Estuary.—The fairway leading through the first 30 miles of the estuary has depths of 11 to 12.8m. The bar, which fronts the entrance of the river, has general depths of 7 to 7.9m, but a channel, with a least depth of 11m, leads close off the E side of the estuary, enabling deep-draft vessels to enter.

The ice in the estuary usually breaks up about the end of July, but the date varies considerably from year to year. The estuary usually freezes over about the middle of October, but, as with the breakup, the date varies. During the breakup, the water level may be raised as much as 4.9m.

Ostrov Krestovskiy (Poluektova) (72°26'N., 80°46'E.) lies parallel to the mainland with its N extremity located 1.8 miles SW of Mys Krestovskiy. A light is shown from a structure, 12m high, standing on a hill which rises near the N extremity of this island. A light is also shown from a structure standing on the S extremity of the island. The island consists of two parts joined by a narrow and sandy isthmus, on the E side of which lies a shallow rock-encumbered lagoon. A shoal patch, with a depth of 5.2m, lies close SW of the SW side of the N part of the island. A dangerous wreck, marked by a lighted buoy, is reported to lie about 5.5 miles W of the S extremity of the island.

Proliv Krestovskiy (72°23'N., 80°52'E.) lies between the E side of Ostrov Krestovskiy and the mainland. The fairway leading through the middle of this strait has depths of 22 to 27m. Large vessels can find shelter from all but N, NW, and S winds within this strait. The tidal currents in the strait are affected by the general N current induced by the outflow of Reka Yenisey and also by the direction and force of the wind.

Bukhta Shirokaya (72°24'N., 80°58'E.), a bay, lies 3 miles SE of Mys Krestovskiy and is frequented by small craft. Several fishing huts stand on the NW side of this bay. A light is shown from a structure, 8m high, standing close NE of the NW entrance point. Depths of 6 to 8m lie up to 1 mile offshore in the middle of the bay. Vessels can anchor, in depths of 5 to 6m, in the N part of the bay.

Ostrova Korsakovskiye (72°18'N., 81°00'E.), a group of islets and rocks, lies between 5 and 10 miles SSE of the S extremity of Ostrov Krestovskiy. Ostrov Bol'shoy Korsakovskiy, the largest islet of the group, consists of a rocky tundra-covered formation. A spar buoy is moored about 1 mile SE of the SE extremity of this islet. Beacons are reported to stand on the NW and SE extremities. A racon is reported to be situated at the NW beacon.

Ostrov Malyy Korsakovskiy, the highest and most conspicuous islet of the group, lies 3 miles SSE of Ostrov Bol'shoy Korsakovskiy and a rock, marked by a spar buoy, lies 1 mile SW of it. A bank, with a depth of 5.2m, lies about 4 miles W of this islet and is marked by a lighted buoy.

Mys Shaytanskiy (72°06'N., 82°16'E.) is located on the SE side of the estuary, 16 miles NNE of the river mouth. This point rises in steep cliffs and, from a distance, resembles an island due to the low and marshy plain extending to the E of it. A light is shown from a structure, 11m high, standing on this point.

From Mys Shaytanskiy, the coast trends SSE for 16 miles to Mys Sopochnaya Karga, the N entrance point of the river. A sand spit, with a depth of 7m over its extremity, extends SW for about 2.8 miles from the latter point and is marked by several buoys. A beacon, 10m high, stands on the point. A light, equipped with racon, is shown from a structure, 19m high, standing on a hill which rises 1 mile NNW of the point.

5.44 The SW coast of the river estuary trends ESE for 23 miles from Mys Leskin to Mys Peschanyy. The hills rising to the E of the former point gradually become lower and, about 4 miles from Mys Peschanyy, they recede inland, leaving a wide coastal belt of sandy ground. This section of the coast is fringed with sandbanks that make landing difficult. Several beacons, some lighted, stand along the shore.

Mys Peschanyy (72°05'N., 80°46'E.) is the NE extremity of a low and sandy plain. A sandy spit, on which numerous

buildings stand, extends about 4 miles S from the point. A light is shown from a structure, 18m high, standing 1 mile S of the point.

Mys Poyelovyy is located 17 miles SSE of Mys Peschanyy and a river discharges into an estuary close S of it.

Reka Poylos flows into the estuary via several branches which lie between 7 and 9 miles SE of Mys Poyelovyy. Only small craft, with local knowledge, can enter this river. A fishing cannery stands on the low sandhills in the vicinity of the entrance.

Mys Narzoy (71°46'N., 82°45'E.) is located 27 miles E of Mys Poyelovyy. A light is shown from a structure, 16m high, standing on this point. A buoy is moored about 4 miles NW of the point and marks the S side of the fairway channel.

5.45 Reka Yenisey (71°50'N., 82°35'E.) rises in the NW part of Mongolia and, after a course of about 2,500 miles, flows into Yeniseyskiy Zaliv between Mys Sopochnaya Karga and Mys Oshmarino. For about 1,000 miles upstream from the entrance, the river is about 3 miles wide. For the next 1,000 miles, it is then only about 1 mile wide.

Depths—Limitations.—Ocean-going vessels, with drafts of up to 7.3m, can generally reach Igarka, a river port, which lies 380 miles from the entrance. The open navigation season at this port, a fairly ice-free period, lasts from July to November and is usually 14 to 16 weeks long. Icebreaker support is available if required.

The port of Dudinka may remain accessible to vessels all year round depending upon the weather conditions and icebreaker support.

A vessel, with a speed of 11 knots, will usually take 36 hours to transit from Ostrov Dikson to Dudinka, but less time for the downriver passage. From Dudinka to Igarka, the passage normally requires 24 hours, but the transit down river only takes about 12 hours.

Aspect.—The various reaches of the river are marked by lights, ranges, and beacons which are moved as necessary to meet changes in the fairway.

Pilotage.—Pilotage is compulsory and is available 24 hours during the navigation season. A river service is available for the ports of Dudinka and Igarka.

Pilots can be contacted on VHF channel 16 and usually board in an area lying off **Mys Oshmarino** (71°46'N., 82°56'E.). Two pilots are required and they change over off **Ust'-Port** (69°40'N., 84°25'E.), without stopping.

Vessels proceeding into the river must send an ETA and a request for pilotage 48 hours in advance with a confirmation 6 hours before arrival. These messages must be sent through the nearest coast radio station to the pilot vessel and the harbormaster at Igarka (see paragraph 5.49).

With strong NW or SE winds, it is difficult for the pilots to board. Therefore, vessels may be required to anchor and wait for a more favorable time or to follow the directions of the pilot vessel. During autumn, pilotage is not carried out on all reaches of the river at night and, in such cases, vessels must anchor for the night as directed by the pilots.

Anchorage.—Deep-draft vessels, with a large turning radius, should anchor in the outer roads, N of Ostrova Oleniy. Such vessels may anchor, in depths of 10 to 13m, keeping clear of the range lines.

Vessels, with drafts of up to 9m, can proceed into the inner roads and anchor, in depths of 12 to 13m, between 0.5 and 0.8 mile SE or SSE of Ostrov Konus. Such vessels should take care to avoid a rocky shoal patch, with a depth of 7m, which extends 0.3 mile S and SE from the islet. Good anchorage can also be taken, in depths of 7 to 12m, mud and stone, SW and NW of Ostrov Sever, but not closer than 0.2 mile from this islet nor closer than 0.3 mile from Ostrov Dikson.

5.46 Mys Oshmarino (71°46'N., 82°58'E.), the SE entrance point of Reka Yenisey, is located 7.5 miles SE of Mys Sopochnaya Karga. This point is backed by a sandy plain, on the N side of which stands a village with several prominent structures. A prominent beacon stands 0.2 mile SSE of it.

Yenisey Gorlo, the lowest reach of Reka Yenisey, extends from the river entrance to Mys Dorofeyevskiy, 22 miles upstream. Both shores of this reach are high and consist mainly of clay hills. They are intersected by numerous rivulets with low, marshy ground at their outlets.

Off **Mys Mezenina** (71°30'N., 83°27'E.), the river current usually attains a rate of about 0.5 knot. In the narrows off Mys Zverevskiy, 15 miles NNW of Mys Mezenina, the current may attain rates of 1.5 to 2 knots. With certain wind directions, the tidal current often completely checks the normal river current.

Gol'chikha (71°43'N., 82°30'E.), a trading post and settlement, is situated 17 miles SE of Mys Sopochnaya Karga, at the SW entrance to Reka Gol'chikha. This settlement consists of several buildings and cabins. Vessels can anchor abreast the settlement, in a depth of 20m, about 0.5 mile offshore or, in a depth of 33m, about 1 mile offshore. However, this roadstead is exposed and the sea is very choppy at times. A lighted range indicates the approach to the anchorage area.

Caution.—Vessels navigating the river without local knowledge should not proceed above the settlement of Gol'chikha.

5.47 Ust'-Port (69°40'N., 84°26'E.) lies at the E side of Reka Yenisey, 163 miles above the entrance. The harbor area consists of an almost landlocked channel, 0.5 mile wide, lying between the E bank of the river and a sandy island. A small wharf fronts the settlement and transhipment of cargo is carried out by barge. The fairway of the harbor channel has depths of 9 to 11m over a bottom of mud and sand, but isolated patches, with depths of less than 6m, are reported to lie in the approach. This port forms the summer headquarters of the river pilotage service. Vessels transiting the river change pilots off this port without stopping.

Caution.—A submarine gas pipeline area has been placed in the river S of Ust'-Port and is bounded on the N side by lines joining the following positions:

a. 69°30'30"N, 85°52'30"E.
b. 69°30'54"N, 85°53'33"E.
c. 69°31'35"N, 85°55'22"E.

and on the S side by lines joining the following positions:

a. 69°28'39"N, 85°59'10"E.

b. 69°29’30”N, 86°00’48”E.

5.48 Dudinka (69°24'N., 86°10'E.) (World Port Index No. 62720), a port in northeastern Siberia, exports bulk coal, cobalt, copper, nickel, and petroleum products. Dudinka lies on the E side of the river, 185 miles above the entrance.

Ice.—Icebreakers generally keep the port open almost all year round for traffic transiting to and from Murmansk.

Depths—Limitations.—The harbor has depths which are subject to silting and vary from year to year. The fairway channels, which lead through the river approaches, limit the size of vessels that can enter. For further information see the table titled **Dudinka—Berth Information**.

Dudinka—Berth Information			
Berth	**Length**	**Depth**	**Remarks**
Cargo 1	—	—	General cargo and containers.
Cargo 2	875m	—	General cargo and containers.
Oil Berth	66m	3.6m	—
Sea VLS Oil Berth	210m	10.4m	Oil products.

Pilotage.—Pilotage is compulsory. Pilots will board, as follows:

1. Position 69°25.5’N, 86°07.6’E.
2. Position 69°28.4’N, 86°02.6’E.
3. Vessels sailing for Igarka—69°21.4’N, 86°05.4’E

Regulations.—The vessel’s ETA should be sent 72 hours prior to arrival and confirmed 24 hours in advance.

Contact Information.—See the table titled **Dudinka—Contact Information**.

Dudinka—Contact Information	
Dispatcher	
Call sign	More-port
VHF	VHF channels 14 and 16
Port Authority	
Telephone	7-391-115-6545
Facsimile	7-391-112-5874
Harbormaster	
Call sign	Port Control
VHF	VHF channels 16 and 17
Telephone	7-391-915-7210
Facsimile	7-391-915-6212
E-mail	dudinkasvf09@rambler.ru
Petroleum Depot	
Call sign	NPS R-76
VHF	VHF channels 2 and 5
Border Control	
Call sign	Zastava
VHF	VHF channels 13 and 16
Pilots	
Call sign	Pilot’s Watch
VHF	VHF channels 9 and 16
Note.—All stations operate 24 hours.	

Caution.—The port is generally congested with shipping during the ice break-up period in late June or early July. Ice jams occur on the river at this time and cause the harbor to be flooded, necessitating the cargo-handling equipment to be temporarily moved to higher ground.

5.49 Igarka (67°29'N., 86°36'E.) (World Port Index No. 62730) lies on the E bank of Reka Yenisey about 370 miles upriver and is a center for the export of lumber. This is the only port in this area that is open to foreign shipping.

The port is open for navigation from July through October. Generally, ice begins to form about the middle of October. There is no tidal range within the port.

Normally, a vessel arriving will be required to anchor in the outer roads, in a position advised by the pilot. In the case of bad weather or main engine failure, a vessel will be required to anchor; the pilot will provide all necessary information about the designated berth.

Ice.—The port is open to navigation from July to mid-November.

Depths—Limitations.—Approach to the port consists of a channel, 6 miles long, with depths of up to 18m and steep-to banks.

Four berths for handling timber lie on the mainland opposite the anchorage berths. Depths alongside are 9.1m at the cargo pier and 12.2m at the oil terminal.

Pilotage.—Pilotage is compulsory for Reka Yenisey and for all berthing and mooring operations.

Pilots are available 24 hours and there will normally be two pilots assigned per vessel.

The pilot boarding ground is in position 71º42'N, 83º30'E near Buoy 4. Masters of vessels approaching from seaward have to order pilots through the Chief of Igarka Hidrobase and the Pilot Master 48 hours prior to arrival at the pilot boarding station. In bad weather, the pilots will board the vessel at a place directed by the Pilot Master. After navigating the river, vessels will normally be required to anchor in the outer roads.

This request may be coordinated through INFLOT.

Regulations.—The use of tugs is compulsory for all berthing and mooring operations.

Igarka—Contact Information	
Port Authority	
Telephone	7-391-122-1316
Port Controller	
VHF	VHF channels 12 and 16
Pilots	

Igarka—Contact Information	
VHF	VHF channel 16
Harbormaster	
VHF	VHF channel 14
Note.—All stations operate 24 hours.	

Contact Information.—See the table titled **Igarka—Contact Information**.

Anchorage.—Designated anchorage for deep draft vessels is located in the outer roads, in depths of 11 to 22m. Information on the best place to anchor can be obtained from the pilot vessel or the pilot.

5.50 Krasnoyarsk (56°08'N., 93°00'E.) lies 1,500 miles above the river entrance and can be reached by barges and small craft of up to 3,500 dwt and 2.7m draft. This town connects the river traffic with the trans-Siberian railroad.

Additional chart coverage may be found in NGA/DLIS Catalog of Maps, Charts, and Related Products (Unlimited Distribution).

Sector 6 — CHART INFORMATION

Sector 6
The Kara Sea—Southeast and Northeast Shores

Plan.—This sector describes the coast extending along the NE portion of the Kara Sea, between Mys Severo-Vostochnyy and Mys Chelyuskin. The sector also covers the off-lying islands and straits located in the NE part of the Kara Sea and in the vicinity of Severnaya Zemlya.

General Remarks

6.1 The coast between Mys Severo-Vostochnyy and Mys Chelyuskin, 440 miles NE, trends very irregularly and is covered with tundra. It forms the NW side of Poluostrov Taymyr, the northernmost projection of the Russian mainland. A succession of bays and inlets indent this coastal section and are separated by hilly or mountainous peninsulas and capes. The largest of these indentations is Pyasinskiy Zaliv, which lies close E of Mys Severo-Vostochnyy.

The main track of the North Sea Route, between Mys Severo-Vostochnyy and Proliv Vil'kitskogo, passes between the southernmost of the off-lying islands and several groups of islands fringing the coast. Except for an occasional polar station, this region is unpopulated and without ports. Several sheltered anchorages have been examined by Russian survey vessels.

With the exception of survey vessels and local fishing craft, the only vessels that proceed along this coast are those traversing the North Sea Route. These vessels normally enter the Kara Sea from the SW by way of Proliv Matochkin Shar, Proliv Karskiye Vorota, or Proliv Yugorskiy Shar, rather than around the N end of Novaya Zemlya.

The Kara Sea bordering the section of coast described in this sector has been fairly well surveyed except for shallow areas, which front the mainland coast, and the off-lying islands. Extreme caution is necessary as numerous submerged rocks and reefs lie in this area.

Freezing usually begins around the middle of September and the thaw begins near the end of May. There is a greater probability of the season extending to the beginning of October than of its commencing before August.

Winds—Weather.—From May to August, winds in the Kara Sea are rather variable. Winds from the N and NE predominate along most of the coast, especially in July and August. From October to March, winds from the S prevail in many parts. These winds are principally from between S and SW in the W part of the sea and from between SE and S in the E part. The winds are rather variable in September and October and also in the months of March and April.

A vessel navigating off Mys Chelyuskin from September 1918 to September 1919 reported that disturbances were observed in the form of troughs of low pressure with marked cold fronts. During such cases, the wind shifted from the SW, with falling pressure and rising temperatures, to the NE, with rising pressure and falling temperatures.

In the Laptev Sea, the winds along most parts of the coast are principally from the NE quadrant between May and August and from between SW and W during the remainder of the year. Some variation in the directions of the prevailing winds is caused by changes in the trend of the coast.

Freezing usually begins around the middle of September and the thaw begins near the end of May. Navigation in the NE part of the Kara Sea usually commences about the beginning of August and lasts until the middle of September. There is a greater probability of the season extending to the beginning of October than of it commencing before August.

Ice.—Distribution of ice throughout this area depends entirely upon the winds. The island groups fronting Kharitona Lapteva Bereg, and often Stamukhi, block the ice brought in by W winds, leaving a narrow strip of open water for passage along the coast. Large masses of heavy ice often concentrate in Arkhipelag Nordenshel'da and sometimes form a barrier. In some years, the most navigable route has been through the inner passage along the mainland coast. The average maximum thickness of the ice in this part of the Kara Sea is 0.9 to 1.5m.

Regulations.—For information on the Northern Sea Route, see paragraph 1.2.

Caution.—Due to the lack of reliable information, radio navigational aids on the Russian Arctic coast and adjacent islands, from the E side of Novaya Zemlya to the Bering Strait, are being omitted from charts and publications. Therefore, the information concerning radiobeacons included in the following text is provided strictly as a general guide based on past information.

The **Great Arctic Nature Reserve** is located in the Kara Sea and is enclosed by the following islands:

1. Ostrov Svedrupa (74°34'N., 79°25'E.).
2. Ostrov Arktichescogo Instituta (75°18'N., 82°00'E.).
3. Ostrov Isvesti Tslk (75°56'N., 82°30'E.).
4. Ostrov Sergeya Kirova (77°10'N., 89°30'E.).
5. Ostrov Uyedineniya (77°30'N., 89°20'E.).
6. Ostrov Voronina (78°10'N., 93°40'E.).

Within the reserve vessels are prohibited from engaging in commercial fishing for fish and other marine products or to engage in prospecting and investigation operations. In exceptional cases during storms, vessels may obtain shelter in the waters contained within the reserve.

Ostrov Sibiryakova Sanctuary, located in the S part of the Kara Sea, is an area extending 1.5 miles from the coasts of Ostrov Sibiyakova (72°55'N., 79°05'E.) and Ostrov Nosok (73°12'N., 78°49'E.), including Otmel Severnaya and Otmel Yuzhnaya Sibiryakovskaya (72°40'N., 79°39'E.). Within the sanctuary vessels are prohibited from engaging in commercial fishing for fish and other marine products or to engage in prospecting and investigation operations. In exceptional cases during storms, vessels may obtain shelter in the waters contained within the sanctuary.

Any activity, including hunting, fishing, tagging animals, plant collection, sailing, landing, except for authorized hydrographic vessels and those engaged in serving the sanctuary, and the sounding of signals, is prohibited in the following sanctuaries:

1. In the SE portion of the Kara Sea:
   a. Ostrova-Skott-Gansena (75°17'N., 86°19'E.).
   b. Ostrov Ringnesa (75°38'N., 88°00'E.) and Ostrova Mona (75°41'N., 88°45'E.).
   c. Ostrova Zveroboy (74°10'N., 85°40'E.).
   d. Ostrova Plavnikovyy (74°26'N., 85°00'E.) except for Ostrov Pestsovyy (74°31'N., 86°00'E.).
   e. Bereg Kharitona Lapteva between position 75°07'N, 88°08'E and position 75°31'N, 90°00'E and surrounding Ostrova Tillo (75°32'N., 89°36'E.) and Ostrov Kaminskiy (75°36'N., 89°53'E.).
   f. Ostrov Garilova (75°59'N., 92°39'E.) and Ostrov Pervomayskiy, 1.25 miles S, and Ostrov Rykacheva (75°51'N., 92°50'E) and Ostrova Yarzhinskogo, 1 mile S.
   g. Zaliv Taymyrskiy (76°15'N., 97°30'E.) and the islands situated within it.
   h. Ostrova Vostochnyye (76°44'N., 97°30'E.).
   i. Ostrova Firnleya (77°11'N., 100°27'E.) and Ostrovok Lishniy (76°55'N., 100°27'E.).
   j. Ostrova Geyberga (77°38'N., 101°36'E.) and Ostrov Gellanda Gansena (77°30'N., 102°32'E.).
2. Ostrova Severnaya Zemlya:
   a. Ostrov Domashniy (79°30'N., 91°03'E).
   b. Poluostrov Parizhskoy Kommuny (79°30'N., 93°30'E.), the waters of the gulfs and bays adjacent to it, and that part of Ostrov Oktyabrskoy Revolyutsii bounded on the E by longitude 94°45'E and on the S by latitude 79°26'N.
   c. Ford Matusevicha (80°00'N., 98°20'E.).
3. West part of East Siberian Sea-Novosibirskiye Ostrova (75°00'N., 145°00'E.).

Mys Severo-Vostochnyy to Mys Rybnyy

6.2 Mys Severo-Vostochnyy (73°33'N., 80°32'E.), the SW entrance point of Pyasinskiy Zaliv, is located 4.5 miles ENE of the N extremity of Ostrov Dikson. This point is low and not very conspicuous. It is formed of rock strata, with earth hillocks in places, and is covered with tundra. Ostrova Severo-Vostochnyy, lying off the point, consists of three distinct groups of islets and rocks. Vessels, without local knowledge, should not approach any of these islets closer than 1.5 miles because of the numerous rocks lying off them. A light is shown from a structure, 12m high, standing on the northernmost islet. It is reported that a lighted beacon stands on the southernmost islet.

Shoals, with depths of 15 and 14m, lie 20 and 30 miles, respectively, NE of Mys Severo-Vostochnyy. A shoal patch (existence doubtful), with a depth of 12m, is reported to lie about 4 miles NW of the 15m shoal.

6.3 Mys Polyn'ya (73°35'N., 81°05'E.) is located 9.5 miles ENE of Mys Severo-Vostochnyy. A framework beacon, 14m high, stands on the point. A cove, with a depth of 11m in its entrance, lies close S of the beacon. The depths gradually decrease to 3.7m at the head.

Mys Dvukh Medvedey, located 12 miles ENE of Mys Polyn'ya, consists of a projection with two spurs, between which stand two prominent rocky ridges. Reka Uboynaya flows into Pyasinskiy Zaliv, 8 miles E of this point. The river entrance is marked by a beacon which stands near a log house on the W side of the mouth.

Reka Novo-Morzhevo (73°40'N., 83°52'E.) flows through a narrow valley, with steep cliffs, before entering the sea. Its mouth has an alluvial spit on the W side which separates a small lagoon from the sea. A hut, visible from 5 miles, was reported to stand on the spit, near the mouth of the river.

Mys Morzhevois is located 17 miles ENE of the mouth of Reka Novo-Morzhevo and is fronted by a bank with depths of less than 9m.

6.4 Mys Zveroboy (73°48'N., 85°34'E.), a rugged point, is fringed by reefs and foul ground which extend up to 0.5 mile offshore. It is located 13 miles E of Mys Morzhevo and surmounted by a prominent beacon, 12m high.

From Mys Zveroboy, the S shore of Pyasinskiy Zaliv trends ENE for 21.5 miles to Mys Vkhodnoy. The coast is low and shelving and its E side is fronted by a spit (Ostrov Begichevskaya Kosa). This spit, of which large portions dry at times, is separated from the mainland by a narrow channel which leads to the entrance of Reka Pyasina and is used by local fishing vessels. A beacon stands on the NE part of the spit, 3.5 miles SE of its N extremity.

Mys Rybnyy (74°20'N., 85°54'E.) is the W termination of a peninsula which extends W from the mainland. A prominent beacon, 9m high, stands on the point. The depths lying close offshore, on this side of Pyasinskiy Zaliv, decrease gradually from off Mys Rybnyy to the delta off Reka Pyasina.

Off-lying Islands and Dangers

6.5 Ostrov Sverdrup (74°35'N., 79°25'E.), lying 60 miles N of Mys Severo-Vostochnyy, is flat, sandy, and rises to an elevation of 30m in its SW part. The area in the vicinity of this island has not been completely examined and vessels should approach with great caution. A beacon, formed by an iron post surrounded by a cairn, is reported to stand on high ground at the SW side of the island.

A local magnetic anomaly has been reported to exist about 20 miles NW of the island.

The following depths have been reported with the positions given from the light:

a. 12 m at 24 miles NW.
b. 8.8m at 52 miles NNW.
c. 0.3m at 7 miles ESE.
d. 3.6m at 9 miles ESE.
e. 6.4m at 12 miles S.

Generally, depths of less than 18m have been reported to lie within 28 miles N, 11 miles NE, 13 miles ESE, 15 miles S, and 6 miles W of the island.

Caution.—An area, 1.5 miles wide, surrounding Ostrov Sverdrup is prohibited to all persons except those carrying out navigation safety duties or serving the sanctuary.

6.6 Ostrova Arkticheskogo Instituta (75°20'N., 82°00'E.), a group of islands extending 27 miles in a N/S direction, lies with Ostrov Sidorova, the southernmost island, located 50 miles NE of Ostrov Sverdrup. A light is shown from a framework tower, 11m high, standing near the S extremity of this island.

A prominent sand hill stands on the W side of the group, 18 miles NNW of the S extremity of Ostrov Sidorova. A shoal bank, with depths of less than 11m, extends about 14 miles S from the S extremity of Ostrov Sidorova. A shoal patch, with a least depth of 11m, lies about 17 miles SSE of Ostrov Sidorova and an isolated depth of 8.8m lies about 4 miles NE of it.

Ostrova Izvestiy Tsik (75°57'N., 82°37'E.), a large group of islands and islets, lies between 18 and 28 miles N of Ostrova Arkticheskogo Instituta and extends for 24 miles in an E/W direction. The formation consists of slate with patches of tundra. A shoal, with a depth of 4.6m, lies about 17 miles NNE of the E extremity of the group. Ostrov Gavrilina is the southwesternmost island of the group. A shoal patch (position doubtful) has been reported to lie about 8 miles WNW of the beacon. Another beacon, 6m high, stands on the SE end of the largest island of the group. A bank, with depths of less than 11m, extends about 2 miles S from the island and an isolated depth of 12.2m has been reported to lie 3.5 miles E of the beacon.

Ostrov Uyedineniya (Uedineniya) (77°30'N., 82°20'E.) lies about 90 miles N of Ostrova Izvestiy Tsik. Depths in the approaches to this island are irregular. It is reported that an icebreaker anchored, in a depth of 9m, about 1.5 miles SW of the island, good holding ground.

Caution.—An area, 1.5 miles wide, surrounding Ostrova Izvestiy is prohibited to all persons except those carrying out navigation safety duties or serving the sanctuary.

A local magnetic anomaly was reported to exist about 45 miles WSW of Ostrov Uyedineniya.

Ostrova Sergeya Kirova

6.7 Ostrova Sergeya Kirova (77°15'N., 89°30'E.), consisting of a group of islands and islets, lies centered about 100 miles ESE of Ostrov Uyedineniya.

Ostrov Slozhnyy (77°05'N., 88°50'E.), the southwesternmost island of the group, is 8 miles long and 28m high in its S part. Its outline is extremely irregular. Two beacons are reported to stand on this island.

Ostrov Isachenko (77°13'N., 89°22'E.), lies 14 miles NE of Ostrov Slozhnyy. The channel leading between these islands is presumed to be shallow because of grounded ice which has been observed in it. A ridge, 50m high, extends across the island. A beacon was reported to stand on a dark-colored summit at the inner end of a sand spit which extends SE from the SW extremity of the island.

Ostrov Yuzhnyy, Ostrov Sredniy, and Ostrov Severnyy, three very low islands, lie 7 miles SE of Ostrov Isachenko, but are difficult to identify.

Ostrov Kirova (77°38'N., 92°00'E.) lies 36 miles NE of Ostrov Isachenko. A hill, rising near the NW end of this island, is prominent from the SW. Lagoons lie on the S and E sides of the island. Depths in the N and NE approaches to the island are unknown.

Ostrov Voronina (78°12'N., 93°50'E.), 12m high, lies 38 miles NNE of Ostrov Kirova. This island is composed of sand and mostly covered with dark lichens.

Caution.—An area, 1.5 miles wide, surrounding Ostrov Kirova and Ostrova Voronina is prohibited to all persons except those carrying out navigation safety duties or serving the sanctuary.

A similar prohibited area lies within an area bounded by lines joining the following positions:

a. 76°57.5'N, 88°45.0'E.
b. 77°19.5'N, 89°20.0'E.
c. 77°12.0'N, 89°50.0'E.
d. 77°06.5'N, 88°36.0'E.
e. 76°57.2'N, 89°52.0'E.

Pyasinskiy Zaliv—North Side

6.8 Ostrov Zapadnny Kamennyy (74°06'N., 82°38'E.) is the westernmost island of a group of islands, islets, and rocks which form the N side of Pyasinskiy Zaliv. This island lies 44 miles NE of Mys Severo-Vostochnyy and a beacon stands on a hill, 172m high, which rises in its N part.

Ostrov Vostochnyy Kamennyy, fronted by sand banks, lies 2 miles E of Ostrov Zapadnnyy Kamennyy. This island, which slopes to the N and S, is composed of hilly tundra with rocks and boulders. A beacon is reported to stand on the SW side of this island.

Ostrov Rastorguyeva (74°00'N., 84°10'E.) lies 6 miles ESE of Ostrov Vostochnyy Kamennyy and consists of two rounded hills joined by a low, marshy neck of land. The channel leading between these two islands has depths of more than 9m in the fairway, but has not been fully examined. A beacon stands on the W summit, which is 108m high, of the island. Vessels can anchor, in depths of 5 to 6m, fine sand, about 0.3 mile off the S end of the low part of the island and E of the rocky shelf which extends S from it. Vessels should steer for a position lying 6 miles S of the island before shaping a N course for the anchorage.

Ostrova Dolgiye, a group of low islets and rocks, extends 1 mile N and 10 miles E from the N end of Ostrov Rastorgueva. A beacon stands on the summit of the easternmost islet. Numerous dangers lie in the vicinity of this group.

Ostrov Proklyatyy (74°10'N., 84°46'E.), surmounted by a beacon, lies 8.5 miles N of Ostrov Dolgiy. This islet is 67m high and a reef extends about 1.2 miles E from it. Due to numerous sunken dangers, vessels should not approach within 3 miles of this islet. Shoals, with depths of 3.7 and 1.2m, lie 3.5 miles SW and 1.5 miles ESE, respectively, of the islet. An above-water rock is reported to lie 3.5 miles S the islet.

Ostrov Morzhevoy (73°51'N., 84°38'E.) lies 7 miles SE of the SE extremity of Ostrov Rastorgueva. The W and S sides of this islet are formed by cliffs, 30 to 40m high. Several coves indent the N and E sides of the islet and provide anchorage for small craft with local knowledge. A beacon, 10m high, stands on the summit of the islet.

Ostrov Zveroboy (74°10'N., 85°40'E.), shaped like a horseshoe, lies 10.5 miles NE of Ostrov Dolgiy. A bay indents the W side of this island and a cove lies at its head. The cove affords shelter to small craft with local knowledge, but W winds send a heavy sea into it. Numerous islets, reefs, and above-water rocks lie within 3 miles of the island.

Shkhery Minina

6.9 Shkhery Minina is formed by an extensive archipelago lying off the mainland between Mys Rybnyy and Poluostrov Mikhalova, 50 miles NNE. This archipelago extends W to the meridian of 84°12'E and consists of three main groups of islands.

The S group, known as Ostrova Plavnikovye, lies W of the entrance to Zaliv Minina; the central group lies NW of Poluostrov Minina; and the N group lies between Poluostrov Minina and Poluostrov Mikhalova. The mainland coast in this vicinity is indented by numerous bays and inlets. The archipelago is a very rich hunting and fishing area.

In recent years, extensive surveying operations have been undertaken in this vicinity. The whole of the archipelago and practically the whole of the mainland to the E of it have now been examined. However, the various channels lying between the islands have not yet been closely examined and great caution is necessary when navigating within them.

Caution.—A local magnetic anomaly, with variations of 27° to 32°, has been reported in the vicinity of the archipelago.

6.10 Ostrov Baranova (74°24'N., 84°18'E.), lying 24 miles N of Ostrov Rasturguyeva, is 2 miles long and 0.5 mile wide. This island is rugged with bold, rocky coasts and a beacon stands near its SE end. Vessels should give this island a wide berth as the depths in the vicinity are very irregular. A light is shown from a structure, 11m high, standing on the S side of the island.

An islet, with a dangerous rock located 1 mile S of it, is reported to lie about 2 miles S of Ostrov Baranova. Several sunken rocks lie between this islet and the S side of the island. Shoals are reported to lie 5.2 miles S and SSE of Ostrov Baranova. Rocky patches, with depths of 3.4 and 3m, lie 6 miles SE and 4 miles WNW, respectively, of the S end of Ostrov Baranova.

Ostrov Podkova, lying 2 miles E of Ostrov Baranova, consists of two hilly parts which are joined at their W ends by a shingle ridge. A light is shown from a structure, 7m high, standing at an elevation of 52m in the middle of the NE part of the island. Bukhta Podkova, open to the SE, is the bay which lies between the two parts of the island. It is 2.8 miles wide at the entrance and narrows to 1 mile at the head. Vessels of any size can anchor in this bay, sheltered from all winds. The bay has a depth of 20m in the middle of the entrance and gradually shoals to a depth of 5m about 200m from its head.

6.11 Ostrova Gol'tsman (74°20'N., 85°10'E.), a group consisting of two principal islands and five skerries, lies between 4.8 and 10 miles SE of the SE extremity of Ostrov Podkova. Ostrov Zapadnyy Gol'tsman, the W island, is marked by a beacon. Ostrov Bol'shoy Gol'tsman, the E island, lies 0.5 mile E of Ostrov Zapadnyy Gol'tsman and is formed by two hills joined by a narrow shingle isthmus.

Anchorage, with good shelter from winds from between NW and NE, can be taken by small craft, in a depth of 4m, within a bight lying E of the isthmus. Anchorage, with shelter from SE winds, can be taken, in depths of 10 to 14m, mud, in the entrance of a bight lying on the W side of the isthmus.

Two skerries, each 9m high, stand 1.8 miles NNE of Ostrov Zapadnyy Gol'tsman. The other three skerries, joined by a shingle ridge, stand on a bank within 1 mile of the E extremity of Ostrov Bol'shoy Gol'tsman.

Ostrov Yuzhnyy Zarzar (74°21'N., 85°10'E.), the southernmost of two islands which form Ostrova Zarzar, lies 1.5 miles N of Ostrov Bol'shoy Gol'tsman. It is composed of granite and 30m high. Ostrov Severnyy Zarzar, the N island, lies 1 mile N of this island. It is covered with tundra and faced by rocky cliffs. The channel lying between these two islands has depths of 11 to 20m in the fairway and is clear of dangers. A shoal, with a depth of 4m, is reported to lie about 2 miles W of the W extremity of Ostrov Severnyy Zarzar.

6.12 Ostrov Kosterina (74°25'N., 85°26'E.) is separated from the SW side of Ostrov Severnyy Zarzar by Proliv Dubravina. The island is faced by steep cliffs, except for two coves which indent its SW side. Proliv Dubravina, with a minimum width of 1.8 miles, has depths of 20 to 26m in the fairway which lies close to the N side of Ostrov Severnyy Zarzar. A shoal, with a depth of 9.7m, lies in the SE approach to the fairway, about 3.5 miles ESE of the E extremity of Ostrov Severnyy Zarzar.

Ostrova Rybnyye (Rybnye), a group of four islets, lies between 4 and 5.2 miles ESE of Ostrov Vostochnyy Gol'tsman and 6 miles WSW of Mys Rybnyy. The islets are partly covered with tundra.

Ostrova Malye Plavnikovyye (74°21'N., 85°42'E.), a group of rugged islets, lies 4 miles NNE of Ostrova Rybnyye. A rocky ledge, with depths of less than 5.5m, extends about 0.8 mile E from this group. A shoal, with a depth of 3m, is reported to lie about 2.5 miles WSW of the group.

Ostrov Severnyy Plavnikovyy (74°32'N., 84°50'E.) lies with its SW extremity located close N of the NE part of Ostrov Podkova. A narrow channel, which is encumbered with rocks, separates the two islands. The fairway leading through this channel is 0.3 mile wide and has a least depth of 7.6m. A pyramid beacon, 15m high, stands at an elevation of 49m in the center of the island. A sunken flat is reported to extend an unknown distance NE and E from the NE end of the island.

Ostrov Vardroper (Wardroper) (74°39'N., 84°10'E.) lies 10 miles N of Ostrov Baranova. This island is composed of granite and rises to three hills, each 20m high, which are

separated by deep valleys. A bight indents the E side of the island, but it has not been examined. A light is shown from a structure, 13m high, standing on the W side of the N part of the island.

6.13 Ostrov Kruglyy (74°33'N., 85°20'E.), 60m high, lies E of Ostrov Severnyy Plavnikovyy and N of Ostrov Kosterina. An islet lies close off the N side of this island. An extensive shoal, with a least depth of 2.7m, lies between about 3 and 5 miles N of the N extremity of the island.

The passage leading between Ostrov Kruglyy and Ostrov Kosterina is obstructed by sunken flats and should not be attempted.

Ostrov Granitnyy, 37m high and faced by sheer cliffs, lies NE of Ostrov Kruglyy. The channel separating these islands is 0.8 mile wide, but has not been examined.

Ostrov Pestsovyy (74°31'N., 86°00'E.), 40m high, lies E of Ostrov Kruglyy in the entrance to Zaliv Minina. This large island is mostly hilly, but its SW part is low and its SE coast is marshy in places. The W and N sides of the island are reported to be bold.

Zaliv Minina (74°30'N., 86°30'E.) is entered between Mys Rybnyy and Mys Meduz, 16.5 miles N. Two navigable channels lead into this basin. One channel, which passes S of Ostrov Pestsovyy, is about 3 miles wide and has a least depth of 4.3m. The other channel, which passes N of the island, is narrow, but deep. Most of the basin has regular depths of 10 to 16m, but depths of less than 5.5m have been reported to lie up to about 1.2 miles from the SE side of Ostrov Pestsovyy.

6.14 Ostrov Oleniy, the southwesternmost and largest island of the central group of Shkhery Minina, lies 10 miles N of Ostrov Kruglyy. A steep-sided valley crosses this island, from SE to NW, and divides it into two parts. The gap formed by this valley provides a good landmark from the NW and N. The coasts of the island are bold and very indented. Several above-water rocks lie off the W side of the island. A light is shown from a tower, 14m high, standing on the W extremity of the island.

Ostrova Diabazovyye (74°51'N., 85°07'E.), consisting of two islets lying close together, is centered 7 miles N of the W extremity of Ostrov Oleniy and forms the outermost part of Shkhery Minina. Sandy spits, the outer parts of which are below-water, extend from the N and SE extremities of the NE islet. A shoal, with depths of less than 9m, extends up to about 0.8 mile NW from these islets. A light is shown from a structure, 9m high, standing on the N extremity of the NE islet. A beacon stands in the middle of the SW islet.

Ostrov Dlinnyy lies with its W extremity located 5 miles E of the NE islet of Ostrova Diabazovyye. This island consists of two parts joined by a neck of sand and shingle. A shoal, with a depth of 2.7m over its outer part, extends about 1.5 miles E from the E end of the island.

Ostrov Mysovoy lies 2 miles S of Ostrov Dlinnyy. A shoal, with a depth of 3.9m over its outer part, extends about 1.2 miles SE from the island and an above-water rock stands on its inner part.

6.15 Ostrov Torosovyy (74°54'N., 85°55'E.), with steep sides, lies 4.5 miles ENE of Ostrov Dlinnyy. An above-water rock lies close N of this island and is joined to it by a sand spit.

A local abnormal magnetic anomaly has been reported to occur 1 to 2 miles N of this island.

Ostrov Tsirkulyaforms the N side of Bukhta Minina and lies 1.2 miles SSW of Ostrov Torosovyy. The S part of this island rises to three craggy summits, the middle one of which is surmounted by a beacon.

Bukhta Minina can be approached from the SW by a channel which lies SE of Ostrov Oleniy. It can also be approached from the NW by a channel which passes NE of the same island. A shoal, with depths of less than 9m, extends about 2.2 miles SE into the bay from the S side of Ostrov Tsirkulya. An almost landlocked area, which provides safe anchorage, lies between the SE edge of this shoal and the SE and E sides of Bukhta Minina. It is about 1 mile wide and has depths of 13 to 15m.

Gora Minina (74°43'N., 86°16'E.) consists of a ridge which runs in a SW/NE direction. Its summit, 145m high, rises at the NE end of the ridge, 6.8 miles E of Mys Minina. Dark-colored rocks, which show up well against the tundra background, stand on this summit and form the best landmark in the vicinity.

6.16 Ostrov Kolosovykh (74°53'N., 86°38'E.), the largest island in the northernmost group of Shkhery Minina, lies 5.5 miles ENE of Ostrov Torosovyy and is 14 miles long and 12.2 miles wide. It is divided into two parts by Bukhta Medvezh'ya, which deeply indents the NW side, and by Bukhta Trekho Ostrovov, which indents the SE side. The heads of these two inlets are separated by a narrow isthmus, only 0.5 mile wide. Ostrov Nerpichey, 50m high, lies S of the SW part of this island and is covered, in places, with tundra.

The straits lying S of Ostrov Kolosovyka have not been thoroughly examined.

Bukhta Mikhaylova (75°02'N., 87°23'E.) is entered S of the S extremity of a narrow sandy spit which extends for about 3 miles SSE from the W extremity of Poluostrov Mikhaylova. This peninsula, which forms the N side of the bay, extends for 15 miles in a W direction from the general line of the mainland coast and has an average width of about 5 miles. The interior of this peninsula consists of level, marshy tundra, with numerous lakes.

The bay is divided into an inner and outer part by Poluostrov Vorontsova, on the S side, and a shingle spit, on the N side. The spit is steep-to and extends S from the peninsula, 6.5 miles within the entrance. The outer part of the bay has depths of 15 to 47m, the center of the inner part has a depth of 18m, and the S end of the inner part is shallow.

Mikhaylovskoye Winter Quarters are situated about midway along the N side of the outer part of the bay. This depot is uninhabited, but provisions and fuel are stored here.

Anchorage, sheltered from all except W winds, can be obtained, in depths of 8 to 9m about 0.5 mile off the Winter Quarters. A light is shown from a framework tower, 13m high, standing on the NW side of Poluostrov Mikhaylova. It is reported that a radiobeacon is situated at the light.

6.17 Ostrova Skott-Gansena (Scott Hansen Islands) (75°17'N., 86°15'E.) lies 13.5 miles NW of the W extremity of Poluostrov Mikhaylova and consists of two principal islands with three islets between them. The W and largest island is about 2 miles long and 80m high. A light is shown from a tower, 12m high, standing on the summit of this island. The E island consists of a mass of granite, 50m high, and is faced by steep cliffs. A group of low, flat skerries lies about 1 mile W of the W island and several above-water rocks lie 1 mile W of it.

Poluostrov Mikhaylova to Mys Lemana

6.18 The coast between the outer end of Poluostrov Mikhaylova and Mys Lemana, 92 miles ENE, is less indented than the coastal sections on either side of it. However, it recedes to form a number of sizable bights. Comparatively few islands lie off this part of the coast which is known as Bereg Kharitona Lapteva.

Caution.—A local magnetic anomaly, with variations up to 30°, has been reported in places off this stretch of coast.

6.19 Ostrov Ringnes (75°38'N., 88°00'E.) lies 29 miles NE of the easternmost island of Ostrova Skott-Gansena. The S part of this island consists of a low, tundra plain bordered by a wide beach which affords a good landing place. Three islets lie within 1 mile SW of the island. A light is shown from a tower, 12m high, standing on the W side of the island. Anchorage can be taken, in a depth of 11m, about 0.5 mile SE of the light.

Caution.—A sanctuary, extending 1 mile seaward from the shore, surrounds Ostrov Ringnes. Any activity including hunting, fishing, tagging animals, and plant collection outside established tracks and landing places is prohibited, except for authorized vessels.

Ostrov Granitnyy, lying 6 miles N of the NE extremity of Ostrov Ringnes, is formed of gneiss and is 15m high. A ledge of below-water rocks, on which the sea breaks, extends up to about 200m from the E end of this islet.

Ostrova Mona (75°41'N., 88°48'E.), a group of five islets, lies between 5 and 16 miles ENE of Ostrov Ringnes. Ostrov Gerkulesa, the westernmost islet, is marked by a beacon which stands near its E extremity. A very small islet lies 0.5 mile W of Ostrov Gerkulesa and a shoal, with a depth of 5m, lies 2 miles WNW of it.

Ostrov Kravkova, the largest islet of the group, is separated from the W side of Ostrov Gerkulesa by a channel, 3.5 miles wide. A depth of 26m lies in the middle of this channel. A sunken reef fronts the NE extremity of the islet. A light is shown from a tower, 8m high, standing on the N side of the islet. It is reported that a radiobeacon is situated near the light. Anchorage can be taken, in a depth of 20m, close off the steep-to N side of this islet.

Ostrov Uzkiy (75°40'N., 88°48'E.) lies 2.5 miles SE of Ostrov Kravkova. This islet is 14m high, formed of shale, and has rugged steep-to sides. A shoal patch, with a depth of 10.4m, lies about 0.5 mile N of its E extremity.

Ostrov Krayniy, the easternmost islet of Ostrova Mona, lies 4.5 miles ESE of Ostrov Kravkova and a bank, with depths of less than 5.5m, extends W and N from it. A light is shown from a tower, 9m high, standing near the W extremity of this islet. A group formed by five above-water rocks lies about 3.2 miles S of the islet and a rock, with a depth of 3.7m, lies 1.8 miles SW of it.

Banka Yermaka, an extensive bank, has depths of less than 18m. It lies between 75°42'N and 76°02'N, and between 87°25'E and 88°45'E. The shallowest part of this bank lies about 16.5 miles N of Ostrov Gerkulesa and has a depth of 3m.

Caution.—Due to the uneven nature of the bottom, uncharted shoals may exist between the above off-lying dangers and the mainland. Great caution is necessary when navigating in this vicinity.

A sanctuary lies in an area, about 1 mile wide, around Ostrova Skott-Gansena and Ostrov Ringnes. Any activity including hunting, fishing, tagging animals, and plant collection outside established tracks and landing places is prohibited, except for authorized vessels.

6.20 Bukhta Neozhidannostey (75°07'N., 88°00'E.) lies close N of the E end of Poluostrov Mikhaylova. The S side of this bight consists of a sand and shingle spit, which separates Ozero Zalivnoye from the sea. Ozero Zalivnoye, a large lagoon, can be entered by small craft through a narrow channel at its E end.

Ostrov Markgama (75°16'N., 88°05'E.) lies 15 miles ENE of the light tower standing on Poluostrov Mikhaylova. This islet is saddle-shaped, its S side being slightly higher than its N side. A lighted beacon stands on the E side of this islet and a sunken reef extends an unknown distance seaward from its SW end.

Mys Sterlegova (Styerlyegov) (75°23'N., 88°45'E.) is located 30 miles NE of the light tower standing on Poluostrov Mikhaylova and is very conspicuous in clear weather. This point is bold and faced by dark-colored sheer cliffs. The cliffs are divided into two parts by a cleft, the E one being larger and higher. A light is shown from a tower, 11m high, standing on the point. A radiobeacon is reported to be situated in the vicinity of the light.

Mys Sosok is located 4 miles NE of Mys Sterlegova and fronted by a rugged islet. Between this point and Mys Vilka, 2.3 miles ENE, the coast is 6m high and rocky. From Mys Vilka, the coast then trends NE for 5.5 miles to Mys Povorotnyy. Bukhta Lozhnykh Ogney is entered close E of Mys Vilka, but this bay is shallow and open to the N. The buildings of a former polar station are situated 1 mile SW of Mys Sosok.

Anchorage can be taken, in depths of 11 to 13m, good holding ground, about 1 mile NW of the buildings of the former polar station.

6.21 Ostrov Stalintsa (75°32'N., 89°13'E.), the westernmost island of the Ostrova Tillo group, lies with its SE extremity located 1 mile NW of Mys Povorotnyy. This island is saddle-shaped and its N extremity, which is dark-colored, resembles Mys Sterlegova. Therefore, care must be taken so

as not to mistake one for the other. A beacon is reported to stand on the N extremity of this island.

Ostrov Pravda Severo, the largest island of Ostrova Tillo group, lies 5 miles E of Ostrov Stalintsa. A shoal bank, with a depth of less than 4m, extends for about 0.8 mile S and SE from this island and two islets lie on it.

Bukhta Voskresenskogo (75°29'N., 89°35'E.) is entered between Mys Povorotnyy and Mys Patsynko, 10 miles ENE. This bay indents the mainland coast for 6 miles and is fronted by numerous islands. Its shores are very irregular.

Ostrova Kaminskogo, a group of rugged islands, lies centered 3.5 miles NW of Mys Patsynko, in the approach to the bay. From seaward, the islands of this group appear to merge with the mainland and are difficult to distinguish.

Ostrov Bol'shoy (75°35'N., 89°51'E.), the largest island of the group, is saddle-shaped and numerous islets, above-water rocks, and below-water rocks lie within 0.5 mile of it.

Caution.—A local abnormal magnetic anomaly has been reported along the coast between Mys Sterlegova and Mys Dubinskogo, 35 miles ENE.

6.22 Mys Kaminskogo (75°34'N., 90°09'E.), located 5 miles NE of Mys Patsynko, is a rocky mass, 15m high, which is joined to the mainland by a narrow ridge of sand. A beacon is reported to stand on this point. Mys Tillo is located 8.5 miles ENE of the point and consists of a rugged mass of rock with a cove on its NE side.

Mys Dubinskogo (75°40'N., 90°53'E.), 12m high, is the rocky N extremity of a narrow peninsula which projects 1.5 miles N from the general line of the coast. This point is fronted by below and above-water rocks.

Bukhta Slyudyanaya is entered between Mys Dubinskogo and Mys Vil'da, 5 miles E. This bay extends S for 3 miles and a river flows into its head. A large cross, with a provision depot situated close to it, stands on Mys Vil'da. Ostrova Myachina, consisting of two islets surrounded by rocks, lies 1.5 miles N of the cross.

Mys Shtellinga (75°44'N., 91°44'E.), located 8 miles ENE of Mys Vil'da, is the N extremity of a peninsula which projects 1.8 miles N from the general line of the coast. This point is fringed by above-water rocks. The coast extending between Mys Vil'da and this point recedes to the S and forms two bights.

Ostrova Baklunda, consisting of two islets surrounded by rocks, lies N and NE of Mys Shtellinga. The two islets are 12m high and a beacon stands on the W and smaller one. The coast between Mys Shtellinga and Mys Lemana, 11.5 miles ENE, is indented by three small bays.

Mys Lemana (75°46'N., 92°29'E.) forms the SW entrance point of Zaliv Middendorfa, an extensive bay. A rugged islet lies 0.5 mile NW of this point. The bay, which is 19 miles long, is entered between the point and Mys Shtellinga, 9 miles NE. Ostrov Rykacheva, closely surrounded by several islets, lies in the entrance and forms the two channels. When entering, caution is essential due to the possible existence of unknown dangers.

6.23 Banka Bryuzevitsa (75°57'N., 90°30'E.), an extensive bank, has a least depth of 8m on its SW edge and lies about 32 miles WNW of Mys Lemana. The area lying in vicinity of this bank has not been closely examined, but it is known to have irregular depths varying from 18 to 37m. Therefore, care is necessary when navigating near this bank.

Ostrov Belukha (Ostrov Byelukha) lies 22 miles NW of Mys Lemana and consists of granite. This island is high, steep-sided, and a light is shown from a tower, 14m high, standing on its summit. Ostrov Belushenok, a low islet, lies 0.8 mile E of the island.

Ostrov Udarnik (76°02'N., 91°48'E.) lies 3.5 miles E of Ostrov Belukha. This island is 45m high, rocky, and rises in gentle slopes.

It was reported (1939) that an icebreaker passed through the channel leading between Ostrov Belushenok and this island in uniform depths of 40m. Ostrov Prodolgovatyy, rugged and 37m high, lies close E of the island. It is 2.5 miles long and 1 mile wide.

Ostrov Gydoyamo, 0.5 mile long, lies 3 miles ENE of Ostrov Prodolgovatyy and a reef fronts its NE side. A light is shown from a structure standing on the N side of this island. Ostrov Sorokino, a small islet, lies 2.5 miles SE of the island.

It was reported (1937) that an icebreaker passed, in a SW direction, through the channel leading between the island and the islet and found depths increasing slowly from 45 to 51m.

Ostrova Kruzenshterna (75°55'N., 92°09'E.), a group consisting of three small islets, lies 9.5 miles NW of Mys Lemana. A local magnetic anomaly has been reported to exist in the vicinity of this group.

Ostrov Gavrilova lies 12 miles NNE of Mys Lemana. Proliv Mushketova lies between the E side of this island and the mainland. This strait is 2 miles wide, but passage through it is not recommended. A shoal, with a least depth of 8.8m, was reported (1944) to lie about 1.5 miles W of the NW extremity of the island.

Ostrov Pervomayskiy lies 1.5 miles S of the S side of Ostrov Gavrilova. A bank, with a depth of 2.1m, and several above-water rocks lie within 0.5 mile of this islet.

Zaliv Middendorfa to Arkhipelag Nordenshel'da

6.24 From Mys Shtellinga, the W coast of Poluostrov Zari trends N for 10 miles to Mys Ivanova. A beacon stands on Mys Dobrotvorskogo which is located 4.5 miles N of Mys Shtellinga.

Mys De-Kolonga (76°07'N., 93°18'E.), the N end of Poluostrov De-Kolonga, is located 2 miles NE of the W extremity of the peninsula. The W part of Poluostrov De-Kolonga is connected to the E part by two sandy ridges which enclose a lagoon. A light is shown from a structure standing on the N side of Mys De-Kolonga.

Zaliv Volchiy (76°05'N., 93°38'E.) is entered between the N extremity of the E part of Poluostrov De-Kolonga and Mys Fusa, 3.5 miles E. The shores of this inlet are indented and form four separate coves. The entrance of the inlet is deep,

but several above-water rocks lie close off the W side between the W entrance point and Mys Krylova, 1.8 miles SSE.

Ostrova Ledyanyye, consisting of two rocky islands covered with tundra, lies 4.5 miles NE of Mys Fusa. The NE and larger island is 1 mile long and a lighted beacon is reported to stand on its summit. The SW island has a flat top and steep sides. Anchorage can be taken, in a depth of 15m, close S of the channel which separates the two islands.

Mys Gneysovyy (76°09'N., 94°33'E.) is the W extremity of Poluostrov Yeremeyeva which extends 4 miles W from the coast and forms the N side of the E part of Zaliv Biruli. Extensive beds of mica have been discovered in the SE part of this peninsula.

Ostrov Nansena lies with its SW extremity located 3 miles NW of Mys Gneysovyy. A small islet, marked by a beacon, lies about 0.3 mile off the NW extremity of this island. A shoal, with depths of less than 10m, extends about 0.5 mile S from the islet.

Ostrov Pravdy (76°16'N., 94°45'E.) lies 0.8 mile NW of a small peninsula which extends from the NW side of Ostrov Nansena. A lighted beacon stands on the E side of this island. The channel lying between this island and Ostrov Nansena appears to be deep, but has not been thoroughly examined.

It is reported that a polar radio station has been established on the SE side of Ostrov Pravdy.

Anchorage can be taken between the E side of this island and the N end of Ostrov Nansena. The roadstead has depths of 22 to 44m over a bottom of hard mud.

Proliv Frama leads between the S side of Ostrov Nansena and the N side of Poluostrov Yeremeyeva. It is 6 mile long and 1.2 miles wide at the narrowest point. The depths within this strait decrease regularly from 38m at its W entrance to 29m at its E entrance. A depth of 22m lies in the middle of the channel and vessels passing through the strait should keep close to either side.

6.25 Ostrov Bonevi, 50m high, lies 2 miles E of the E side of Ostrov Nansena. A light is shown from a structure standing on the N side of this island. Proliv Sverdrup lies between this island and Ostrov Nansena. This strait has not been thoroughly examined, but the fairway appears to be deep and free of dangers. The tidal currents in the strait are reported to attain a rate of 0.2 to 0.5 knot, but are considerably influenced by the force and direction of the wind.

Proliv Zarya (76°10'N., 95°20'E.) leads between the S side of Ostrov Bonevi and the mainland. A beacon stands near the E entrance of this strait. Reyd Zarya, a bight, indents the mainland shore, on the S side of the strait.

Ostrov Taymyr (76°12'N., 96°03'E.) lies N of the mainland between Mys Triangulyatsionnyy and Mys Gellenorm, 12.5 miles ESE. It is hilly and prominent from seaward. This large island is separated from the mainland shore by Proliv Taymyrskiy and its sides are indented by long inlets, so that its outline is extremely irregular.Ostrova Skalistyye, a group consisting of several rugged islets, lies 1 mile off the N side of Mys Vega, the SW extremity of the island. A lighted beacon stands on the northernmost islet of this group.

Proliv Palander leads SE between Ostrov Taymyr and Ostrov Bonevi. This strait has depths of 38 to 50m in the fairway which has a minimum width of 2 miles. A number of small bays indent both shores of the strait.

Proliv Taymyrskiy lies between the mainland and the S side of Ostrov Taymyr. Navigation through this strait is not possible due to a chain of sunken rocks extending across it. However, ample depths lie in the strait on either side of this rock barrier.

Ostrov Moiseyevka (76°20'N., 96°07'E.) lies with its S extremity located 2 miles N of the N side of Ostrov Taymyr. This island, from which a light is shown, rises to a rounded summit, 44m high. Ostrov Nizkiy, a small islet, lies 2 miles NNE of the NE extremity of the island. It is 1m high and covered with stones.

6.26 Ostrov Pilota Alekseyeva, which is covered with tundra, lies 1.5 miles N of the NE side of Ostrov Taymyr. This island, which is 40m high in its E part, rises from the sea in gentle slopes. Its coasts are rocky and indented. Two islets lie within 0.8 mile N of the NE extremity of this island.

Ostrov Pilota Makhotkina lies 1.8 miles NE of the NE extremity of Ostrov Pilota Alekseyeva. This island consists principally of a narrow strip of land almost surrounding a bay which has a narrow entrance lying on its E side.

Ostrova Bliznetsy (76°26'N., 96°36'E.), consisting of two islets, lies 5.5 miles N of Ostrov Pilota Alekseyeva. The E and largest islet is 14m high. The W islet is formed by a rocky ridge, 12m high. A lighted beacon stands on the E islet and a stone cairn is situated close N of it.

Ostrov Rozmyslova lies with its S extremity located 1.5 miles N of the NW extremity of Ostrov Pilota Makhotkina. Several below and above-water rocks have been reported to lie in the channels leading between this island and Ostrov Pilota Makhotkina and also between the latter island and Ostrov Pilota Alekseyeva. No attempt should be made to pass through these channels.

Ostrov Serp-Molot consists of a narrow ridge, 9m high, which extends for about 0.5 mile. This island lies 3 miles NE of the NE extremity of Ostrov Pilota Makhotkina and is covered with stones and rubble.

Ostrov Malyy, 14m high, lies 3 miles NE of Ostrov Serp-Molot. The NE part of this islet is hilly and the S part is low and ends in a sandy spit. A lighted beacon is reported to stand near the center of this islet.

Zaliv Taymyrskiy (76°10'N., 97°30'E.), an extensive bay, is entered between Mys Kharitona, the E extremity of Ostrov Pilota Makhotkina, and Mys Oskara, 28 miles ENE. Very little is known regarding the depths within this bay and it should be entered with great caution.

Zaliv Val'tera (76°00'N., 96°13'E.), which is entered between Mys Chernyy and Mys Lopatka, lies in the SW part of Zaliv Taymyrskiy. An islet lies close off the latter point. Reka Kolomeytseva, a river of considerable size, flows into the head of this bay. Ostrov Rastorguyeva lies with its SW extremity located 2.5 miles E of Mys Lopatka. This island extends across a considerable part of the entrance.

Zaliv Chernysheva, a bay divided into two parts, lies with its entrance located 4.5 miles E of the NE side of Ostrov Rastorguyeva. Bukhta Knipovicha lies about 8 miles NE of the bay. This inlet opens out within its entrance and extends E for about 6 miles. Several islets lie off the S side of this inlet.

Taymyrskaya Guba (76°17'N., 97°00'E.), entered between Mys Medezshiy and Mys Osten-Sakena, forms the estuary of Reka Nizhnyaya Taymyra. This estuary is covered with flats, which dry in places, and can only be entered by vessels with light drafts. An islet, lying at the head of this estuary, is very conspicuous because of its white cliffs. A radio and meteorological station was established (1935) on Mys Osten-Sakena. A dwelling building, a storehouse, and two masts, 25m high, are situated on the point.

Arkhipelag Nordenshel'da

6.27 Arkhipelag Nordenshel'da consists of approximately 90 small rocky islands and islets lying N of the mainland. The N limit of this archipelago, which consists of four main groups, lies 55 miles NW of Mys Oskara. Except for the polar stations situated on Ostrov Russkiy and Ostrov Tyrtova, there are no known settlements on these islands.

Local abnormal variations have been reported in the vicinity of these islands. A variation of 26°E was observed along the NW coast of Ostrov Russkiy.

Ostrova Vil'kitskogo

6.28 **Ostrov Gerbershteyna** (Ostrov Gerbershteina) (76°21'N., 94°35'E.), the southernmost island of Ostrova Vil' kitskogo, lies 4.5 miles NNW of Ostrov Pravdy. The surface of this island is rocky and rises to three hills. The E and tallest hill is 16m high. A reef, on which the sea breaks, lies 1 mile NW of this island.

Ostrov Kamenistyy lies with its W extremity located 4.5 miles NE of Ostrov Gerbershteyna. An islet lies close off the W extremity of this island. Grounded ice has been observed off the SW and NE sides of this island, indicating the existence of shoals.

Ostrov Dzhekman lies with its SW extremity located 0.5 mile E of Ostrov Kamenistyy. This island consists of two parts connected by a low isthmus which has bays indenting both of its sides. The S extremity of this island is steep-to, but a number of below and above-water rocks have been reported to lie near its SE side.

Ostrov Khavgard (Khovgard) lies with its N extremity located 2 miles SE of the S extremity of Ostrov Dzhekman. This small island rises to a ridge, 12m high. A spit, with a depth of 4.3m at its outer end, extends 0.5 mile N from the N end of the island.

Ostrov Shvetsova (76°25'N., 95°33'E.), 11m high, lies 1.5 miles ESE of the E end of Ostrov Smezhnyy. A spit extends 0.5 mile SSW from this islet. The channel leading between these two islets has depths of 29 to 44m in the fairway. A light beacon is reported to stand on the summit of Ostrov Shvetsova.

Ostrov Chabak, 100m high, lies 5.5 miles NNW of Ostrov Shvetsova and is prominent. Several small islets and above-water rocks lie in the vicinity of this island.

Ostrova Tsivol'ki

6.29 Ostrova Tsivol'ki, a group of islands and islets, lies N of Ostrova Vil'kitskogo and is separated from the latter group by a channel with a least width of 4 miles. This channel has not been completely examined, but a surveying vessel reported depths of not less than 29m when passing through it. Practically nothing is known about the depths in the channels leading between the various islands and islets of the group.

Ostrov Makarova (76°33'N., 94°10'E.), the westernmost island of the group, lies 13 miles NNW of Ostrov Gerbershteyna. It is 7 miles long, 2 miles wide, and 59m high. The S side of this island is steep-to and indented by two bays. A rocky shoal, with a least depth of 4.6m, lies about 2.8 miles W of the island. A light is shown from a tower, 12m high, standing near the W extremity of the island.

Ostrov Kazak, composed of granite, lies 2.5 miles N of the W end of Ostrov Makarova. Isolated depths of 16m have been reported to lie about 3.5 miles NW of this islet. A shingle bank extends SE for an unknown distance from the islet and this vicinity should therefore be avoided.

Ostrov Vasil'yeva (76°37'N., 94°25'E.), 36m high, lies 4 miles E of Ostrov Kazak. Its surface is covered with tundra and scattered rocks. The N extremity of the island consists of a narrow, rocky ridge which projects 0.3 mile NE from the main part of the island. A rugged islet lies 0.5 mile W of this ridge. A bight, with a sandy beach at its head, lies on the NE side of the island, S of the ridge. It was reported (1938) that a vessel anchored, in a depth of 11m, within this bight.

Ostrov Shul'tsa, 26m high, lies N of Ostrov Vasil'yeva, from which it is separated by a channel, 0.5 mile wide. The coast of this island is mostly cliffy, but sandy beaches fringe its N and E sides. Ostrov Sadko, 27m high, lies N of Ostrov Shul'tsa, from which it is separated by a channel, 0.5 mile wide. This channel appears to be shallow in its E part.

Ostrov Lenin (76°46'N., 94°33'E.) lies 4 miles NNE of the NW extremity of Ostrov Sadko. This islet is rocky and consists of four hillocks. Depths of 5 to 7m have been reported to lie in the channel leading between this islet and Ostrov Sadko.

Ostrov Savvy Lozhkina lies with its W extremity located 0.3 mile E of the E extremity of Ostrov Lasil'yeva. Ostrov Ledokol lies 1.8 miles SSE of the SW extremity of Ostrov Savvy Lozhkina. It was reported (1938) that a vessel passed, in depths of not less than 11m, about 0.2 mile E of Ostrov Ledokol, but breakers were observed in an area lying about 0.9 mile ESE of the islet.

6.30 **Ostrov Krasin** (76°37'N., 95°05'E.), the largest island of the group, lies E of Ostrov Savvy Lozhkina. This island is 8.5 miles long and is mostly covered with tundra. Its summit is 60m high and rises near the SW end. Ostrov Oktyabr' lies 2.8 miles SE of the SW extremity of the island. This islet is 1.8 miles long and rises to a height of 13m near

its N end. Ostrov Yermak lies with its NW extremity located 4 miles SE of Ostrov Lenin. This island rises to a height of 26m near its center and a small islet, 8m high, lies 0.5 mile W of its NW extremity.

Ostrov Kovalevskogo lies 1.2 miles NW of the N end of Ostrov Krasin. This islet, which is 0.2 mile long, is surmounted by three hillocks, each 6m high. An above-water rock lies close off its NE extremity.

Ostrov Vitte, a very small islet, lies 1 mile NE of Ostrov Kovalevskogo and is 7m high.

Ostrova Pakhtusova

6.31 **Ostrov Dobrynya Nikitich** (76°39'N., 95°30'E.), one of the westernmost islands of the Ostrova Pakhtusova group, is separated from the E end of Ostrov Krasin by Proliv Trudnyy, a strait, which has a minimum width of about 0.5 mile. The island is 6 miles long and consists of two parts joined at their S ends by a tongue of land. The W part consists of two hills which slope steeply N and NE. The E part consists of a hill standing at its center with a lower hill rising close E of it. The S shore of the island is fringed, in several places, by numerous above-water rocks.

Ostrov Petersena, the largest island of the Ostrova Pakhtusova group, lies 2 miles E of Ostrov Dobrynya Nikitich and its shores are very indented. This island consists of a SW part and a NE part which are separated from each other by a neck of land, 1.2 miles wide. A wide bight lies between Mys Dolgiy, the SW extremity of the island, and Mys Okonchaniya, 5 miles SE. The head of this bight is divided into two bays. Ostrov Granichnyy, an islet, lies in the entrance.

Ostrov Truvor (76°42'N., 95°23'E.) lies NW of the NW shore of Ostrov Dobyrnya Nikitich. A bight indenting the NE side of this island is reported to be shallow. It is reported that a vessel anchored, in a depth of 12m, about 0.2 mile from the shore of a bight indenting the W side of the island.

Ostrov Silach lies 0.8 mile W of the N extremity of Ostrov Truvor. This islet is small, rugged, and several above-water rocks lie off its N extremity.

Ostrov Russkiy

6.32 **Ostrov Russkiy** (77°03'N., 96°05'E.) lies with its SW extremity located 17 miles N of the N extremity of Ostrov Krasin. This island is 21 miles long, 7.5 miles wide, and consists of slate and sand. Its central part is formed by a tableland, 40m high. A polar station, with several buildings and radio masts, is situated near the N end of the island. A light is shown from a framework structure, 20m high with a radar reflector, at the NW end of Ostrov Russkiy. A lighted beacon is also situated near the SW extremity of the island. Good temporary anchorage can be taken, in a depth of 27m, about 0.5 mile offshore, abreast the polar station. If this anchorage is obstructed by ice, a berth may be found about 1 mile offshore, E of the NE extremity of the island.

Caution.—A local magnetic anomaly has been reported to exist along the NW coast of Ostrov Russkiy. Variations of up to 26°E have been observed.

Ostrov Litke

6.33 Ostrova Litke, a group of islands and islets, extends S and SE of Ostrov Russkiy. Ostrov Sofii, the southernmost islet of the group, lies 11 miles SE of the SW extremity of Ostrov Russkiy. This islet is 1 mile long, 0.2 mile wide, and 12m high. A sunken reef extends W for an unknown distance from its W extremity.

Ostrov Torosnyy (76°51'N., 95°45'E.), an island, lies 2 miles N of Ostrov Sofii and rises to a height of 41m at its center. A vessel reported (1938) finding depths of not less than 20m in the fairway leading between this island and Ostrov Sofii.

Ostrov Yermolova lies ENE of Ostrov Torosnyy and is separated from it by a channel with a least width of 0.8 mile. This island is 7.5 miles long and is mostly covered by tundra. It rises to a height of 43m near the NE side.

Ostrov Shileyko lies between the NW part of Ostrov Yermolova and the SE side of Ostrov Russkiy. This island is 3.5 miles long, 1.5 miles wide, and rises to a height of 16m near its SW end.

Ostrov Pedashenko lies 3.5 miles SE of the E extremity of Ostrov Yermolova. The SW end of this island consists of a rugged ridge, 20m high. A group of below and above-water rocks lies about 2.5 miles SW of the SW extremity of the island. The channel leading between this island and Ostrov Yermolova has not been examined.

Ostrova Tri Brata (76°51'N., 96°47'E.), a group consisting of three islets, lies between 2 and 4.5 miles E of the NE extremity of Ostrov Pedashenko. The islets are rugged with steep slopes and cliffy shores.

Ostrova Dezhneva, consisting of two small islets, lies centered 2.5 miles E of the easternmostmost islet of the Ostrova Tri Brata group. These two rugged islets are separated by a channel, 0.2 mile wide, and are about 6m high.

6.34 Ostrov Matros lies with its NW extremity located 3 miles E of the easternmost islet of the Ostrova Dezhneva group. This islet is 2.5 miles long, 1.8 miles wide, and 58m high. Its surface is covered with scattered rocks and tundra. Several rocks lie close S of the NE extremity of the islet, which is formed by a small peninsula, and front the SE extremity.

Ostrov Saloma (76°48'N., 97°14'E.) lies with its N extremity located 1.2 miles SW of the S extremity of Ostrov Matros. This islet is 14m high and its surface is covered with scattered rocks.

Ostrova Yevgeniya Fedorova, consisting of two islands, lies ESE of Ostrov Matros. The N island, which is 28m high, is separated from Ostrova Matros by a channel, 0.8 mile wide. The S island is 14m high and covered with scattered rocks. The channel leading between the two islands is obstructed by above-water rocks at its W end.

Ostrov Nord, 70m high, lies with its W extremity located 0.2 mile E of the S island of Ostrova Yevgeniya Fedorova. Ostrova Kolomeytseva, consisting of two islands, lies centered 4.5 miles N of Ostrov Nord. The islands are located 1.5

miles apart. The W and larger island is rugged, 0.5 mile in diameter, and 15m high.

Ostrov Priyemnyy lies 8 miles ENE of Ostrov Nord. This islet is 15m high, rugged, and fringed by several above-water rocks. A light is shown from a framework tower, 8m high, standing on this islet.

6.35 Ostrov Dal'niy (76°43'N., 98°02'E.) lies SE of the S extremity of Ostrov Nord. The N part of this island is rugged and 17m high. The S part is low and covered with tundra. A shoal, with a depth of 4.9m, is reported to lie about 3 miles SSW (position approximate) of the S end of this island.

Ostrov Bianchi (76°44'N., 97°30'E.) lies 3 miles W of the S extremity of Ostrov Nord. This island rises to a number of peaks, the tallest of which is dome-shaped, 90m high, and conspicuous. Numerous rocks have been reported to lie close off the N side of the island.

Ostrov Tyrtova lies with its N extremity located 1 mile S of the S extremity of Ostrov Bianchi. An above-water rock lies in the channel leading between the two islands. This island is 8.5 miles long and rises to a height of 30m in its SW part. A light is shown from a structure, 12m high, standing on the SE part of the island.

Ostrov Zheleznyakova lies 1 mile E of the E side of Ostrov Tyrtova. This islet is 15m high and another small islet, 5m high, lies 1.8 miles E it.

A group of shoals, with a least depth of 3.4m, is reported to lie about 4 miles NW of the SW extremity of Ostrov Tyrtova.

Mys Oskara to Mys Poluostrovnoy

6.36 Mys Oskara (76°30'N., 98°58'E.) is the N extremity of Poluostrov Oskara (Oscar Peninsula), which forms the NE side of Taymyrskaya Guba. Gora Kel'kha, 200m high, stands 44 miles ENE of the point. This mountain is very conspicuous from seaward.

Zaliv Tollya (Toll Bay), a large bay, is entered between Mys Oskara and Mys Mogil'nyy, 33 miles ENE, and is open to the NW. From Mys Oskara, the S shore of this bay trends E for 27 miles to the entrance of Gafner F'ord. Mys Lavrova, the E entrance point of this fjord, is marked by a beacon. From its entrance, which is about 180m wide, Gafner F'ord extends in an ESE direction for 22 miles to its head. It is shallow and the E part is encumbered by drying flats.

The entire E shore of Zaliv Tollya is fronted by a shoal, with depths of less than 5m, which extends, in places, up to 4 miles seaward.

From Mys Mogil'nyy, the coast trends NNW for 5 miles to Mys Sterlegova. This section of coast is low and intersected by a number of streams. The coast then trends NNE for 8 miles to Mys Kit, a dark-colored bluff, which is conspicuous from seaward. A reef extends about 1 mile NE from Mys Kit. A shoal, with a depth of 5.2m, lies about 4 miles N of Mys Kit.

Bukhta Palandera (76°39'N., 101°18'E.), a bight, is entered between Mys Kit and a point, 6 miles NNE, and a river flows into its head.

From this bight, the coast trends NNE for 20 miles to Mys Poluostrovnoy. Gora Kamennyy, a conspicuous hill, rises 7 miles SSW of this point and is 40m high.

6.37 Ostrova Firnleya (77°10'N., 100°13'E.), a group consisting of four islets, lies parallel with the mainland, 17 miles NW of Mys Kit. Ostrov Yuzhnyy, the southwesternmost islet of this group, is 1 mile in diameter and 30m high. An above-water rock lies 1 mile W of its W end. A light is shown from a tower, 8m high, standing on the S side of this islet.

Ostrov Vtoroy, a small islet, lies 1.5 miles NE of Ostrov Yuzhnyy. It is 17m high and has steep sides except on the E side which is fringed by a shingle beach. Ostrov Tretyy lies 0.8 mile NE of Ostrov Vtoroy. This islet is 1.5 miles long and 0.2 mile wide.

Ostrov Severnyy, the northeasternmost and smallest islet of the group, lies 0.8 mile NE of Ostrov Tretyy. An unnamed islet (Ostrov Moristyy) lies 7 miles N of Ostrov Severnyy. During the early part of the navigation season, ice is reported to heap up in the vicinity of this islet and make it conspicuous. However, the islet is reported to be difficult to identify when the ice melts.

Ostrov Lishniy, a sandy islet, lies 7 miles NW of Mys Sterlegova and is 1m high. A lighted beacon, with a racon, stands on this islet. A reef extends about 1.8 miles E from this islet and a shoal, with depths of less than 10m, extends up to 2.5 miles SW and 3.5 miles SE from it.

Caution.—Sanctuaries, about 1 mile wide, surround Ostrova Finrnleya and Ostrov Lishniy. Any activity including hunting, fishing, tagging animals, and plant collection outside established tracks and landing places is prohibited, except for authorized vessels.

6.38 Ostrov Golland Gansena (Helland Hansen Island) (77°31'N., 102°40'E.) lies 14 miles NE of Mys Poluostrovnoy and 2 miles from the mainland coast. This island is 1.5 miles long and 0.5 mile wide. The channel leading between the island and the mainland is foul.

Ostrova Geyberga (Heiberg Islands), a group of four islands, lies between 15 and 21 miles NW of Mys Poluostrovnoy. The islands are composed of granite and are mostly faced by steep cliffs, but there are small, sandy beaches in places.

Ostrov Vostochnyy, the southernmost island of the group, is 2 miles long and 0.8 mile wide. A sand and shingle spit extends from its E side. A light is shown from a tower, 8m high, standing near the SE side of this island.

Ostrov Sredniy (77°37'N., 101°25'E.) lies 1 mile NW of Ostrov Vostochnyy. This island is 2 miles long and 0.8 mile wide. Ostrov Zapadnyy lies 2.5 miles NW of Ostrov Srednyy and a beacon is reported to stand on its summit. Ostrov Severnyy, a small island, lies about 2 miles E of the E end of Ostrov Zapadnyy and several above-water rocks are reported to lie near the middle of the intervening channel. Sandy flats extend about 1 mile W and 0.5 mile E of this island.

Mys Poluostrovnoy to Mys Chelyuskin

6.39 Bukhta Tessema (77°21'N., 102°09'E.), a bight, lies close NE of Mys Poluostrovnoy. Two small islands lie in the entrance to this bight and protect it from NW winds. The depths within the bight shoal rapidly from the entrance and the greater part of it dries. Between the entrance of this bight and Mys Leny, 21.5 miles NE, the coast has few conspicuous features.

Mys Leny, 2.5 miles wide, is the SW extremity of the seaward face of a peninsula which extends 2 miles NW from the coast. A beacon is reported to stand on Mys Vega, the NE extremity of the peninsula. Mys Vega is fringed by a bank, with depths of less than 10m, which extends about 0.5 mile offshore.

Bukhta Oskara, a bight, lies between Mys Vega and Mys Kuybysheva, 8 miles ENE. Good temporary anchorage can be obtained, in a depth of 9m, about 1 mile from the shore of this bight.

6.40 Bukhta Spartak (77°43'N., 104°09'E.) is entered between Mys Sakko and Mys Chelyuskin, 2 miles E. This bay affords anchorage, with good holding ground, during offshore winds, but should be vacated when the winds become onshore. A beacon is reported to stand 0.5 mile S of Mys Sakko.

Mys Chelyuskin (77°43'N., 104°15'E.) is the northernmost point of the continent of Asia. A beacon stands on this point and a light is shown, on request, from a framework tower, 17m high, standing 1 mile SE of it. A radiobeacon is reported to be situated in the vicinity of the light. A polar station, the Ye. K. Fedorov (Mys Chelyushkin) Hydrometeorological Observatory, with a magnetic observatory, is situated on the E side of the point, 0.5 mile from its extremity. During good weather, temporary anchorage can be obtained, in a depth of 9m, about 0.2 mile E of this polar station. However, this roadstead should be used with great care as it has not been thoroughly examined. A shoal patch, with a depth of 3.7m, is reported to lie about 180m offshore in this area.

Proliv Vil'kitskogo (Borisa Vil'kitskogo)

6.41 Proliv Vil'kitskogo (77°50'N., 102°30'E.), the southernmost of the straits providing access from the Kara Sea to the Laptev Sea, passes between Poluostrov Taymyrskiy and the S side of Ostrov Bol'shevik. The W entrance, which is 48 miles wide, lies between Mys Poluostrovnoy and Mys Neupokoyeva, the SW extremity of Ostrov Bol'shevik. The E entrance, which is also 48 miles wide, lies between Mys Pronchishcheva, on the mainland, and Mys Vaygacha, the SE extremity of Ostrov Bol'shevik. The strait is 60 miles long and has a least width of 30 miles in its central part, off Mys Chelyuskin

Tides—Currents.—The prevailing current in the strait is NE. A vessel reported that, when proceeding from Taymyrskiy Zaliv to Mys Chelyuskin, it experienced a current which set NE at a rate of 1.5 knots. This current has also been reported to set at a rate of 2 to 3 knots with a SW wind.

Ostrov Bol'shevik (78°30'N., 102°30'E.) forms the N side of the strait and its S coast extends ENE for 75 miles between Mys Neupokoyeva and Mys Vaygacha.

A beacon is reported to stand on Mys Golodnyy, 4.5 miles E of Mys Neupokoyeva. A light is shown from a structure standing about 0.5 mile NE of Mys Neupokoyeva. Mys Nikitina, faced with cliffs, is located 31 miles ENE of Mys Neupokoyeva.

Between Mys Nikitina and Mys Antseva, 19 miles E, three bights, separated by cliffy points, indent the coast. The westernmost bight is entered between Mys Nikitina and Mys Mordvina, 5 miles E. The middle bight lies between the latter point and Mys Taymyra, 9 miles ESE. The E bight lies between Mys Taymyra and Mys Antseva, 5.5 miles E. Although these bights have not been surveyed, it has been reported that they have depths suitable for anchorage.

A light is shown from a structure standing on Mys Antseva and an islet lies close SSW of the point. An islet lies 0.5 mile WSW of Mys Mordvina. Two islets lie close SE of Mys Taymyra; a beacon stands on the southernmost islet.

Mys Peschanyy (79°26'N., 102°29'E.) is located at the N end of Ostrov Bol'shevik. A former polar station is located here with Medvezhiy Beacon, equipped with a radar reflector, situated on the coast about 400m SSE of Mys Peschanyy.

Anchorage is available, in depths of 12 to 14m, about 0.6 mile NW of the point as long as there is no drifting ice in the vicinity. Vessels can be unloaded with the assistance of much smaller craft, including scows with drafts no greater than 2m, which will deliver the cargo directly to the shore.

Zaliv Akhmatova,the largest gulf to indent Ostrov Bol'shevik, is located on the NE side of the island. The entrance to Zaliv Akhmatova is 9.3 miles wide between Mys Mokryy (79°18'N., 103°13'E,.) on the NW side, and Mys Davydova, on the SE side. The coastline in the N part of the gulf is gently sloping, changing to mountainous with sharp drop-offs to the shore in the S part. Depths are greater than 100m in the entrance, decreasing to 20m in the central part of the gulf. Several banks within Zaliv Akhmatova have depths of 5.8m to 10.2m. Zaliv Akhmatova and the adjacent land of Ostrov Bol'shevik are designated as a state nature reserve.

Other bays, numerous in number, indent the coast of Ostrov Bol'shevik S of Mys Davydova to the entrance of Proliv Yevgenova.

6.42 Proliv Yevgenova (78°22'N., 105°46'E.) separates the SE part of Ostrov Bol'shevik and Ostrov Starokadomskogo and provides an entrance to Proliv Vil'kitskogo from the NE. Proliv Yevgenova has been surveyed in detail and is a deep and safe strait with depths reaching 245m. It is not uncommon to find drift ice and small icebergs in the strait.

Ostrov Malyy Taymyr is located 4 miles SE of Ostrov Starokadomskogo and is separated from it by Proliv Malyy.

Proliv Malyy has depths exceeding 20m in the NE and SW approaches to the strait. When sailing through this strait, close attention needs to be given to Ostrovok Morzhovaya Koshka, which lies on the NW side of the NE entrance to the strait, because it is a very low-lying islet with steep-to cliffs for a coastline. Navigation through Proliv Malyy is not

recommended during times of reduced visibility since the islands are hard to distinguish from the frequent ice floes in the area.

Caution.—Care must be taken when sailing within the 12 mile area along the E coast due to a very irregular sea bed and lack of reliable surveys.

The Kara Sea—Off-lying Islands

6.43 Ostrov Vize (79°30'N., 77°00'E.), which is 12 miles long and 3 miles wide, lies 166 miles W of Ostrov Pioner. The S portion of this island is low and a beacon is reported to stand on it. The N portion is 30m high and cliffy in places. A radio station is reported to be situated about 1 mile ENE of the beacon.

A bank, with depths of less than 9m, extends about 10 miles NNW from the NW extremity of the island. A similar bank extends about 6 miles E from the E extremity.

In the W and SW approaches to the island, the depths decrease rapidly to 50m, about 14 miles from the island, and again to 18m, about 5 miles from the island. An extensive bank, with depths of 14 to 20m, lies about 30 miles ESE of the island.

6.44 Ostrov Ushakova (80°53'N., 79°30'E.), which is 15 miles long and 10 miles wide, lies 80 miles NNE of Ostrov Vize. This island is covered with an unbroken, dome-shaped icecap which is 200m high. Depths of 15 to 30m lie about 1 mile off the SW part of the island and a shoal, with a depth of 7.3m, has been reported to lie about 4 miles off its NE side.

Two small islets, the existence of which is doubtful, were reported (1936) to lie about 65 miles WNW of Ostrov Ushakova. One of these islets appeared as a dark brown pyramidal rock. The other, reported to lie about 3.5 miles SE of the first, appeared to be covered with a dome-shaped icecap. These islets are possibly the same ones which were reported (1937) as observed from an aircraft near the same position.

Ostrov Voronina, lying 38 miles NE of Ostrov Kirova, is 3.8 miles long and 1.8 miles wide. This island appears very dark from a distance. A beacon is reported to stand on its SE extremity. The depths in the approach to this island are very irregular and great care should be used when navigating in its vicinity.

Severnaya Zemlya

6.45 Severnaya Zemlya is an extensive group of large and small islands. These islands lie N of Poluostrov Taymyr, the N part of Siberia, and between the Kara Sea and the Laptev Sea. The interiors of the islands are covered with domed icecaps which, in some places, extend to the sea.

The possibility of vessels on the Northern Sea Route passing N of Severnaya Zemlya has been considered, but little information concerning this variant of the route is available.

In mild years, the navigation season in the vicinity of Severnaya Zemlya lasts from the middle of August to the middle of September. During this period, the straits are frequently obstructed by ice driven into them by the wind. In some years, the straits are icebound throughout the year.

Proliv Vil'kitskogo—East Approach

6.46 The N side of Proliv Vil'kitskogo is formed by the S coast of Ostrov Bol'shevik. Several islands and islets lie in the E entrance of this strait.

Ostrov Starokadomskogo, which is 10 miles long and 5 miles wide, lies 16 miles E of Mys Vaygacha. A cairn stands at the SW side of this island. A bank, with depths of less than 9m, extends about 4 miles N from the N side of this island and several islets stand on it.

Ostrov Malyy Taymyr (78°05'N., 107°15'E.), which is 16 miles long and 8 miles wide, lies 4 miles SE of Ostrov Starokadomskogo. Mys Nizkiy, the W extremity of the island, is low and difficult to distinguish, but a conspicuous hill, 20m high, stands 4 miles E of this point. A light is shown from a structure standing on the SE extremity of this island and a radiobeacon is reported to be situated about 9 miles WNW of it. It was reported that a polar station had been established on this island.

Proliv Shokal'skogo

6.47 Proliv Shokal'skogo (79°10'N., 101°00'E.) is the middle strait of the three which connect the Kara Sea with the Laptev Sea. It trends, with steep-to shores, NNE and SSW between Ostrov Bol'shevik and Ostrov Oktyabr'skoy Revolyutsii. The S entrance of the strait lies between Mys Neupokoyeva and Mys Sverdlova, 53 miles NNW.

The N entrance is 27 miles wide, stretching between Mys Peschanyy, which is the N extremity of Ostrov Bol'shevik, and Mys Anuchina to the WNW.

The strait is 80 miles long, 10 miles wide at its narrowest part, and deep. A least depth of 37m, along the axis of the strait, lies in the S entrance. The depths within the strait are very irregular and, in some places, are over 180m. It was reported that the strait is considered to be an alternate route from the Kara Sea to the Laptev Sea, because the main route, via Proliv Vil'kilskogo, is frequently obstructed by ice packs. A new polar station, situated on the W side of Ostrov Bol'shevik, advises mariners on ice and weather conditions for either transit.

Pilotage.—During ice conditions, employment of an icebreaker pilot is compulsory for all vessels using the strait.

Caution.—During the period from 1930 to 1952, abnormal variations were observed off Mys Sverdlova and Mys Peschanyy. Variations between 29°E and 54°E were observed off the former point and a variation of 41°E was observed off the latter.

Proliv Shokal'skogo—South Entrance

6.48 Ostrova Opasnyye (78°23'N., 98°15'E.), consisting of two islets, lies 31.5 miles NW of Mys Neupokoyeva and 27 miles SSW of Mys Sverdlova. These two islets, lying less than 1 mile apart, are very small and difficult to distinguish.

Vessels should exercise great care when approaching them in thick weather. A beacon has been reported to stand on the E islet.

Ostrova Krasnoflotskiye, a group consisting of five islets, extends in a line from a position 8 miles SSE of Mys Sverdlova to a position 17 miles S of the same point. Ostrov Bol'shoy, the largest islet, is 2.5 miles long. Ostrov Greben, the southernmost islet, is 39m high. Beacons are reported to stand on both of these islets. A radiobeacon is reported to be situated in the vicinity of the beacon on Ostrov Bol'shoy.

The E side of Proliv Shokal'skogo is formed by the W coast of Ostrov Bol'shevik. From Mys Neupokoyeva, this coast rises and, about midway through the strait, consists of sheer flat-topped mountains. Then, towards Mys Peschanyy, the coast decreases in height and consists of low terraces.

Zaliv Tel'mana (78°50'N., 100°48'E.) is entered between a point, located 21 miles NNE of Mys Kasatkin Nos, and a point, 3.5 miles NE. It indents the coast for 9 miles in an ESE direction. This fjord-like bay is very deep and numerous ice bergs have been observed drifting within it. Because of the depths and the icebergs, the bay should not be considered as a safe place for anchorage.

Zaliv Mikoyana is entered 10 miles W of Mys Peschanyy. This bay extends S for 10 miles from its entrance, but the depths are unknown. Several islets lie close off the W entrance point and close off the E shore, near the head of the bay.

Proliv Shokal'skogo—West Side

6.49 Between Mys Sverdlova and Mys Massivnyy, 12 miles E, the coast of **Ostrov Oktyabr'skoy Revolyutsii** (79°30'N., 97°00'E.) is backed by a high icecap. Ostrov Sverdlova lies near the coast with its SW extremity located 2 miles E of Mys Sverdlova. Mys Massivnyy, 175m high, is dark in color. A fishing hut, standing low down on this point, is reported to be visible from 2 miles seaward. The ice cap backing the point is about 600m high.

Mys Olovyannyy, a hummocked projection, is located 10 miles NE of Mys Massivnyy. Both Mys Massivnyy and this point show up well against the glacier which descends to the strait between them.

Zaliv Marti (79°12'N., 99°22'E.), a fjord-like bay, lies with its S entrance point located 12.5 miles NNW of Mys Olovyannyy. From the entrance, which is 6 miles wide, this bay extends for 9.5 miles in a NW direction. Glaciers descend from the ice cap to the inner parts and head of the bay. The depths within the bay are unknown.

Between the N entrance point of Zaliv Marti and Mys Anuchina, 28 miles NNE, the coast has only minor indentations, but several islands lie off it.

Ostrov Oktyabr'skoy Revolyutsii—Southwest Side

6.50 From Mys Sverdlova, the SW coast of Ostrov Oktyabr'skoy Revolyutsii trends WNW for 44 miles to **Mys Mednyy** (79°02'N., 95°10'E.) and then NW for 40 miles to the W extremity of Poluostrov Parizhskoy Kommuny.

Bukhta Snezhnaya (Bukhta Snyezhnaya) (78°47'N., 98°08'E.), an inlet, is entered between Mys Sverdlova and a point, located 6 miles W. Ostrova Olyeni, a group of islets, lies within 3.5 miles S of the W entrance point. These islets are joined by low ridges of sand and shingle. Several smaller islets lie E of this group and off the entrance to the inlet. There appears to be a deep channel which leads into the inlet between Ostrova Olyeni and these smaller islets.

Bukhta Snezhnaya, sheltered from all except W winds, is the only possible place for anchorage in the SW approach to Proliv Shokal'skogo. However, this inlet has not been thoroughly examined and should be entered with great care.

Between the W entrance point of Bukhta Snezhnaya and Mys Mednyy, the low steep coast rises gradually inland.

Between Mys Mednyy and Mys Krzhizhanovskogo, 17 miles NW, the coast is low and intersected by several lagoons. Bakhta Stalina, entered N of the latter point, has not been examined.

Poluostrov Parizhskoy Kommuny has a very indented coast and numerous islets lie off its S side.

Ostrov Dlinnyy (79°12'N., 92°20'E.) lies 21 miles W of Mys Krzhizhanovskogo. This island is 6 miles long and 2 miles wide. A hummock stands on the W part and is conspicuous from the N.

Arkhipelag Sedova (Arkhipelag Syedov), a chain consisting of five islands, extends W for 30 miles from the S part of Poluostrov Parizhskoy Kommuny. The islands are 20m high and have steep sides. They are joined by sand and shingle ridges, parts of which dry. Ostrov Domashniy, the smallest island of the chain, is very narrow. A polar station and a radio station are reported to be situated on this island.

Mys Vkhodnoy is located midway along the S side of Ostrov Sredniy, the second island from the W. Anchorage, with good shelter from all except SE winds, can be obtained, in depths of 14 to 20m, mud and shingle, about 2 miles NW of this point.

Ostrov Pioner (79°52'N., 92°35'E.) lies N of Arkhipelag Sedova and NW of the W part of Ostrov Oktyabr'skoy Revolyutsii. The W side of this island is very indented and three bold, rugged promontories project from it.

Zaliv Kalinina is entered between Mys Krupskoy, the SW extremity of the island, and Mys Dzerzhinskogo, 7 miles N, and is the most extensive inlet on the W side of the island. From the entrance, this inlet extends E for 12 miles. It has depths of 58m in the entrance and 30 to 37m in the central part. A cove lies at the head of the inlet and has depths of 5 to 9m in its S part.

Proliv Krasnoy Armii

6.51 Proliv Krasnoy Armii, which is 80 miles long, is the northernmost of the three straits connecting the Kara Sea with the Laptev Sea. Its SW part is 7 to 10 miles wide, but the narrows, lying in the central part, are only 1.5 miles wide.

The E entrance to the strait is situated between Mys Obryvistyy and Mys Gvardeytsev, 5 miles SE. Although depths in the E entrance are more than 200m, several conspicuous rocky islets are present.

This strait has not been examined. Numerous islets lie within it and several glaciers descend into it. The numerous icebergs, which calve from the glaciers, render navigation extremely difficult. It has been reported that, in some years, the strait is probably obstructed by ice throughout the entire year.

Although dependent on the ice situation at the time, it is recommended to enter the E entrance to Proliv Krasnoy Armii from the E so as to avoid Banka Nekrasovskaya (80°12'N., 99°37'E.).

Proliv Yungshturm (80°03'N., 93°20'E.), which is 30 miles long, trends ESE and WNW between the NE side of Ostrov Pioner and the SW side of Ostrov Komsomolets. The W entrance of this strait is 12 miles wide, but its SE end narrows to a least width of 3 miles. The strait has not been examined and several islets have been reported to lie within it.

Ostrov Komsomolets—Northwest Side

6.52 The NW side of Ostrov Komsomolets trends NE for 75 miles from Mys Frunze to Mys Molotova. This stretch of coast is low and indented by a number of bights.

Mys Litvinova, located 11 miles NE of Mys Frunze, marks the end of a prominent promontory. Several low flat-topped islets lie 5 miles SW of this point.

Ostrov Komsomolets and Ostrov Oktyabr'skoy Revolyutsii—East Coasts

6.53 The E coast of Ostrov Komsomolets trends SE for 42 miles from Mys Molotova to Mys Rozy Lyuksemburg and then SSW for 23 miles to Mys Bukhteyeva. It then continues 7 miles SSW to the N entrance point of the NE entrance to Proliv Krasnoy Armii. Several glaciers descend to the sea in places along this stretch.

Mys Voroshilova, the S entrance point of Proliv Krasnoy Armii, is formed by the N extremity of Ostrov Oktyabr'skoy Revolyutsii. From this point, the coast of the island trends ESE for 19 miles to Mys Berga and then SSE for 24 miles to Mys Anuchina.

A meteorological station is reported to be situated about 26 miles W of Mys Anuchina.

Mys Arkticheskiy (81°16'N., 95°42'E.) is the N end of Ostrov Komsomolets and has a glacier dome, 89m in height, with ice extending down to the shoreline in this area.

Mys Obryvistyy (80°13'N., 97°19'E.) is the SE end of Ostrov Komsomolets. The headlands in this area are 11m in height, with a sharp drop-off to the sea. Gora Mayak rises 1.3 miles NNW of the headlands and is conspicuous from the sea.

Additional chart coverage may be found in NGA/DLIS Catalog of Maps, Charts, and Related Products (Unlimited Distribution).

Sector 7 — CHART INFORMATION

Sector 7
The Laptev Sea

Plan.—This sector describes the shores of the Laptev Sea, from Proliv Vil'kitskogo to Proliv Dmitriya Lapteva. The descriptive sequence is from W to E. This sector also describes Ostrova Novosibirskiye from S to N.

General Remarks

7.1 The W shore of the Laptev Sea is formed by that part of the E side of Poluostrov Taymyr lying between Mys Pronchishcheva and the entrance to Khatangskiy Zaliv. The S shore is formed by that part of the coast lying between the entrance to Khatangskiy Zaliv and Mys Svyatoy Nos. The latter point is the SW entrance point of Proliv Dmitriya Lapteva.

The S shore of the Laptev Sea is indented by many gulfs and inlets. Five large rivers discharge through the continental shore of the Laptev Sea. These rivers form either extensive deltas surrounded by shallow water, or bars that are difficult to cross. The large quantities of warm water, which are carried by the rivers from the interior of Siberia into the Laptev Sea, have a favorable effect on the ice. Conversely, the freshwater discharge from these rivers lowers the salinity of the coastal waters and causes the rapid formation of ice in these areas at the end of the navigation season.

Winds—Weather.—During the navigation season or the summertime, when the area of slightly low pressure is distributed over the land mass S of Mys Chelyuskin, the prevailing winds over the S portion of the Laptev Sea are from the E or NE. Next in frequency are winds from the W and SW, which tend to increase toward October.

Winds from the NE and E, which sometimes blow for several days in succession, prevail from June to August. During the winter, both NE and SW winds prevail. The mean annual velocity of the wind is around 15 miles per hour. The highest velocity of the wind reported at Ostrov Genriyetty was attained by winds from SW and NE directions.

The most frequent winds have a velocity of 2 to 16 miles per hour. The strongest winds, with a velocity of 17 to 25 miles per hour, are about 16 per cent of all winds in the winter and about 10 per cent of all winds in the summer. Calms occur during the winter months, but seldom occur during the summer months.

Strong breezes and storms, with winds of 30 miles per hour or more, occur on about 2 to 4 days per month during the summer. Storms occur more frequently during the winter. On Ostrov Genriyetty, the SW wind reached a velocity of 54 miles per hour during the month of January. Storms usually last from 3 to 5 days in succession on the island, elsewhere they generally last from 1 to 2 days.

There are two seasons of the year in the vicinity of Ostrova Novosbirskiye. The summer season, with average temperatures above 0°C, occurs from June to September. The long winter season, with average temperatures below -10°C, occurs from November to April.

May and October, according to their mean temperatures, are months of transition from one season to another. General rises of temperature begin in April. The temperatures begin to drop in August and the cooling proceeds slowly and then more and more rapidly during September. The minimum temperatures reached are from -30°C to -40°C.

Ice.—Ice is observed year-round in the Laptev Sea, although a significant portion of the sea can be free of surface ice during the summer season. During the winter season, most of the Laptev Sea is covered by drifting ice with fast (stationary) ice dominating the areas close to the coast. Cumulative ice concentrations are usually found only over the N part of the sea. Icebergs and bergy bits can be encountered in the W part of the Kara Sea, mostly along the E coasts of the Ostrova Severnaya Zemlya and the Poluostrov Taymyr.

Ice cover over the Laptev Sea is constantly changing with respect to development and can be divided into two periods during the year. The first period is when the ice cover is forming and growing in coverage (between October and May) while the second period is the one of ice breakdown and melting (from June through September).

Structural icing is a significant threat to the safety of vessel navigation and can occur anytime during the year, although it is more prevalent during the autumn, winter, and early springtime. Structural icing is caused when water in the form of sea spray, melting snow, or any other kind of water falls on the vessel's exposed surface during subfreezing temperatures and freezes instantly to the ship's surface. This will cause a rapid accumulation of ice thickness on the ship's hull and significantly alter the vessel's stability.

Regulations.—For information on the Northern Sea Route, see paragraph 1.2.

Mys Pronchishcheva to Mys Krestovyy

7.2 Mys Pronchishcheva (77°33'N., 105°52'E.) is located 24 miles ESE of Mys Chelyuskin. A light, with a racon, is reported to be sometimes shown from a structure standing near the extremity of this point.

Mys Kharitona Lapteva is located 13 miles SSE of Mys Pronchishcheva and is marked by a cairn. Zaliv Terezy Klyavenes lies between this point and Mys Lassiniusa, 14 miles SSW, and a group of islands lies on the N side of its entrance. This inlet extends SW for 25 miles, but it has not been examined.

Zaliv Simsa (Zaliv Simms), entered close S of Mys Lassinius, has also not been examined. This inlet indents the coast for 14 miles in a general WSW direction.

Ostrova Komsomol'skoy Pravdy (77°22'N., 107°22'E.), a group consisting of two large islands and several smaller ones, lies off the NE side of Poluostrov Taymyr.

Ostrov Samuila, the northwesternmost of the two larger islands, lies with its SW extremity located 4 miles E of Mys

Kharitona Lapteva. Its surface consists of soggy tundra and ridges of rock, up to 50m high. A beacon is reported to stand on the NE extremity of this island. A polar station is reported to be situated near the SE side of the island.

Ostrov Bol'shoy, the largest island of the group, lies with its NW extremity located 15 miles E of Mys Kharitona Lapteva. A conspicuous hill, 68m high, rises near the middle of this island. A light is reported to be sometimes shown from a structure standing on the NE end of the island.

The remainder of the Ostrov Komsomol'skoy Pravdy group consists of several small islets, above-water rocks, and shoal patches.

Zaliv Faddeya (76°41'N., 107°28'E.) is entered between Mys Faddeya and Mys Ignatiya, 11 miles SSE, and indents the E side of Poluostrov Taymyr for a distance of 22 miles. Depths of 22 to 26m lie in the N part of the W side of this bay, which is the deepest section. Ostrova Faddeya, a group consisting of three islands, lies between 5 and 10 miles ENE of Mys Faddeya. The channel leading between this group and the point has a depth of 22m in the fairway. The islands are low and should be approached with care during thick weather.

Mys Krestovyy to Khatangskiy Zaliv

7.3 Mys Krestovyy (76°45'N., 109°32'E.) is located 26 miles E of Mys Ignatiya. A beacon, in the form of a cross, stands 3 miles SW of this point.

Ostrov Andreyalies 3 miles offshore, 19 miles ENE of the point. A light is shown from a framework tower, 8m high, standing on the N extremity of this island. A polar station was reported to be situated on the island.

Ostrova Petra (76°27'N., 113°00'E.), a group consisting of two low islands, lies SE of Ostrov Andreya. Ostrov Severnyy, the NW island, is 14 miles long and 7 miles wide at its N end. Petra-Severnyy Lighted Beacon, equipped with a radar reflector, is shown from a structure standing on the N extremity of this island; beacons are situated on the E and S sides.

Ostrov Yuzhnyy, the SE island, is smaller than Ostrov Severnyy and a shoal patch lies about 2 miles S of it. Petra-Yuzhnyy lighted beacon, equipped with a radar reflector, is shown from a structure standing on the E shore of this island.

Mys Psov (75°57'N., 113°49'E.) is located 26 miles S of Ostrov Yuzhnyy. Ostrov Psov, an islet, lies 2 miles NW of this point; a lighted beacon, equipped with a radar reflector, stands on its N end.

A shoal bank, with depths of less than 1.5m, extends about 8 miles NNW from the N side of this islet to about 4 miles off the mainland. A wreck, depth unknown, lies ESE of Ostrov Psov in position 75°35'N, 118°47'E.

7.4 Bukhta Pronchishchevoy (75°31'N., 113°35'E.) lies with its entrance located 22 miles S of Mys Psov. The entrance of this inlet is difficult to identify from seaward, but Gora Konus rises 12 miles WSW of it, at the S end of a chain of hills, and is prominent. This inlet indents the coast for 27 miles in a NW direction and its shores are high and steep.

The entrance to the inlet is narrowed by two above-water spits. Kosa Polyarnikov, the spit on the N side extends 0.8 mile seaward. Kosa Morzhovaya, the spit on the S side extends 1 mile seaward and is then prolonged by a sunken spit, with depths of less than 5m, which projects for a farther 0.8 mile. Between the outer end of this sunken spit and the N spit, the fairway is about 0.8 mile wide and has a depth of 18m. However, several shoals, with depths of 9 to 10m, lie within about 5 miles of the entrance.

Ice.—Fast ice will generally start forming in the bay between late September and early October, breaking up by June.

When there is ice in this inlet, vessels of moderate draft are recommended to anchor about 1 mile E of **Mys Nosok** (75°32'N., 113°25'E.), about 0.3 mile from the N shore. This berth lies out of the strength of the tidal currents and has depths of 7 to 11m. Small vessels can obtain anchorage close within the spit on the N side of the entrance.

Tides—Currents.—Tides in the bay are semi-diurnal. The average spring tidal range is 1.3m while at neap tide the average range is 0.5m. Tidal currents can reach a velocity of 3 knots. Strong whirlpools have been observed in the entrance to the bay and result in dangerous conditions for small vessels when drift ice is present.

For 15 miles above the entrance, the fairway has a least depth of 11m. Beacons are reported to stand on the extremities of the spits on each side of the entrance.

Anchorage.—Anchoring is only permitted off the buildings of the former polar station is located 800m N of Mys Nosok. Depths in this area are 6 to 18m.

Laguna Kul'dima indents the coast for 2.8 miles in a W direction and is entered 8 miles S of Bukhta Pronchishchevoy. The entrance to this cove is narrowed to a width of about 200m by extensive shingle spits extending from each side. Laguna Kul'dima is very shallow and accessible only to launches, even at HW.

Khatangskiy Zaliv

7.5 Khatangskiy Zaliv (74°28'N., 112°47'E.), the estuary of the Rika Khatanga and the most important gulf in the Laptev Sea, is entered between Mys Tsvetkova in the N and Mys Paksa, 42 miles SE. There are three islands in the entrance with the largest of these being Ostrov Bol'shoy Begichev. Khatangskiy Zaliv extends for 120 miles in a general SW direction to Mys Bol'shaya Korga, where the river proper is entered. Both sides of this estuary are extensively indented and in many places there are sandy beaches bordered by coastal banks. Reka Khatanga gives access to the port of Khatanga which is situated 100 miles up river.

Many animals including wild reindeer, arctic foxes, wolves, arctic hare, migrating waterfowl, and an occasional polar bear have been observed along the shores of the estuary. Walrus has also been observed in the channel.

Winds—Weather.—Winds from the NE and E prevail from June through September, but periods of W and SW winds becoming more frequent during September. The average wind speeds are Beaufort Force 3 to 4 although storm conditions reaching Force 9 to 10 can occur during the pas-

sage of a strong low pressure system. Fog is most common during July and August, prevailing between 10 and 21 days of each month.

Ice.—Formation of young ice can occur as early as the first week of September, but the average is the first of October. Fast ice will start forming by the middle of November with ice thickness reaching 0.2m to 0.25m throughout the estuary. Vessels should not enter the estuary during the winter.

Tides—Currents.—The largest average spring tidal range found along the Northern Sea Route is found in the waters of Khatangskiy Zaliv, with the average spring tidal range reaching 2.6m in places.

Tidal currents are semi-diurnal, reaching a speed of 2.8 knots occurring 3 hours after the commencement of the flood tide and 2 hours after commencement of ebb tide.

Depths—Limitations.—The depths in the estuary are very uneven. In the outer part near the NW side, there is a channel, 3 to 4 miles wide, which has depths of 20 to 24m as far as Mys Otmelyy, 50 miles within the N entrance. Then, along an additional 50 mile stretch, there are depths of 14 to 18m in the fairway. However, from this position to the head of the estuary, there are depths of less than 10m. The depths in the SE part of the estuary do not exceed 6m and there are places with depths of less than 2.7m.

Pilotage.—Pilotage is compulsory for all ocean-going vessels from the entrance buoy through the waters of Khatangskiy Zaliv and the navigable portion of Reka Khatanga. Pilots are provided by the Khatanga Hydro ic Station.

Directions.—Khatangskiy Zaliv is entered from the NE by passing N of Ostrov Preobrazheniya through Proliv Severnyy, which separates Poluostrov Taymyr from Ostrov Bol'shoy Begichev. This is the preferred approach. An alternate approach to Khatangskiy Zaliv is to pass S of Ostrov Bol'shoy Begichev through Proliv Vostochnny.

7.6 Ostrov Preobrazheniya (74°40'N., 112°55'E.) is the outermost island lying in the entrance of Proliv Severnyy; Mys Nord marks the N end of the island. Preobrazheniya Lighted Beacon stands on Mys Nord. Vstrechnaya Beacon stands on the E coast of the island 2.1 miles S of Mys Nord. The E and NE sides of this island consist of rocky cliffs which rise steeply from the sea. A former polar station stands on the N side of the island. Shingle spits extend up to 0.8 mile from the N and S ends of the island. Cargo is discharged from an anchorage about 300m offshore from the former polar station, in depths of 7 to 8m, mud and scattered pebbles.

7.7 Ostrov Bol'shoy Begichev, the largest island in the entrance to Khatangskiy Zaliv, lies SW of Ostrov Preobrazheniya. Mys Opasnyy, 13m high, marks the NW extremity of the island and is conspicuous from the NE and SW. Opasnyy Lighted Beacon is shown from a structure standing on a coastal cliff 0.5 mile E of Mys Opasnyy. Mys Vostochnyy is located on the E end of the island; an unlighted beacon is shown from this cape.

Mys Medvezhiy marks the S extremity of this island and serves as an extremely sharp landmark from a long distance to the approach to Proliv Vostochnny. Medvezhiy Lighted Beacon stands on a cliff 0.8 mile NNE of Mys Medvezhiy. Ostrov Bol'shoy Begichev can be passed on the N side through Proliv Severnyy and on the S side through Proliv Vostochnny. Proliv Severnyy is the preferred passage into Khatangskiy Zaliv, especially for deeper draft vessels.

7.8 Proliv Severnyy has depths of up to 40m with the width of the deepwater channel, having depths in excess of 20m, ranging between 4 and 5 miles. Currents in Proliv Severnyy consistently set NE with a velocity of 0.3 knot. Spring tidal currents can reach speeds of 2.6 knots during a calm and up to 3.1 knots during prolonged N winds. The current velocity decreases to 2.1 knots during prolonged S winds.

7.9 Proliv Vostochnyy has widely variable depths throughout it's length, ranging from 15 to 40m in the E part, shoaling to 7 to 9m in the central part, then between 5m and 25m in the W part. A fairway with a minimum depth of 5.8m leads through the entire strait. Tides in Proliv Vostochnny are semi-diurnal, with the spring range reaching 2.6m in places. Strong tidal and wind driven currents are strong and aligned in the same direction as the strait, reaching 2.8 knots during flood and ebb tides. In addition to the tidal currents, a permanent current of 0.4 knot sets E. The sides of the strait are marked by lighted and unlighted beacons, some with radar reflectors.

7.10 Ostrov Malyy Begicheva lies 5 miles W of the SW extremity of Ostrov Bol'shoy Begichev. The channel leading between these two islands is foul and should not be used. Shoals, with depths of less than 5m, are reported to lie within 3 miles of this island; a light is shown from a structure standing on its S extremity. Small vessels with drafts of up to 4m can anchor, in a depth of 5m, about 0.2 mile off the SW side of the island. Anchorage is available within the strait in Bukhta Nordvik or Bukhta Otmelaya, however, both anchorages are open to winds from any direction.

7.11 Bukhta Nordvik (73°50'N., 112°15'E.) indents the S shore of Proliv Vostochnny and is entered between Mys Paksa and Mys Neftyanoy, the E extremity of Poluostrov Yuryung-Tumus, 21 miles W.

Paksa Lighted Beacon is shown from a structure standing on Mys Paksa. Anchorage can be taken 1 to 2 miles SSW of Mys Paksa at distances of 0.6 to 0.8 mile from the coast, in depths of 8 to 9m. This anchorage is sheltered from E winds and should be approached from the N, taking care not to enter waters any shallower than 7m.

Depths of 5 to 10m are found in the central part of the bay. A narrow trough with depths exceeding 10m extends into the bay from the N for a short distance from an area 4 miles E of Poluostrov Uryung-Tumus. Depths exceeding 10m are also found to extend W from Mys Paksa to the NE part of the bay. The S part of the bay has depths of less than 4m extending up to 10 miles from the coast.

The conspicuous buildings of a radio station are reported to be situated on high ground near the NE extremity of Poluostrov Yuryung-Tumus. Two structures, which resemble beacons, stand in the interior, 2 miles from the radio station.

Mys Kyarga is the outer extremity of a low spit which extends 1 mile S from the S side of Poluostrov Yuryung-Tumus. A cove is formed on the W side of this spit. Small vessels can obtain sheltered anchorage, in a depth of 3m, off the entrance to this cove. A range, formed by beacons, is reported to mark the approach, on a course of 253°, to this roadstead.

Poluostrov Khara-Tumus (73°50'N., 110°20'E.) is low and lies on the SE side of the central part of Khatangskiy Zaliv. The shores of this peninsula are intersected by numerous streams. Mys Otmelyy, its NW extremity, is 30m high and rises steeply in a sandy slope. A drying shoal extends for about 0.8 mile seaward from the N side of this point. A light is shown from a structure, 13m high, standing on high ground, 2 miles SSW of this point.

Mys Priglubyy, 57m high and marked by a beacon, is located 13 miles SW of Mys Otmelyy.

A light is shown from a structure, 10m high, standing on the coast, 2.5 miles N of this point. A polar station, reported to be inhabited throughout the year, is situated at the point. A spit, with depths of 1.8m at its outer edge, extends about 4.5 miles SE from the point.

7.12 Bukhta Kozhevnikova (73°36'N., 109°30'E.) is entered between Mys Kosistyy and Mys Kul'cha, 11 miles SW, and indents the coast for 25 miles in an E direction. The outer part of this bay is 10 miles wide and its inner part has a least width of 4 miles. Reka Tikyan-Yuryakh flows into the head of the bay.

Mys Kosistyy, the NE entrance point of Bukhta Kozhevnikova, is located 10 miles SSE of Mys Priglubyy. A shoal area leads N from Mys Kosistyy, the end of which is marked by the Kosistyy Leading Beacons, which stand 2.5 miles NW of Mys Kosistyy.

Mys Kosistyy is formed by the low end of a penisula, 29m high, which extends 2 miles SE from Poluostrov Khara-Tumus. The village of Kosistyy is situated on this peninsula, with several dozen ruined houses, with the most conspicuous one being a white three-story former airport office building with a small tower on the top. A quay is located on the E side of the peninsula about 400m NNW of Mys Kosistyy for use by barges and launches. An underwater spit with depths of less than 4m extends 4.3 miles SE of Mys Kosistyy. Cargo can be discharged from an anchorage established 2.7 miles WNW of Mys Kosistyy, in depths of 7 to 9m, mud.

Mys Kul'cha consists of high sandy cliffs on its N and W sides. A lighted beacon equipped with a radar reflector is shown from a structure, 11m high, standing on this point. A sandy spit, which dries, extends 2 miles N and NE from the point.

Ice begins forming in the bay as early as mid-September and will be found along the shore by the end of September. The bay becomes free of ice by the end of July.

Lighted and unlighted beacons with ranges mark hazards and recommended courses within the bay, but are removed during the ice season.

Numerous banks and spits lie within this bay and vessels should not attempt to enter without local knowledge. Within 4 miles of the head, the depths decrease to less than 2.5m. The village of Kozhevnikova is situated on the S shore near the head of the bay.

Tides within the bay are semi-diurnal with the ebb tide lasting longer than the flood. the average spring tide range is 0.8m; the average neap range is 0.3m. Tidal currents set ENE during the flood and WSW during ebb tide, with velocities of 0.5 to 2 knots.

Poselok Nordvikstroya lies on the S shore of the bay between Mys Il'ya, located 15 miles E of Mys Kul'cha, and Mys Ebyarikan, 5.5 miles E. It consists of several buildings situated on low ground at the foot of two hummocks. A discharging base lies at Mys Ebyarikan and consists of a landing stage, several dwellings, and a number of warehouses. Anchorage can be taken, in depths of 5 to 7m, mud and sand, about 2 miles NW of Mys Il'ya. Strong tidal currents have an adverse effect on this anchorage. Anchorage can also be taken, in a depth of 15m, about 2.5 miles NE of Mys Ebyarikan.

7.13 Mys Portovyy (73°38'N., 110°28'E.) projects from the shore of Bukhta Kozhevnikova 2.5 miles NE of Mys Eberikyan and rises to about 13m in height. Portovyy Beacon, equipped with a radar reflector, is located on the point. A shoal that covers and uncovers extends 0.5 mile N of Mys Portovyy.

An anchorage area for deeper draft vessels is located 1 mile NNW of Mys Portovyy, in depths of 13 to15m. This anchorage is well-sheltered from winds and seas and can be used for trans-shipment of cargo to small craft able to transit Reka Khatanga.

7.14 Mys Astronomicheskiy (74°10'N., 109°49'E.) is located on the W side of Khatangskiy Zaliv, 40 miles SSW of Mys Sibirskiy. A light is shown from a framework tower, 15m high, standing on this point and a beacon is situated on the coast, 19 miles SW of it.

Kosa Gol'gina, a shingle spit, extends about 2 miles SW from the general line of the coast, 41 miles SW of Mys Astronomicheskiy. A beacon stands on the coast, 11.5 miles NE of this spit.

Mys Gusinyy (73°37'N., 107°47'E.) projects only slightly from the line of the coast, 5.5 miles SW of the outer end of Kosa Gol'gina. A conspicuous hummock rises above the cliffs near this point. There are accumulations of driftwood at the outward extension of the point.

A conspicuous hill, surmounted by a beacon, stands 23 miles SW of Mys Gusinyy and marks the N entrance point of Reka Khatanga.

Bukhta Syndassko, lying on the SE side of Khatangskiy Zaliv, is entered 26 miles SW of Mys Kul'cha. Depths of 5 to 6m lie in the approaches to this cove, but its entrance is obstructed by shoals. Depths within the bay do not exceed 1m except for a narrow trough extending 1 mile SE from the entrance, where depths can reach 5m. Constant silting from rivers cause repeated shoaling inside Bukhta Syndassko. Seams of coal, visible from seaward, are located in the high cliffs of its S entrance point.

7.15 Reka Khatanga (73°00'N., 106°00'E.) is fronted by a bar which extends almost across its entire entrance. The bar has general depths of 5 to 6m over it and numerous shoals, with depths of 0.6 to 3m, lie close W of it. The entrance to Reka Khatanga is between Mys Povorotnyy and Mys Bol'shaya Korga.

Reka Khatanga is open to ocean-going vessels for a distance of 114 miles from the bar to Port Khatanga through a fairway that is only about 200m wide and marked by lighted buoys. The minimum depth in the fairway is 4.3m but can increase to 4.8m or decrease to 3.8m, depending on weather. Exact depths for the fairway can be obtained from the pilot vessel and from the Khatanga Hydro ic Station. This fairway continues for an additional 9 miles upriver to the confluence of the Reka Kheta and Reka Kotuy, but only river-going vessels use this portion of the fairway. Depths within Reka Khatanga vary from 5 to 20m.

The average tidal range at Mys Mayaya Korga, 4.3 miles SSW of Mys Bol'shaya Korga, is 0.9m decreasing to 0.1m at Port Khatanga. Tidal currents within Reka Khatanga can become as strong as 1.5m during the spring flood.

Port Khatanga (71°59'N., 102°28'E.) is a commercial seaport located on the right bank of Reka Khatanga. The port has five berths, numbered from SW to NE. Berth Nos. 1, 2, and 3, with depths of 2.1m to 2.5m alongside, are for river-going vessels. Berth No. 4 and Berth No. 5, with depths of 5.2m alongside, are for ocean-going vessels.

A pier, 80m in length, extends from the coastline about 260m E of the NE end of Berth No. 4. An oil pipeline runs along the shore to a pier that extends from the coastline about 760m ENE of the NE end of Berth No. 4. Two small piers extending the coastline, 120m and 680m, respectively, SW of the SW end of Berth No. 1.

Pilotage.—During the navigational period from June through September, a pilot vessel from the Khatanga Hydrographic Station with a pilot on board is located at the receiving buoy 10.5 miles NE of Mys Knyazevka (73°10'N., 107°08'E.) and the use of a pilot is compulsory. Requests for pilotage should be made to the Khatanga Hydrographic Station and to the master of the pilot vessel 48 hours and 24 hours before arrival at the receiving buoy, then confirmed 4 hours before arrival at this buoy. The pilot boarding position will be determined by consultation with the pilot vessel and the prevailing weather conditions. The use of VHF channel 16 is recommended for communications.

Contact Information.—The port can be contacted (call sign: Radio Khatanga) on VHF channel 67.

The Harbormaster and Port Control can be contacted on VHF channels 14 and 16.

Khatangskiy Zaliv to Reka Lena

7.16 Anabarskiy Zaliv (73°45'N., 114°05'E.) is entered between Mys Paksa and a point, 41 miles ESE. Reka Anabar flows into the head of this bay, abreast Mys Kohogo.

Anabarskiy Zaliv is comparatively shallow over most of its area, with depths mostly less than 10m. An extensive area of shallows, with depths less than 5m, can be found in the middle of the bay closer to the W shore, with some areas uncovering during strong S winds. The main channel, used by ocean-going vessels, is located E of this area of shallows with depths of 6 to 7m and is marked by a range line of beacons.

The sea bed of Anabarskiy Zaliv is mainly mud, with sand in the shoal areas. Stone is found on the sea bed in the vicinity of Mys Paksa. Anchorages are available in Anabarskiy Zaliv, but they are open to the sea. Vessels can shelter from W winds in the area of Poluostrov Nordvik and from S winds by anchoring E of Mys Khorgo.

Reka Anabar empties into Anabarskiy Zaliv in the vicinity of Mys Khorgo (73°30'N., 113°30'E.). Reka Anabar can be used by ocean-going vessels for a short distance upriver to a tributary, Reka Suolama (73°13'N., 113°29'E.). Smaller vessels can continue about 25 to 30 miles farther upriver to the settlement of Yuryung-Khaya.

The fairway channel of Reka Anabar is marked by buoys during the navigational season all the way to the settlement of Yuryung-Khaya. Depths vary from 6 to 16m until Reka Suolama, then decrease to about 3m until the settlement of Yuryung-Khaya.

The spring tidal range can be as high as 2.2m while the neap range is only 0.7m, with the effects of the tidal ranges being felt as far as 124 miles upriver.

Ice begins to form over the river from mid to late-September with the mouth becoming ice covered by early October. The spring breakup occurs throughout the month of June.

During the navigation season, pilotage for ocean-going vessels in Reka Anabar is compulsory; pilots board from a pilot launch in the vicinity of Mys Khorgo. See paragraph 7.15 for details on the pilot authority and contacting the pilots.

Mys Lygyy (73°44'N., 115°50'E.) is located 13 miles E of the E entrance point of the bay. A lighted beacon stands on the E side of this point. The coast trends E for 8 miles from this point to the mouth of Reka Urasalakh and consists of mud cliffs up to 30m high.

Bukhta Pyatyoka, a small bight, lies 23 miles WSW of Mys Lygyy. Mys Terpyay-Tumus is located 25 miles E of this bight and is surmounted by a beacon. It is reported that a beacon also stands about 2 miles NW of the point.

7.17 Ostrov Peschanyy (74°20'N., 116°00'E.), a horseshoe-shaped island, lies 36 miles N of Mys Lygyy and is 2m high. A light is reported to be shown from a structure standing on the E side of this island.

Ostrov Osushnoy, a low islet, lies 42 miles NNE of Mys Terpyay-Tumus and is 1 mile wide. A shoal patch, with a least depth of 7.3m, lies between 10 and 15 miles NNE of the islet. Shoals, with depths of 10 and 10.7m, lie about 27 and 48 miles, respectively, NE of the islet. An icebreaker reported (1938) sighting breakers about 31 miles E of the islet and depths of 5 to 7m within 5 miles NNE of them.

Olenekskiy Zaliv

7.18 Olenekskiy Zaliv (73°20'N., 121°00'E.), a large bay, is entered between Mys Terpyay-Tumus and Mys Khara-Tumus, 70 miles E. The surveys of this bay and its approaches

are very incomplete and great care is necessary when navigating in this vicinity. Ice may be encountered within the bay throughout the year.

A former polar station is still standing on the steep coast of Mys Terpyay-Tumsa (73°33'N., 118°44'E.). Anchorage can be taken about 2.5 miles NE of the cape, in depths of 6m, muddy sand.

Ostrov Leykina (74°05'N., 120°28'E.) is a low and sand covered island that lies in the N approach to Olenekskiy Zaliv. The island has shoal area with depths of less than 10m that extend up to 5 miles outwards from the shoreline. Since the island is eroding constantly, it is covered by water during the navigational season in depths of 0.1 to 0.2m, the location being marked by the numerous breakers around it.

Olenekskiy Zaliv has principal depths of 10 to 14m, decreasing gradually toward the shoreline. A trough, passing W of Ostrova Leykina, has depths of 20 to 29m and extends from the sea towards the central part of the bay.

Ice begins forming in Olenekskiy Zaliv by early October, with the breakup beginning in June and final clearing occurring the second week of July.

Vessels can obtain anchorage 8 miles W of Mys Ystannakh-Khocho, in depths of 9 to 10m. During periods of E winds, anchorage can be taken 5 miles from the E shore of the bay.

Reka Olenyok discharges into the SW part of Olenekskiy Zaliv; it is 1,422 miles long of which 621 miles are navigable. Depths in the fairway at the mouth of the river are 8 to 20m while in the river they are only about 2m.

A narrow channel leads across the bar, but it is difficult to find due to the constant shifting of its position. The navigation season for Reka Olenyok commences during mid to late-June, and ends by October 1. Currents close to the entrance to the river attain a velocity of 1.6 knots, increasing to 3.3 knots during the ebb. Reka Olenyok has not been adequately surveyed and it is not recommended to attempt transit without local knowledge.

Ostrov Eppet (73°06'N., 119°21'E.), the westernmost island fronting the river entrance, is low, sandy, and covered with grass. Ostrov Dzhanglakh, the easternmost and largest island, appears from seaward as a headland. A sandy bank extends about 8 miles E from this island.

Reka Lena Delta

7.19 The Reka Lena delta is located N and E of Reka Lena, extending from Mys Bykov to Mys Ulakhankrest, 145 miles NW. This delta is little known and local knowledge is essential. The N and NW approaches to the delta are shallow with depths of 18m lying up to 95 miles NNW of the NW side. The ice remains frozen to the bottom on the coastal flats for a considerable time after it has broken up further seaward. Due to the deposits brought down by the river and the effect of the currents, the depths lying off the mouths of the various arms of the delta are very irregular. The boundary between the sea water and the river water is sharply marked by a change in color and, frequently, by strips of white foam.

The N part of the delta freezes over at the end of September and is usually clear by the end of June. The S part of the delta generally clears earlier than the N part. Large amounts of driftwood may be encountered off the E side of the delta.

There are virtually no conspicuous landmarks in the area of the Reka Lena delta, making any navigation through it very difficult. Most ocean-going vessels pass around to the E of the delta heading toward Port Tiksi. Frequent periods of dense fog occur during June and July in the delta. Depths over most of the delta vary from 3 to 4m, with numerous shoal areas.

Reka Lena Delta—West Side

7.20 **Ostrov Erge-Muora-Sisse** (73°20'N., 124°30'E.), a large island, is 63 miles long and 50 miles wide. It forms the major portion of the NW part of the Reka Lena delta. This island consists of a plateau of moderate elevation enclosing numerous lakes. Its sandy and indented W side is formed by cliffs, 21m high, which are backed by hilly ridges.

Olenekskaya Protoka leads into Reka Lena from the W and passes between the delta and the mainland. The entrance to this channel lies in the SE part of Olenekskiy Zaliv and is encumbered by numerous islands, islets, and shoals. Little is known about this entrance, but a fairway, with a least depth of 1.5m, was reported to lead into it. Local knowledge is essential.

Reka Lena Delta—North Side

7.21 From Mys Khara-Tumus, the N side of Ostrov Erge-Muora-Sisse trends NE for 17 miles to the NE extremity of a narrow projection off which lie a group of islets. From this projection, the coast trends E for 16 miles to Mys Uguk, on which a refuge hut stands. Several islands lie off this stretch of coast, the most important being Ostrov Dunay.

Ostrova Dunay (73°53'N., 124°33'E.) is a group of sandy islands, many of which are marshes or swamps, all with indented coastlines. Small freshwater lakes are located on several of the islands. The height of all the islands does not exceed 13m, with most being only 3 to 4m high. There is a large amount of driftwood along the N coasts of these islands. The sea bed in the N approaches to Ostrova Dunay is mostly mud and sand, with poor holding ground for anchoring.

A shoal area with depths of less than 4m extends out from the N coast of Ostrov Dzhiyo-Byol'kyoy, the northernmost island in Ostrova Dunay, for a distance of 600m. The Ostrova Dunay polar station is located on the central part of Ostrov Dzhiyo-Byol'kyoy, 250m from the shoreline. Underwater spits extend along the shore at a distance of up to 200m from the shore in the vicinity of the polar station. Breakers can be observed over these spits. A light is shown from the S part of the polar station.

Anchorage is available 0.8 to 0.9 mile offshore from the polar station, in depths of 6 to 6.5m, soft mud, for vessels with a maximum draft of 5m.

Caution.—A wreck, with a depth of 3m, lies 2.9 miles NE of the W end of Ostrov Dzhiyo-Byol'kyoy.

Ostrov Ayeros'yemka, a crescent-shaped island, lies 21 miles WSW of the W extremity of Ostrov Dunay. A lighted

beacon stands on the N end of this island. A radiobeacon is reported to be situated at the beacon.

Ostrov Samoleta, also crescent-shaped, is 4 miles long and lies with its N end located 1 mile S of Ostrov Ayeros'yemka.

7.22 **Mys Karstan** (73°44'N., 125°05'E.) is located 9 miles E of Mys Uguk. Between this point and Mys Doktorskiy, 25 miles ESE, the N side of the Lena delta recedes to form an extensive but shallow bight. Ostrov Amerika-Kuba-Aryta, the largest of several islands in this vicinity, lies in the middle of the bight. It is reported that a refuge hut is situated on the N end of this island and a light is shown from a structure standing close to it.

Bukhta Tumatskiy, an inlet, is entered between Mys Doktorskiy and Mys Lapteva, 14 miles ESE. Silt, brought down by several channels at the head, has formed numerous sandy islets and extensive flats within this inlet. It is reported that a channel, which winds across the flats between the low sandy islets, can be used by vessels, with drafts of up to 1.5m, under ordinary circumstances. Vessels, with greater drafts, can only enter under favorable conditions of wind and tide. Winds from the N and W raise the water level in the inlet by up to 1.6m and winds from the S and E have the opposite effect. The fairway channel is reported to be marked by beacons, but local knowledge is essential.

Reka Lena Delta—Northeast and East Sides

7.23 From Mys Lapteva, the NE side of the delta trends for 65 miles SE to the N entrance point of Trofimovskaya Protoka. The entrance to Protoka De Longa lies 20 miles SE of Mys Lapteva. An island, 65 miles long, lies between the above channels. Mys Barkin-Stan lies 65 miles SE of Mys Lapteva.

Ostrov Sagyllakh-Ary (73°07'N., 129°00'E.), a small island, lies in the entrance to Protoka Barchak-Ugye. A storehouse, with a large mast, and a refuge hut are reported to be situated at the N side of this island.

Trofimovskaya Protoka is one of the principal channels trending W through the E side of the delta. However, little is known about this channel and entry without local knowledge should not be attempted.

The E side of the Lena delta lying between the entrance to Trofimovskaya Protoka and the entrance to Byskovskaya Protoka, 40 miles SSW, consists of numerous islands and islets which are bordered by extensive sand flats and separated by shallow channels.

Bykovskaya Protoka

7.24 **Bykovskaya Protoka** (72°03'N., 128°35'E.), the southernmost and largest of the channels leading through the Reka Lena delta, is entered between Mys Bykov, the N extremity of Poluostrov Bykovskiy, and the numerous small islands and islets lying in the E part of the delta. This channel trends for 50 miles in a general NW direction to the head of the delta.

Poluostrov Bykovskiy (71°47'N., 129°23'E.), consisting of a narrow strip of land, trends SSE from Mys Bykov for 20 miles to Mys Muostakh. Its S part, located W of Mys Muostakh, is joined to the mainland by an isthmus, which is 10 miles long and 2 to 4 miles wide.

Mys Bykov (72°00'N., 129°06'E.), located at the N end of Poluostrov Bykovskiy, 8m in height, is high and conspicuous and marks the entrance to Reka Lena. A light is shown from a pylon, 10m high, standing on this point. A fishing village along with a polar station, with a number of wooden buildings, is situated on the point and a prominent cliff stands 4 miles SE of it.

A quay, in the form of a submerged metal lighter, in the area of the fishing village can accommodate vessels with a maximum draft of 2m. Both ocean-going and river-going vessels can obtain anchorage between 0.3 and 0.5 mile NW of Mys Bykov, in depths of 6 to10m.

Five beacons stand along Poluostrov Bykovskiy, between Mys Bykov and Mys Muostakh, and several small islets and shoals lie off the seaward side of this peninsula. A village is situated on the seaward side of the peninsula, 2 miles SSE of Mys Bykov.

The inhabitants are reported to collect driftwood and, in order to dry it, stack it in piles which, from a distance, may be mistaken for beacons.

The navigation season in this entire area lasts from the second half of July to the end of September.

Zaliv Neyelova, lying W of the N part of Poluostrov Bykovskiy, is entered between Mys Bykov and Mys Tuuru, 11 miles WNW, and recedes for 17 miles in a S direction. Numerous islands lie in the NW part of this gulf. Two channels, the deepest having a depth of 4.6m, lead into the gulf and are marked by beacons and spar buoys. Local knowledge is essential.

Caution.—A submerged crane, depth unknown, is located 1.2 miles NE of Mys Bykov. Another underwater hazard, a tractor, lies 5.9 miles S of Mys Bykov, in depths of 3.9m in the W part of the channel, Zaliv Neyelova, which leads upriver from the entrance.

Reka Lena

7.25 Reka Lena rises in the NW slope of the Baikal Mountains, 20 miles from Ozero Baikal, and flows into the Arctic Ocean through several branches. Reka Lena is the largest waterway of the Asiatic part of Russia. Shipping on Reka Lena is carried out from Mys Bykov to the settlement of Ust'-Kut, covering a distance of 2,236 miles. Reka Ust'-Altan, a major tributary some 1,500 miles long, joins the river about 818 miles upstream from its entrance.

Ice.—Reka Lena is covered by ice for most of the year, resulting in a very short navigation season. Ice formation usually begins by the first of October and does not break up until the first of July. There are some years when the river remains ice covered all 12 months.

Upon the breaking up of the winter ice in the upper portions of Reka Lena, great blocks of ice are carried down by floods and piled up on the delta. These blocks often tear away

huge portions of the delta banks so as to alter completely the navigable channels.

Depths—Limitations.—During the navigation season, vessels with drafts up to 4m are able to enter the river and navigate upriver for approximately 2,140 miles to Selenie Ust'-Kut.

The main channel of Reka Lena, as well as the many channels through its delta, alters its course at many places. According to the reports of pilots, this tendency is especially notice-able in that section lying between Yakutsk and the confluence of Reka Ust'-Altan. This circumstance, as well as the large number of branches, which in some years can be navigated and in others cannot, together with changeable depths and shifting bars present considerable difficulty to the navigator, so that the services of an experienced river pilot are necessary.

Yakutsk (62°05'N., 129°35'E.) is one of many river stations along the length of the Reka Lena and stands about 100 miles above the mouth of Rika Ust'-Altan. This town is of some commercial importance being the center for the export of furs. Berthage consists of old barges moored alongside the river bank.

Guba Buorkhaya

7.26 Guba Buorkhaya (Guba Borkhaya) (71°25'N., 131°05'E.) indents the S shore of the Laptev Sea close E of the Reka Lena delta. It is entered between Mys Muostakh and Mys Buorkhaya, 63 miles ENE, and extends for 62 miles in a S direction. The outer part of this gulf has depths of 13 to 18m, but the head, up to 20 miles offshore, is comparatively shallow.

Mys Buorkhaya (71°58'N., 132°45'E.) is a conspicuous headland. A light is shown from a framework tower, 11m high, standing on this point. A light is also shown from a framework tower, 10m high, standing on Mys Muostakh.

Bukhta Tiksi (71°39'N., 129°08'E.), an inlet, lies in the NW part of the gulf and is entered between Mys Muostakh and Mys Kosistyy, 9.8 miles SW. A steep-to shingle spit projects seaward from a point located 0.5 mile N of Mys Kosistyy. The winds have a pronounced effect on the depths within this inlet. Strong N and E winds raise the water level and S and W winds lower it. Due entirely to wind action, a depth variation of 1.2m has been recorded off Mys Muostakh.

Ostrov Muostakh lies in the approach to Bukhta Tiksi, 8 miles SE of Mys Muostakh. This island lies on the S end of a shoal area, with depths of less than 5m, which extends SE from Mys Muostakh. The E limit of this shoal area has not been determined. A narrow spit, which dries in places, extends S for about 3 miles from the S extremity of the island. Lights are shown from structures standing on the S part of the island and on the S extremity of the spit. A fairway channel, with a least depth of 4.5m, leads through the sandy shoals which lie between this island and Mys Muostakh. The island and the shoal area on which it lies afford some protection to the inlet from the E.

Regulations.—A Traffic Separation Scheme (TSS), consisting of two traffic lanes and a separation line, has been established in Bukhta Tiksi. The Tiksi lighted beacons forming the approach range line also form the separation line for the westbound section of the TSS. This TSS has been established by the government of Russia. Although this TSS has not been adopted by the IMO, mariners are advised to comply with Rule 10 of the International Regulations for Preventing Collisions at Sea (1972).

Ostrova Karau'nye Kami (71°35'N., 129°08'E.), a group consisting of several above-water rocks, lies 8.9 miles SSW of Mys Muostakh and 4.5 miles SE of Mys Kosistyy. The largest of these rocks is marked by a lighted beacon. Ostrov Brusneva lies in the middle of the inlet with its S extremity located 4 miles NW of Mys Kosistyy. A narrow, sunken ridge joins this island to the NW corner of the inlet. A lighted beacon stands on the island.

Large vessels can anchor, in depths of 7 to 8m, about 1 mile S or SW of Ostrov Brusneva. A lighted range, bearing 261°, indicates the approach to this roadstead. Small vessels can obtain excellent anchorage, with shelter from E winds, in depths of 5 to 6m, within the NE section of the inner part of this inlet and about 0.3 mile off Ostrov Brusneva. The bottom in this entire area consists of gray mud.

7.27 Tiksi (71°38'N., 128°52'E.) (World Port Index No. 62670) lies on the W side of Bukhta Tiksi and is an important port for the transshipment of cargo between the river traffic from Reka Lena and the ocean traffic from the Northern Sea Route.

Winds—Weather.—The prevailing winds in the bay in June and July are N, NE, and E; in August, the frequency of these winds decreases and the frequency of W, SW, and S winds increases; these are the prevailing winds from September. The average wind speed in the navigational period is 8-10 knots (4–5 m/s), and the maximum wind speed at this time is 68 knots (35 m/s). The maximum wind speed in winter is more than 78 knots (40 m/s). The average number of days with storms in the navigational period is 1–2 days per month, and only in October does this reach 5 days per month. Short-lived bora-type local winds sometimes occur.

Winds from NE to SE create a cyclonic (counterclockwise) circulation of the waters in Bukhta Tiksi, while winds from W to NNE create an anticyclonic (clockwise) circulation. A circulation of cyclonic character is observed during winds from W to NNE to the S of Ostrov Brusneva.

The mean annual air temperature is -13° C. In the warmest months, July and August, of the navigation period, the mean temperature is between 7 and 8° C, with usually about 108 days with temperatures above freezing. The relative humidity is normally about 82%.

Ice.—The port is open for vessels without icebreaker assistance for about 60 days between the end of July and the end of September, which is considered the summer navigation period. Vessels can access the port using icebreakers for 2 to 3 additional months on either side of the summer navigation season.

Young ice forms within the area of Tiksi beginning on average on September 29, between September 4 and October 25. After this, the movement of vessels to the port is difficult

and over 3 to 5 days becomes possible only with icebreaker assistance. The mean growth of fast-ice is about 1cm per day, reaching a maximum thickness from 190 to 240cm.

Intense thawing on the ice usually begins early June and by mid-June the thickness is reduced to about 85cm. The water area of the port is clear of drift ice on average by July 24. After the clearance, the drift ice is not carried very far away.

Tides—Currents.—In Bukhta Tiksi, the variation in sea level is mainly due to surges and tides. Surge variations in the bay attain a great magnitude and to a significant degree influence navigation conditions. The greatest surges occur in the period from July to October; the high levels occur under prevailing W and NW winds while the low levels occur under S and SE winds.

The maximum range in sea level over the year is 4.3m. The main daily level, with a strong negative surge, may be lower than the average level by 1.6m and, when there is a strong positive surge, the level may be increased by 1.3m. Tides in the bay are semi-diurnal. The mean spring range is about 0.5m; the mean neap range is about 0.1m.

Depths—Limitations.—The Tiksi Commercial Seaport is comprised of a number of berths along each side and ends of five piers as well as three more located in between the piers and two berths located S of the pier with Berths No. 13 and 14 on it. Starting with a Ship Repair berth they are arranged and numbered, as listed, from W to E around the cape located N of the town of Tiksi. See the table titled **Tiksi—Berth Information** for the listed berths and their details.

Tiksi—Berth Information			
Berth	**Length**	**Depth**	**Remarks**
Tiksi Sea Port Terminal			
No. 1	135m	5.2m	Containers and general cargo.
No. 2	130m	6.0m	General cargo.
No. 3	132m	5.6m	General cargo.
No. 4	108m	3.8m	General cargo.
No. 11	225m	5.8m	General cargo.
No. 12	225m	5.8m	General cargo and timber.
No. 13	225m	5.8m	General cargo.
No. 14	225m	5.8m	General cargo.
Tiksi Oil Terminal			
No. 10	88m	3.7m	Petroleum products.

Aspect.—Bukhta Tiksi is located in the SE part of the Laptev Sea. The NE entrance promontory of the bay is Mys Muostakh (71°42'N., 129°36'E.), while the SW promontory, Mys Kosistyy, lies 9.4 miles to the SW. Ostrov Muostakh lies to the SE of the bay and shields it from the sea. The Ostrovki Karaul'nyye Kamni are situated off the actual entrance to the bay, to the SE of Mys Kosistyy; Ostrov Brusneva is located in the interior of the bay. The shores of Bukhta Tiksi, particularly the W and S shores, are high. The N shore of the bay is indented by several fairly small and shallow lagoons. The lowest point on the shore is Peresheyek Kolycheva, which connects Poluostrov Bykovskiy to the mainland and separates Bukhta Tiksi from Zaliv Neyelova.

Zaliv Sogo and Zaliv Bulunkan are situated in the W part of the bay. Their shores are formed by the sides of spurs of the Kharaulakhskiy Khrebet, which forms the watershed between Guba Buor-Khaya and the lower course of Reka Lena. Gora Stolovaya (71°38'N., 128°45'E.) is the dominant height in the area of Bukhta Tiksi.

Pilotage.—Pilots should be ordered via the Port Dispatcher at least 2 hours prior to arrival and also prior to 1200 Moscow local time for night pilotage. Pilots will board at the outer port limits.

Regulations.—Vessels should provide their ETA 72 hours, 48 hours, and 24 hours prior to arrival.

Additional mandatory regulations for the Tiksi Commercial Seaport are published and made available from the port upon arrival.

A TSS has been established in Bukhta Tiksi; see paragraph 7.26 for more details.

Contact Information.—See the table titled **Tiksi—Contact Information**.

Tiksi—Contact Information	
Tiksi Port	
VHF	VHF channels 6, 8, 9, 12, 13, 14, and 16
Pilots	
VHF	VHF channels 14 and 16
Harbormaster	
Telephone	7-411-675-2565
Facsimile	7-411-675-2565
E-mail	tikski@vst.pma.ru

Anchorage.—Vessels may obtain anchorage within the port or in the outer roadstead. Port State Control will need to grant permission for assignment of anchorage and in the case of any change in anchorage position. Vessels at actor must maintain a constant listening watch on VHF channel 16. Vessels anchored in the outer roadstead must be ready to move at any given time.

Caution.—It is reported (2010) that a dangerous wreck, with a depth of about 2m, lies in position 71°40'N, 129°02.5'E.

The seabed in the approach to the port is strewn with various sunken objects. Floating logs and submerged timber may be encountered in port waters.

7.28 Bukhta Sytygan-Tala (70°48'N., 131°13'E.) lies in the SE part of Guba Buorkhaya and indents the coast for 17 miles. Depths of 10 to 12m lie in the entrance of this bay and decrease regularly to the shore. Vessels with drafts of up to 3m can reach close to the head of the bay. The bottom of the W part of the bay consists of gray mud, with small sections of mud and sand encountered in the S part of the bay and sand dominating the E part of the bay close to the shore, all good holding ground. Small vessels can shelter within a cove lying

on the W side of the bay. Anchorage can be taken, in a depth of 5m, gravel with good holding ground, in the central part.

Reka Omoloy (71°14'N., 132°00'E.) flows into the E side of Guba Buorkhaya, 46 miles SSE of Mys Buorkhaya. The main river channel is situated on the N side, with a width of 0.6 to 0.7 mile. Local knowledge is essential. Small vessels, with drafts of up to 2.5m, can cross the bar into the river. Tidal currents can reach a speed of 2 knots during the flood. The buildings of a former radio station are reported to be situated on the N side of the river mouth. Temporary anchorage can be taken, in a depth of 11m, outside the bar, but the holding ground is poor.

Caution.—It is reported (2003) a dangerous wreck, with a depth less than 20m, lies in position 71°45'N, 135°24'E.

Mys Buorkhaya to Mys Svyatoy Nos

7.29 Yanskiy Zaliv, the largest bay in this coastal section, is entered between **Mys Buorkhaya** (71°57'N., 132°46'E.) and the W edge of the flats, which extend N from Poluostrov Manyko, 100 miles E. The extensive delta of Reka Yana forms the greater part of the S side of this bay. The shores of the bay are fringed by shallow banks and it affords no sheltered anchorage.

The W part of Yanskiy Zaliv consists of an extensive sandy spit, which dries in places and extends for about 8 miles E and 14 miles SE from Mys Buorkhaya. This spit is divided into two parts by a channel, which leads N and has a depth of 2.1m.

The SE extremity of the above-water part of the spit lies 3 miles SE of Mys Buorkhaya and is known as Mys Piramidal'nyy on account of the pyramidal form of the landslips in this vicinity.

Depths in the entrance to Yanskiy Zaliv are as deep as 17m and decrease toward shore. Many shoal areas that cover and uncover are found offshore from the E part of the bay, especially N of Poluostrov Manyko.

Ice usually begins to form over the E part of the bay in late September, with onshore winds causing ice floes to pile up on the coastal shoal areas, making it very difficult to sail near or along the coast.

Anchoring in the vicinity of Mys Buorkhaya is not recommended due to poor holding ground and numerous shoals running well out from the coast. A light, with radar reflector, is shown 7 miles E of Mys Buorkhaya.

Reka Yana

7.30 Reka Yana rises in Verkhoyanskiy Khrebet and flows generally N for about 860 miles to the Laptev Sea. The delta of this river is composed of low and swampy tundra intersected by numerous arms. The only two arms in the W part of the delta that are navigable are Protoka Pravaya, which is entered 2 miles NE of the mouth of **Protoka Il'in Shar** (71°24'N., 134°45'E.), and the main arm, **Protoka Glavnoye Ruslo** (71°33'N., 136°45'E.) which is entered 30 miles further E. The whole of the delta is bordered by extensive alluvial flats, so that the bars of Protoka Pravaya and the main arm lie about 6 and 12.5 miles, respectively, offshore.

The river delta is covered by ice from October through June, with some years requiring the use of icebreaker assistance through the entire navigation season.

Protoka Il'in Shar is the westernmost arm in the river delta, with numerous curves and a width of 1.5 miles near the mouth and narrowing abruptly upstream. This branch is used only by local small craft with drafts up to 1.2m.

Protoka Pravaya also has numerous curves, with an average width of 400m; the navigable fairway is only 60 to 140m wide. Depths throughout this branch vary from 15m at the deepest to only 1m over the shoal areas close to the shore. The depth of water over the bar at LW is 0.8m.

Protoka Glavnoye Ruslo is the main exit from Reka Yana delta onto the Northern Sea Route. This branch is extremely curvy, with a width of 0.8 mile. The navigable fairway is 100 to 200m wide, with depths of up to 18m, decreasing to 3m over the shoal areas close to the shore. The bar to this branch is located N of the mouth, with a dredged channel 1,200m long and 60m wide. Channel depths are maintained at 4m.

Caution.—A wreck (bow section of a barge), depth unknown, lies N of the Reka Yana delta in position 71°45'N, 136°24'E.

7.31 **Yanskiy Light** (71°35'N., 136°46'E.) stands on a submerged barge on the W side of the dredged channel leading across the bar for entry into Protoka Glavnoye Ruslo.

A beacon stands on the NW extremity of the island which separates the entrances of Protoka Il'in Shar and Protoka Pravaya.

Temporary anchorage can be taken, in depths of 8 to 12m, mud, close outside the bar fronting the entrance to Protoka Pravaya. The recommended anchorage berth lies about 7 miles WNW of Yanskiy Light. Care is necessary when approaching this berth as the outer edge of the bar, which has a depth of only 0.9m, is steep-to. In addition, anchorage in this area can only be taken during favorable ice conditions.

Ostrov Yarok (71°30'N., 137°30'E.) lies close off the NE side of the Reka Yana delta with its W extremity located 7 miles E of the entrance to the main arm. This island is 9 miles wide and extends 23 miles E across the delta. A shoal, with a depth of 4.2m, lies about 4 miles N of the NW extremity of the island. A light is shown from an islet close to the N coast of Ostrov Yarok.

7.32 **Poluostrov Manyko** (71°25'N., 138°35'E.) lies E of Ostrov Yarok and separates the E part of Yanskiy Zaliv from Guba Selyakhskaya. This peninsula is fronted by a drying flat which extends about 20 miles N. Ostrov Makar, on which stands a lighted beacon, lies on the N part of this drying flat and Ostrova Shelonskie, formed by two small islets, lies on the S side of this flat. It is reported that a quay, used by vessels with drafts of up to 3.9m, is situated in a small bay which indents the W side of Poluostrov Manyko.

Guba Sellyakhskaya (71°35'N., 139°30'E.) is entered between the NE end of the flats, which extend N from Poluostrov Manyko, and Mys Turukhtakh, 9 miles ENE. This

bay extends for 29 miles, but its entire shore is fringed by shallow flats. It has not been thoroughly examined and should only be entered with great care. Mys Turukhtakh is the W extremity of a narrow peninsula which extends 8 miles W from the mainland. Sandy flats fringe this peninsula and extend up to 1.5 miles offshore.

Guba Van'kina indents the E shore of Yanskiy Zaliv and is entered between Mys Nerpichiy (72°10'N., 139°11'E.) to the N, and Mys Kurtakh, 11 miles N. This bay extends for 13 miles in a NE direction to the entrance of a basin which extends for 3.5 miles in a SE direction. It is used as a place of refuge by coasting vessels. Depths of 5.5m lie in the entrance and 9 to 11m within the bay. A good anchorage berth lies off the steep-to part of the NW side of the bay.

Guba Ebelakhskaya is entered between **Mys Churkin** (72°30'N., 139°40'E.) and Mys Svyatoy Nos, 29 miles NNE. This bay indents the coast for 17 miles in a SE direction. Its entire S part is shallow and obstructed by clay flats, which dry and extend up to 8 miles offshore. However, the E side of this bay, up to 5 miles S of Mys Svyatoy Nos, is steep-to with depths of 7 to 10m lying close offshore. A bank, with depths of less than 5m, extends SW from Mys Svyatoy Nos to within 10 miles N of Mys Churkin. A shoal patch, with a depth of 5.2m, lies about 11 miles SW of Mys Churkin.

Proliv Dmitriya Lapteva and Ostrova Lyakhovskiye

7.33 Mys Svyatoy Nos (72°52'N., 140°43'E.) forms the S entrance point of the W entrance to Proliv Dmitriya Lapteva. This point is the NW extremity of a peninsula which extends for 20 miles NW from the general trend of the mainland coast.

The former Arctic Expedition Base is situated on a coastal plain 2.4 miles S of Mys Svyatoy Nos. The buildings associated with this base are difficult to identify when approaching from the W because of the backdrop of the elevated coast. A light is shown from the roof of a building on the former Arctic Expedition Base

Anchorage can be taken by vessels with a maximum draft of 6m, in depths of 8 to 9m, within 0.7 mile of the coast in the vicinity of the Arctic Expedition Base.

Caution.—Ostrov Semenovskiy (74°15'N., 133°17'E.), formerly the southernmost island of Novosibirskiye Ostrova, is now completely eroded. A shoal, with a depth of 1.8m, exists in the place of the island and this area is now known as Banka Semenovskaya.

7.34 Ostrov Stolbovoy lies with its NW extremity located 38 miles E of Banka Semenovskaya. This island, 150 to 200m high, is cliffy in places and covered with tundra. The coasts of the island are very steep-to, especially on its SW side. Mys Povorotnyy (73°53'N., 136°10'E.) comprises a sheer cliff, 30m in height, on the S end of Ostrov Stolbovoy. A light is shown from a position about 800m NE of Mys Povorotnyy. Mys Skalistyy marks the N end of the island and is comprised of a sheer rocky cliff, 120m in height. A light is situated on Mys Skalistyy.

Anchorage.—Vessels seeking shelter from strong N and NW winds can find safe anchorage between 400m and 800m from shore at Mys Povorotnyy, mud, good holding ground.

Caution.—An unknown underwater obstruction is located 1.9 miles offshore, bearing 103° from Mys Skalistyy.

Semyonovskoye Melkovod'ye (74°10'N., 133°40'E.), an area of extensive shallows marked by two prominent banks, lies 13 miles E of Mys Stolbovoy. The two banks are Banka Vasil'yevskaya, with a minimum depth of 0.8m, and Banka Semyonovskaya, with a minimum depth of 1m.

Proliv Dmitriya Lapteva

7.35 Proliv Dmitriya Lapteva (73°00'N., 142°00'E.), 63 miles long and 30 miles wide, connects the Laptev Sea with the East Siberian Sea. The W part of this strait is fairly deep and the fairway channel is clear of dangers. In the E part of the strait, several detached dangers lie in the middle of the channel and an extensive shoal area lies in the approaches. Passage through the strait is therefore limited to vessels with drafts of up to 6.7m.

A light is shown from a structure standing on the S side of the strait, about 40 miles E of Mys Svyatoy Nos. A radiobeacon is reported to be situated 18 miles E of the light.

Arctic ice does not penetrate into the strait and the ice, which is found there, is only ice that has been formed during the same year. During August and September, there is usually no difficulty navigating the strait due to ice; in exceptional years, the strait has remained blocked by ice throughout the year.

7.36 Ostrov Bol'shoy Lyakhovskiye (73°30'N., 142°00'E.), the southernmost and larger island of the Ostrova Lyakhovskiye group, lies with Mys Kigilyakh, its SW extremity, located, 31 miles NNW of Mys Svyatoy Nos. This island is separated from the mainland by Proliv Dmitriya Lapteva. Poluostrov Kigil-yakh, a large and prominent peninsula, forms the SW extremity of the island and extends WSW for 16 miles from the general trend of the shore. A light is reported to be sometimes shown from a structure standing near the W end of this peninsula and a beacon is reported to be situated near the light.

Reka Van'kina, a small river, flows into Proliv Dmitriya Lapteva, 33 miles ESE of the W end of Poluostrov Kigilyakh.

Mys Shalaurova (73°14'N., 143°34'E.), a low headland composed of sand and shingle, forms the SE extremity of Ostrov Bol'shoy Lyakhovskiye. A small islet lies 0.5 mile SE of this headland. Lights are reported to be shown from structures standing 0.5 mile W and 6.5 miles WSW of this headland. A beacon is reported to be situated near the latter light.

From Mys Shalaurova, the coast trends N for 17 miles and then NW for 36.5 miles to Mys Malyy Van'kin, the N extremity of the island. The entire E and NE sides of the island are fronted by extensive shoals. The N coast of the island between Mys Malyy Van'kin and Mys Bol'shoy Van'kin, 15 miles WSW, is low, but is backed by a prominent mountain range. The W coast of the island is fronted by a shallow bank

between Mys Bol'shoy Van'kin and Mys Vagina (73°26'N., 139°50'E.). Mys Vagina marks the NW extremity Ostrov Bol'shoy Lyakhovskiye. Reka Khaastyr, a small and shallow river, flows into the sea 23 miles NE of Mys Vagina. A refuge hut stands on the N bank about 2 miles above the river mouth.

Reka Bludnaya, the largest river on the W coast of the island but still shallow, flows into the sea 18 miles NE of Mys Vagina. Depths in Reka Bludnaya can be as much as 1.5m for a distance of about 1 mile from the river mouth, but the entrance is obstructed by a bar. Two refuge huts stand 0.5 mile inland, 3 miles S of this river mouth. Another hut stands on the S bank about 2 miles above the river mouth.

Anchorage.—Vessels with drafts up to 6m can find safe anchorage, in depths up to 8m, in a position 3.4 miles NW of Mys Vagina. Smaller craft with drafts of 4 to 5m can anchor within 0.5 mile of the shore, where depths are 6 to 7m.

7.37 Ostrov Malyy Lyakhovskiy (74°05'N., 140°37'E.), the smallest island of the Ostrova Lyakhovskiy group, lies 8 miles WNW of the NW extremity of Ostrov Bol'shoy Lyakhovskiy. The SE side of this island is separated from the NW side of Ostrov Bol'shoy Lyakhovskiy by Proliv Eterikan.

Proliv Eterikan is restricted to vessels with drafts of up to 4m, since depths in the E entrance do not exceed 4.2 to 4.4m. However, there are depths of 10 to 11m in a narrow area in the central part of the strait. The N side of Proliv Eterikan forms the S side of Proliv Sannikova, a wide and navigable strait.

The S side of the island consists of an extensive mud flat bordered to seaward by a sandy and shingle spit. The W side of the island is low and has few prominent features. The N side of the island is low and fronted by sandy shoals. Trading posts are situated on the S and W sides of the island and several refuge huts stand along the shores.

Good anchorage, sheltered from all winds, is practically non-existent in the vicinity of Ostrova Lyakhovskiye. The depths are sufficient for anchoring almost anywhere in the vicinity of the islands, but little or no protection is afforded. Temporary anchorage can be taken off Poluostrov Kigilyakh. Depths of 4.6m lie up to 2 miles offshore; depths of 3.7m lie up to 1.2 miles offshore. Anchorage can also be obtained, in depths of 5 to 7m, mud, near Mys Shalaurova.

Proliv Sannikova lies between the S coast of Ostrov Kotel'nyy and the N coast of Ostrov Malyy Lyakhovskiy. This strait forms the middle of the three possible routes leading from the Laptev Sea to the East Siberian Sea and is available to icebreakers and vessels with drafts of up to 10.1m. There are no known dangers lying in the fairway channel, but the shores of the islands on either side of the strait have not been thoroughly examined and little is known of the coastal depths.

Ostrov Kotel'nyy

7.38 Ostrov Kotel'nyy (75°30'N., 139°00'E.), the largest island of the Ostrova Novosibirskiye group, lies with Mys Medvezhiy, its S extremity, located 28 miles NW of Ostrov Malyy Lyakhovskiy. Mys Medvezhiy is formed by cliffs which are 25m high and composed of dark rock. The coast in the vicinity of these cliffs is low, rendering them prominent. Within these cliffs, a plateau rises steadily toward the interior of the island. A light is shown from a structure standing on the highest part of the cliffs. A beacon is reported to be situated 3 miles NW of the light. Another beacon is situated on the high ground above Mys Medvezhiy.

Guba Nerpich'ya (75°24'N., 137°10'E.), a small bay, is entered between Mys Val'tera and Mys Severnyy, 6 miles NE. A narrow channel leads from the head of this bay to Laguna Nerpalakh, a large lagoon. Mys Severnyy is formed by a steep cliff and is marked by a beacon. The lagoon is separated from the head of the bay by two narrow spits, Kosa Zapadnaya and Kosa Severnaya, and is completely landlocked, except for the narrow channel leading into it. The lagoon entrance is 180m wide and is accessible to vessels with drafts of up to 6m. Beacons stand on each of the entrance points. Several huts and beacons are situated along the shore of the lagoon.

A bar with a least depth of 7m is located close off the entrance to the lagoon. Depths within the entrance channel will increase to 23m before decreasing upon entry into the lagoon, with depths inside Laguna Nerpalakh only as deep as 4.5m. A shoal patch, with a depth of 4.9m, lies about 0.2 mile N of the W entrance point. Strong tidal currents carry ice in and out of the lagoon. The average spring tidal range is 0.2m; the neap range is 0.1m. Vessels should enter only on slack water and have good local knowledge.

Vessels can anchor, in a depth of 20m, about 0.25 mile SW of the spit, Kosa Zapadnaya, at the W side of the entrance. The lagoon is considered to be one of the safest anchorages within Ostrova Novosibirskiye.

Laguna Durnoye, a rather large lagoon, is separated from the E side of Proliv Zarya by a conspicuous projection of land, Poluostrov Tas-Ary. Poluostrov Tas-Ary rises up to 35m in height and is joined to the main part of the island, to the SE and NW, by two narrow ridges. When viewed from the N or S, it appears as an island. A trading camp stands on the southernmost ridge. During the spring thaw, the lagoon flows out into the strait through this ridge. Laguna Durnaya is accessible to small boats through a channel on the S side, but only during the spring and early summer period. By midsummer and continuing until ice forms over the lagoon, entrance to all craft is blocked by pebbles.

A small lagoon, separated from the sea by a single spit, lies 0.5 mile N of the northern side of Laguna Durnoye. The coast between this small lagoon and a point, located 8 miles NNE of Mys Durnoye, curves slightly to the E and consists of prominent slate cliffs. A traders hut stands on one of these cliffs. A narrow, shingle beach, intersected by numerous small rivers, fronts these cliffs.

7.39 Proliv Zarya (75°30'N., 136°30'E.), with a least width of 12 miles, separates the E side of Ostrov Bel'kovskiy from the W coast of Ostrov Kotel'nyy. Depths within the strait vary from 15 to 19m. A shoal area up to 2.5 miles wide, with depths of less than 10m, lies along the E coast of Ostrov Bel'kovskiy. Vessels passing through this strait should only steer in the middle of the channel and keep at least 3 miles from Mys Lagerny and Mys Ploskiy.

7.40 Ostrov Bel'kovskiy (75°35'N., 135°50'E.) lies with Mys Yuzhny, its S extremity, located 17 miles W of Mys Val'tera. This island is 32 miles long and 9 miles wide. Its W side consists of an almost continuous cliff with depths of 10 to 22m lying up to 0.5 mile seaward of it. Its E side is lower and more shelving than the W side. Depths on approach to Ostrov Bel'kovskiy from Proliv Zarya are characterized by numerous shoal areas, while depths along the W coast are much deeper, with the coastline being steep-to in this area. Mys Skalistyy is a stony cliff, 20m high, located on the SW corner of Ostrov Bel'kovskiy and a light is shown from this point.

Ostrovok Strizheva, a conspicuous and rocky crag, 40m high, with sheer sides, lies 2 miles SSW of Mys Skalistyy

7.41 Mys Anisiy (76°12'N., 139°08'E.) forms the N extremity of Ostrov Kotel'nyy. This point is the termination of a narrow, shingle spit which extends about 1.5 miles E from the low tundra. From this point, the coast trends in a general SE direction for 44 miles until it merges with the low coast of Zemlya Bunge. Mys Galechnyy, located 22 miles SE of Mys Anisiy, consists of a pebble spit which separates a large, drying lagoon from the sea.

From Mys Galechnyy, the coast trends in a general S direction and the mouth of a large river lies 11 miles SSE of the point. The exact limits of the shoreline extending between the mouth of this large river and Zemlya Bunge depend to a great extent on the direction of the prevailing wind. During onshore winds from the N or NE, a wide strip of drying area is covered with water. During periods of offshore winds, these drying areas extend farther N and NE.

The N part of the E shore of Ostrov Kotel'nyy is separated from the NW shore of Zemlya Bunge by Guba Dragotsennaya, a large and open bay which is fully exposed to N winds. Reka Dragotsennaya, a large river, flows SE from the middle of Ostrov Kotel'nyy towards the low coast of Zemlya Bunge.

7.42 Zemlya Bunge (75°20'N., 141°30'E.), an extensive low-lying area of sand, is located between Ostrov Kotel'nyy and Ostrov Faddeyevskiy. The greater part of this area is submerged at HW. However, some places are above-water and are covered with scanty grass.

There is no distinct boundary between Zemlya Bunge and Ostrov Kotel'nyy and they merge into one another. However, the E side of the low and sandy area is separated from the main part of Ostrov Faddeyevskiy by a narrow, shallow inlet. This inlet, which is 2 to 6 miles wide, is known as Zaliv Gedenshtroma. A fishing settlement is reported to be situated on the SE side of Zemlya Bunge.

The S coast of Zemlya Bunge, which forms the N side of the E part of Proliv Sannikova, trends in a general ENE direction for 58 miles to the mouth of Zaliv Gedenshtroma. During offshore and onshore winds and even during small tides, the shore changes gradually to a coastal shoal and, depending on the variation of the water level, rises out of the water or submerges for a considerable distance. A light is shown from a structure standing on the SW side of Zemlya Bunge; a beacon is situated 7 miles SE of it.

Ostrov Nanosnyy (76°20'N., 140°20'E.) was reported (1938), by an aircraft, to lie about 20 miles ENE of Mys Anisiy. It is very low, sandy, barren, and subject to inundation. This island is surrounded by extensive shoals and should not be approached within depths of less than 20m.

Ostrov Figurine (76°17'N., 141°22'E.), reported to lie about 12 miles E of Ostrov Nanosnyy, is low except in its NE part, where there are cliffs, 18m high. An isolated depth of 11m is reported to lie about 7 miles N of this island.

Ostrov Zheleznikova lies about 15 miles SSW of Ostrov Figurine and off the NW side of Zemlya Bunge, from which it is separated by a channel, 2 miles wide. This channel is reported to dry at times.

7.43 Ostrov Faddeyevskiy (75°30'N., 144°00'E.), lying 30 miles E of Ostrov Kotel'nyy, is composed of sandy clay and fossil ice with a thin alluvial covering. Strelka Anzhu, a narrow and above-water spit, extends about 32 miles NNW from the NW side this island and terminates in Mys Berezhnykh. The SW side of this spit apparently merges into the NE side of Zemlya Bunge.

Mys Blagoveshchenskiy, the NE extremity of the island, is formed by steep cliffs, as is most of the NE side. The S coast of the island, which forms a part of the N side of the E approach to Proliv Sannikova, consists of a rather short stretch of coast. Several huts, used by visiting fishermen, stand along this stretch and in the vicinity of Mys Kozhevina, the SE extremity of the island.

The SE and E sides of the island form the W shore of Proliv Blagoveshchenskiy. The coast between Mys Kozhevina and Mys Pestsovyy, 15 miles NE, is composed of cliffs of fossilized ice, up to 15m high. A shallow bank, composed of mud, fronts this stretch of coast and often has ice buried beneath it.

7.44 Proliv Blagoveshchenskiy (75°20'N., 145°50'E.), which separates the E side of Ostrov Faddeyevskiy from the W side of Ostrov Novaya Sibir', connects the waters of the E approach to Proliv Sannikova with the waters to the N. Irregular depths are reported to exist throughout this strait and shoals extend from both the shores. Depths of 5 to 7m lie in the middle of the strait and strong currents, which attain rates of up to 3.5 knots, have been observed in this passage.

Ostrov Novaya Sibir', a large island, lies with Mys Vysokiy, its NW extremity, located 22 miles E of the NE extremity of Ostrov Faddeyevskiy. It was reported (1958) that this island is in the process of disintegration and will one day disappear as other islands within Ostrova Novosibirskiye have already done. The island is comparatively low and does not exceed 90m in height. Mys Vysokiy, 40m high, is the extremity of a peninsula, 4 miles wide, which extends for 15 miles in a NNW direction from the main part of the island. This point is steep-to and can be approached to within 0.5 mile by vessels with drafts of up to 6m.

The S side of the island is bordered by an extensive bank, with depths of less than 9m, which extends about 20 miles offshore. Numerous detached shoals, with depths of 8 to 10m, lie up to 40 miles offshore. A shoal, with a depth of 5.2m, lies about 18 miles SE of Mys Nadyezhnyy.

Ostrov Bennett (76°40'N., 149°00'E.) lies with its SW extremity located 70 miles NNE of the NW extremity of Ostrov Novaya Sibir'. This entire island is formed by a tableland which is 300 to 400m high and has a few isolated summits. The central part of the island is covered, to a considerable extent, with snow and ice from which glaciers descend to the valleys and ravines. However, few of these glaciers reach the sea.

Gora De Longa, the summit of the island, rises to a height of 448m near the SW extremity. The S side of the island consists of mountains and ravines. A glacier descends towards the sea from the middle of the island along one of these ravines. Poluostrov Emmeliny, a peninsula, forms the NE extremity of the island and consists of a massive cliff which projects abruptly into the sea. A large wooden cross is reported to stand near the summit of this peninsula.

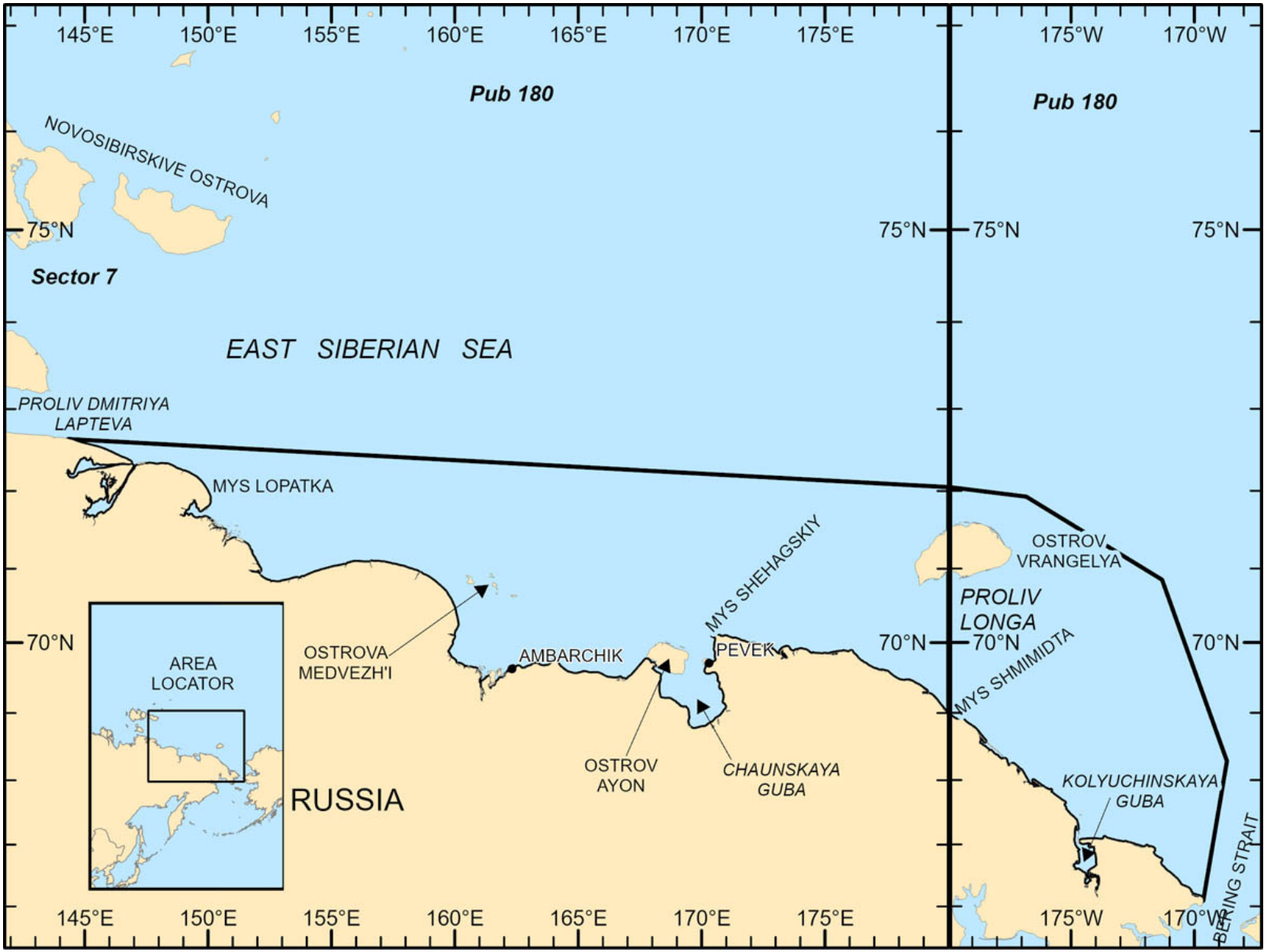
7.45 Ostrov Vil'kitskogo (75°43'N., 152°30'E.), the southernmost island of the Ostrova De Longa group, lies 40 miles NE of the NE extremity of Ostrov Novaya Sibir'. This island, 70m high, is narrow and not more than 1.5 miles long. It rises from the sea in steep cliffs which are composed of dark gray, brown, or dark red rock.

Ostrov Zhokhova, the central island of the group, lies 25 miles N of Ostrov Vil'kitskogo and 58 miles SE of Ostrov Bennett. The surface of this island is covered with smooth tundra vegetation. Gently sloping hills, 80 to 120m high, rise at the center of the island and its appearance, from seaward, differs sharply from that of the others in the group. Two small lagoons, separated from each other by a low spit covered with pebbles, are located near the S extremity of the island.

7.46 Ostrov Genriyetty (Henrietta) (77°05'N., 156°30'E.) lies 71 miles NE of Ostrov Zhokhova. This island, which is 2.3 miles in extent, is composed of a mass of hard rock. Its shores consist of steep, cliffy slopes.

A large dome-shaped ice cap covers the greater part of the entire surface of the island and rises to a height of 340m. The NW extremity of the island is formed by vertical cliffs that are very prominent. A polar station was reported (1937) to be situated near these cliffs.

Ostrov Zhannetty (Jeannette) (76°50'N., 158°05'E.), the easternmost island of the group, lies 24 miles SE of Ostrov Genriyetty. This island, which is 1.5 miles long, is composed of rocky and steep cliffs, 150 to 180m high. A wide and deep valley, which terminates at the shores in high and steep cliffs, traverses the island in a N/S direction. A dome shaped ice cap, 250m high, covers the middle of the island. The coasts are generally steep-to, but a narrow shingle spit, strewn with fragments of volcanic rock, forms the SW extremity of the island.



Additional chart coverage may be found in NGA/DLIS Catalog of Maps, Charts, and Related Products (Unlimited Distribution).

Sector 8 — CHART INFORMATION

Sector 8
The East Siberian Sea—South Shore

Plan.—This sector describes the Siberian coast of Russia, which borders the East Siberian Sea, from Proliv Dmitriya Lapteva to Ostrov Vrangelya. The descriptive sequence is ESE from Reka Kondrat'eva.

General Remarks

8.1 The coast between Reka Kondrat'eva and Mys Shmidta, 760 miles ESE, is somewhat irregular and consists, to a large extent, of low tundra interrupted in places by high ground and cliffs. Low hills rise inland and numerous rivers, only a few of which are navigable, empty into the sea.

The depths lying along this coast and in the East Siberian Sea vary considerably. The W part of the sea, to the S of Ostrova Novosibirskiye, and the waters fronting its S shore, as far E as the approaches to Reka Kolyma, are shallow with numerous shoals. The central and E parts of the sea and the waters adjacent to the coast are deeper and clear of known dangers.

Several unexamined areas lie within the East Siberian Sea and the low aspect of the coast renders recognition of many parts of it difficult from a safe distance offshore. A number of lights and beacons are maintained during the navigation season, particularly along the E half of the coast. Ambarchik and Pevek are the two most important ports along this stretch of coast.

Winds—Weather.—The winds in the W part of the coast are monsoonal in character, blowing toward the land from May through August and blowing in the opposite direction during the winter. Toward the E part of the coast and at Ostrov Vrangelya, the winds tend to blow from the S in July and August and from the N for the remainder of the year. Calms are comparatively few in summer, but they occur more frequently in winter.

Along the coast, fog occurs 90 to 100 days per year and about 75 per cent of the time during the summer. In July, fogs are usually brought in by the N winds, but they occur mostly with SW winds or calms during the other months. Fogs appear to last longer during the winter months.

Strong breezes or winds of greater strength occur only about 2 to 4 days per month during the summer. The summer storms are weak and only last for 1 to 2 days. Storms are most frequent during the winter when anticyclonic conditions occur. The severe winter storms may last for 3 to 5 days.

Ice.—In regards to ice conditions, the East Siberian Sea can be divided into two distinct parts. The W part lies between Ostrova Novosibirskiye and Reka Kolyma. The E part lies between the latter river and the Chukchi Sea. During the winter, the sea is almost completely frozen over. In the summer, most of the ice along the coast melts and breaks up so that a belt of water lies between the shore and the S edge of the ice pack. During the navigation season, the W part of the sea along the coast is usually clear of ice. However, varying amounts of ice, often practically impenetrable, may be encountered in the E part.

The ice begins to thaw in May. It breaks up first in the vicinity of the mouth of Reka Kolyma, usually about the latter part of June. Soon afterwards, the shallow coastal waters to the W open up rapidly. Along the coast in the E part of the sea, the breakup occurs after that at Reka Kolyma. The navigation season lasts for about 8 to 10 weeks in the W part of the sea, but is limited to about 6 weeks in the E part.

During the navigation season, the ice conditions in the E part are frequently severe. The coast is unprotected by islands and shoals so that the polar ice is able to move S without hindrance. Navigation along this part of the coast is facilitated by a narrow, open lane of water which lies close to the shore between Mys Bol'shoy Baranov and Mys Shmidta. Offshore winds tend to widen this open lane, but onshore winds may encumber it with ice.

Vessels, with light drafts, can usually proceed through this narrow and open lane without assistance, but they may be blocked by ice near some of the capes. Deep-draft vessels, which must keep farther offshore and closer to the ice pack, as a rule, require icebreaker assistance. At times, vessels have had to wait for S winds to widen the lane in order to proceed safely. Very difficult conditions have been encountered off Mys Shmidta where ice is usually present all summer and the sea freezes rather early.

In the W part of the sea, the ice drifts mostly to the N. During the summer, when the winds are somewhat unstable, the drift of the ice with the wind is not always constant. The flow of water from the river mouths tends to facilitate the N drift of the ice. During the winter, the S part of the sea is covered by fast ice that is not affected by wind. However, the drift of the ice in the N part of the sea is predominantly to the N, shifting to NW beyond Ostrova Novosibirskiye.

In the E part of the sea, the current and the drift of the ice are not clearly defined and are frequently with the prevailing winds. Towards the E part of the coast, in the vicinity of Mys Shmidta, the ice drifts in a SE direction under the influence of a current which sets SE along the shore. In the N part of the sea, the ice usually drifts W and WNW.

The freezing of the coastal waters usually starts in the W part of the sea and progresses to the E. The W part of the sea, which is shallow, is influenced by the fresh water from the large rivers and covers with solid, immovable ice. At the same time, the ice is still forming and moving about in the E part.

The freeze occurs during the early part of October in the W part and progressively later to the E. Navigation in the vicinity of Mys Shmidta may be terminated earlier because of drifting ice that appears long before the sea freezes over completely.

Fast ice forms an unbroken surface between the end of October and the latter part of November. It extends up to

several miles offshore at Mys Shmidta, up to 10 to 50 miles offshore at Mys Billingsa, up to 250 to 270 miles offshore in the W part of the sea, and up to 7 to 20 miles offshore to the N of Ostrova Novosibirskiye. The ice attains a thickness of 2.1m in Proliv Dmitriya Lapteva and 1.8m in the sea. Beyond the limits of the fast ice, close pack ice exists, but no icebergs are encountered in the East Siberian Sea.

Regulations.—For information on the Northern Sea Route, see paragraph 1.2.

Caution.—Russian regulations for the protection and hunting of marine mammals must be observed by vessels navigating in these waters.

Reka Kondrat'eva to Reka Indigirka

8.2 Reka Kondrat'eva (72°32'N., 143°37'E.), a small river, empties into the sea on the S side of the E end of Proliv Dmitriya Lapteva, 54 miles ESE of Mys Svyatoy Nos. The river mouth is encumbered with shoals, most of which dry, and the entrance channel has a depth of 1.8m.

Guba Omulyakhskaya and Guba Khromskaya have a common entrance, 5 miles wide, which lies at the E end of Merkushina Strelka, 62 miles ESE of the mouth of Reka Kondrat'eva. Both of these bays are shallow and of no navigational interest. A high, sandy cliff stands on the E side of the entrance and is prominent from seaward.

8.3 Reka Bogdashkina (72°15'N., 149°00'E.) empties into the sea 38 miles E of the entrance to the two bays. The mouth of this river, which 0.5 mile wide, is too shallow to be entered even by boats. Three isolated hills rise on the E side of the river entrance and are conspicuous from seaward.

Reka Myelkaya (Reka Melkaya) empties into the sea 13 miles ESE of the mouth of Reka Bogdashkina. Ozero Mogotoyevo, a large lake, drains into the head of this river, 7 miles inland. Shoals, with a depth of 7m, lie about 23 miles N and 24 miles ENE of this river mouth.

Mys Lopatka (71°44'N., 149°48'E.), located 30 miles SSE of Reka Myelkaya, is the low, S end of Poluostrov Lopatka. This peninsula is composed of marshy tundra with numerous streams.

Guba Gusinaya (71°45'N., 149°30'E.), an extensive shallow bay, is entered close SW of Mys Lopatka. Low islets lie 1 mile S and 4 miles NW of this latter point. A bank lies between Reka Kondrat'eva and this bay. It has depths of less than 5m and extends 10 to 25 miles offshore.

Reka Indigirka

8.4 Reka Indigirka (70°00'N. 147°30'E.) is the largest river lying between Reka Lena and Reka Kolyma. It has an extensive delta which extends between the entrance to Golyshenskaya Protoka and the entrance to Kolymskaya Protoka. This river is navigable as far as the village of Krest-Mayor, 462 miles upstream. During the navigation season, the approach channel and river fairway are marked by buoys and beacons. Vessels load and discharge cargo from river craft, close off the bar.

The central branch, known as Srednyaya Protoka, is the most easily navigated and has depths of not less than 4m. However, this branch is obstructed by a bar which has a depth of only 1.2m and extends up to 10 miles offshore.

A lighted beacon, which marks the fairway channel leading across the bar, is reported to be situated on a drying flat near the entrance.

The coast in the vicinity of the river delta is fronted by a bank with depths of less than 5.5m. This bank extends up to 20 miles offshore and should be approached with great care.

A transshipment station, with a landing stage, is situated 16 miles above the entrance of the Srednyaya Protoka. Vessels, with drafts of up to 2m, can reach it, but local knowledge is required.

Reka Indigirka to Reka Kolyma

8.5 Kolymskaya Protoka (70°57'N., 152°20'E.) has a depth of 1m over the bar and is navigable only by small craft. A house, which stands 22 miles within the entrance of the river, is reported to be prominent from seaward.

The coast between the entrance to Kolymskaya Protoka and Mys Sergeyeva, 130 miles ENE, is low and intersected by a number of shallow rivers and streams. A muddy shorebank, with depths of less than 1.8m, fringes this entire section of coast and extends up to about 15 miles offshore.

Caution.—The coastal delineation in this area is only approximate. Vessels should exercise care as this section of the shore has not been sufficiently surveyed.

8.6 Reka Alazeya (70°52'N., 153°45'E.) empties into the sea through a small and shallow inlet. A beacon stands on the E side of this river entrance and a rock, with a depth of less than 1.8m, lies about 10 miles NNE of it. In the vicinity of the river mouth, the high ground recedes inland for a considerable distance so that the area appears as a gulf from seaward.

Reka Malaya Kuropatoch'ya lies 46 miles ENE of the mouth of Reka Alazeya and the coast between is backed by hills. For the first 20 miles, hills, 9 to 15m high, rise 5 to 8 miles inland. For the remainder of this stretch of coast, the hills approach the shore and are faced with a line of cliffs. The valley of the river forms a prominent break, 4 miles wide, in this line of cliffs.

Reka Bol'shaya Kuropatoch'ya lies 22 miles E of the mouth of Reka Malaya Kuropatoch'ya. The intervening coast, which is composed of clay and fossilized ice, is higher and steeper than near the river mouths.

Mys Sergeyeva (70°55'N., 158°58'E.) is located 45 miles ESE of the mouth of Reka Bol'shaya Kuropatoch'ya and Reka Kurodagina empties into the sea close SE of it. Between this point and Mys Krestovyy, 20 miles SE, several shallow rivers empty into the sea from a sandy tundra plain.

Mys Krestovskiy (70°18'N., 160°08'E.), located 25 miles SSE of Mys Sergeyeva, rises to a tableland, 25m high. A submerged sand bar extends about 6 miles S from this conspicuous headland.

Mys Chukochiy, formed by two terraces of clay and ice, is located 12 miles S of Mys Krestovskiy. Bol'shaya

Chukoch'ya Protoka empties into the sea on the N side of this point. The river is fronted by a bar, with a depth of 0.9m, and is reported to be navigable up to 22 miles upstream by small craft.

Caution.—Medvezh'l Ostrova, a group consisting of six rocky islands, extends ESE for 45 miles from a point located 20 miles NE of Mys Krestovyy.

8.7 Ostrov Krestovskiy (70°50'N., 160°35'E.), which is 9 miles long and 4 miles wide, lies with its NW end located 20 miles NE of Mys Krestovyy. This island is the westernmost, highest, and largest of the group. Its center consists of a dome-shaped summit, 270m high. A light is shown from a tower, 12m high, standing on the NW extremity of the island, but it is obscured from the SE by a hill. A small bay lies on the W side of the island and affords shelter from all except W winds. It is reported that a beacon stands on the S side of this bay and a hut is situated on the shore.

Ostrov Pushkareva lies 14 miles ENE of the SE end of Ostrov Krestovskiy. This island is 4 miles long and the northeasternmost of the group. Its SE extremity, from which a light is shown, is connected to the rest of the island by a low isthmus.

Ostrov Andreyeva, 9m high, is the smallest island of the group and lies 1 mile W of the SW extremity of Ostrov Pushkareva.

8.8 Ostrov Leont'yeva (70°47'N., 161°35'E.) is 7 miles long and lies 4 miles S of Ostrov Pushkareva. Three hills rise on this island which is steep and cliffy on its E side. The northernmost and tallest of these hills is 79m high.

Ostrov Lysova, 37m high, lies 2 miles S of Ostrov Leont'yeva.

Ostrov Chetyrekhstolbovoy, the easternmost island of the group, lies with its W extremity located 11 miles ESE of the S end of Ostrov Leont'yeva. This island is 6 miles long and 2 miles wide. The W part of the island consists of a hill, which rises from the sea in sheer cliffs, and is connected to the rest of the island by a low isthmus. Four conspicuous pillar-shaped rocks stand on the E part the island. A light, reported (2007) extinguished, is shown from a structure standing on the E extremity of the island. A polar meteorological station and a radio station are situated on the shore of a small bay which indents the S side of the island. Anchorage can be taken, in a depth of 10m, about 2.5 miles offshore, abreast the radio station.

A shoal patch, with a least depth of 8m, is reported to lie about 26 miles E of Ostrov Chetyrekhstolbovoy.

Reka Kolyma

8.9 Reka Kolym (68°49'N., 161°18'E.) is one of the largest and most important rivers along this part of the coast. This river, which rises in the mountains about 970 miles from the sea, empties through an extensive delta which lies between the mouth of Bol'shaya Chukoch'ya Protoka and Mys Medvezhiy, 41 miles E. The two most important passages leading through the delta into the river are Pokhodskaya Protoka and Protoka Kamennaya Kolyma.

Pokhodskaya Protoka enters into the sea 23 miles W of Mys Medvezhiy. It is reported to be the more easily navigated of the two passages and has a depth of 3.7m on the bar.

Protoka Kamennaya Kolyma enters the sea close W of Mys Medvezhiy and is the best known passage of the two. The entrance of this passage is obstructed by a bar, with a least depth of 3.9m, but the water level is greatly affected by the wind, and access to the fairway is subject to periodic changes from alluviation. Within the bar, the depths increase up to 8m. During the navigation season, the entrance is reported to be marked by buoys.

Mys Medvezhiy to Chaunskaya Guba

8.10 Mys Medvezhiy (69°40'N., 162°23'E.), a low and inconspicuous point, extends NNW for 1.5 miles from the general line of the coast. A lighted range indicates the channel which leads across a bar to the roadstead anchorage lying close N of this point.

Ambarchik (69°38'N., 162°19'E.) lies within Bukhta Ambarchik, an inlet, on the E side of the entrance to Protoka Kamennaya Kolyma. There are depths of only 1 to 2.1m in the inlet and large vessels must trans-ship cargo at the open roadstead which lies N of Mys Medvezhiy. Vessels can anchor, in a depth of 9m, mud and stones, not less than 3 miles N of the above point. Although the holding ground is good, the roadstead is completely exposed and, at times, it is not possible to work cargo due to strong winds. Local pilots are available. A settlement is situated on the E bank of Protoka Kamennaya Kolyma, 16 miles SW of Mys Medvezhiy.

Mys Letyatkina (69°42'N., 163°13'E.) is located 18 miles E of Mys Medvezhiy. This headland is the N extremity of a line of cliffs which are strewn with pillar-shaped rocks. A light is shown from a structure standing 1.5 miles W of the headland. An above-water rock lies close offshore, 3 miles ESE of the headland.

Mys Bol'shoy Baranov, located 18 miles E of Mys Letyatkina, rises abruptly from the sea to a group of hills, 340m high, and is very conspicuous. A light is shown from a structure, 12m high, standing at the foot of the cliff at the N extremity of this point.

Mys Baranikha, located 23 miles ESE of Mys Bol'shoy Baranovis, lies on the W side of the entrance to a river. A light is shown from a structure, 12m high, standing near this point.

Reka Mil'kera empties into the sea 12 miles E of Mys Baranikha. A light is shown from a structure, 13m high, standing on the high, E bank of this river. A beacon is reported to be situated 3 miles E of the river mouth.

8.11 Reka Rauchua (69°30'N., 166°38'E.) empties into the sea 32 miles ESE of Mys Baranikha. A light is shown from a structure, 14m high, standing on the E end of a spit which extends from the W side of the river mouth. A beacon is reported to be situated 4.5 miles W of the light. A ruined chapel stands on the E side of the spit and a village is situated 2.5 miles W of it. A bank, with depths of less than 1.8m,

extends up to about 2.5 miles NW from the E extremity of the spit. A low island lies close inshore, within the entrance of this river. The river empties into the sea through a low delta and its mouth is encumbered by a bar with a depth of less than 0.9m. Vessels may anchor, in depths of 10 to 12m, about 2.5 miles offshore, to the N of the village. Local knowledge is required.

Malyy Chaunskiy Proliv (69°44'N., 168°00'E.), which is 2 miles wide at its W entrance, is a partly drying strait separating Ostrov Ayon from the mainland. It trends SE for 12 miles into Chaunskaya Guba and is encumbered with shoals. During the summer, the channel in the strait is less than 22m wide and dries completely at LW. A beacon is reported to be situated on the coast, 2 miles SW of the W entrance point.

Ostrov Ayon lies on the W side of the entrance to Chaunskaya Guba and is separated from the mainland by Malyy Chaunskiy Proliv. The coast of this island is low, but, in places, cliffs of earth and sand rise up from the sea. Depths of less than 11m lie within 12 miles of the N extremity of the island. A light is shown from a structure, 15m high, standing near the W extremity. Another light, with a racon, is shown from a structure, 17m high, standing on the N extremity.

Ostrov Chenkul' (69°53'N., 169°40'E.) lies 1.8 miles off the NE side of Ostrov Ayon and the channel leading between them dries. This island consists of two parts joined by a low isthmus. A light is shown from a structure, 11m high, standing on the high ground in the center of the island.

8.12 Chaunskaya Guba, an extensive inlet, is entered between the NE end of Ostrov Ayon and Mys Shelagskiy. It is deep and extends S for about 80 miles. Several small islands lie on the E side of the entrance to this inlet, off the town of Pevek. A number of villages stand in the vicinity of the mouths of numerous rivers which empty into the S part of the inlet.

Mys Shelagskiy (70°06'N., 170°25'E.) is the W extremity of a peninsula which extends 5 miles WNW from the general line of the coast. This peninsula is joined to the mainland by a low isthmus within which high land rises toward the interior. The peninsula rises to two rounded summits and appears as two islands from a distance to the E. The westernmost and tallest of these summits is 457m high. A light is shown from a structure, 8m high, standing on the N slope of Mys Shelagskiy and another light is shown from a structure, 5m high, standing on the W extremity of the point.

Poluostrov Pevek (69°39'N., 170°23'E.), mountainous and conspicuous from seaward, extends 9 miles W from the E side of Chaunskaya Guba. Mys Peveka, steep and craggy, is located on the N side of this peninsula, 23 miles S of Mys Shelagskiy. Mys Matyushkina, the SW extremity of the peninsula, is located 9 miles SSW of this point.

Caution.—Numerous lighted beacons and range lights in the inlet have been reported (2019) extinguished.

8.13 Pevek (69°43'N., 170°18'E.) (World Port Index No. 62680), an industrial settlement, stands on the NW side of Poluostrov Pevek. Pevek is both a lighterage port as well as having four alongside berths that handle mostly mining products and construction materials, as well as containers, coal, foodstuffs, consumer goods, and machinery.

Pevek, situated on the E shore of the harbor, is the center of the Chaunskiy Rayon Oblast' of the Chukotskiy Avtonomnyy Okrug and the center of the mining industry. The port is open during the summer (June through September). The Akademik Lomonosov. a floating nuclear power plant, is in permanently moored in the port.

The settlements of Ayon (69°56'N., 167°59'E.), Rytkuchi (68°53'N., 170°44'E.), Apapel'gino (69°48'N., 170°36'E.), Yanrangay (69°55'N., 170°33'E.), and Billings (69°53'N., 175°45'E.) are also located on the coast. There are polar stations at Ayon and Billings, as well as several independent polar stations.

The port does not accept oil-containing bilge and sewage.

Ice.—The N entrance is the main entrance to Proliv Pevek, but when drift ice is forced towards the shore to the S of Mys Shelagskiy, the strait can be entered from the SW. The navigation season which is expected to extend, starts in July and currently lasts up to 100 days.

Ice conditions in the approaches to Port Pevek and Chaunskaya Guba depend mainly on the position and development of the Ayonskiy Ice Sheet. The area of the approaches to Chaunskaya Guba is situated within its boundaries, whatever the position of the sheet (eastern, central or western). In the navigational period, the position of the S edge of the ice varies depending on wind direction. Even when the S edge of the sheet is at a distance of 50 to 100 miles from Ostrov Ayon, during N winds ice approaches the shore, forming ice isthmuses which are almost impassable. In this case it is particularly difficult to proceed along the N coast of Ostrov Ayon, where the ice comes right up to small depths and vessels are forced to hold close to the shore, having minimal water under the keel. In years which are favorable in respect of the ice conditions, the period of navigation without an icebreaker lasts for about 2 months (August-September) at Ostrov Ayon, and up to 3 months at Port Pevek. In unfavorable years, the ice is retained during the entire navigation period and the possibility of sailing without icebreakers is greatly diminished. In such years, ice is encountered for the entire navigation period, even in Proliv Pevek and in Port Pevek waters. The fast ice in Proliv Pevek usually breaks up around June 12 and it is completely clear of ice in mid-July. Ice formation commences roughly on October 8. The waters of the strait freeze completely 10–15 days after the appearance of young ice.

Aspect.—Pevek Front Range Light, 16m in height, is located in position 69º43.4'N, 170º27.3'E. The rear range light, 16m in height, is located in position 69º43.1'N, 170º27.4'E. The lights, in line bearing 176.25º, are exhibited from the N coast of Poluostrov Pevek and lead S, through Proliv Pevek, which separates Ostrov Bol'shoy Routan and Ostrov Malyy Routan from Poluostrov Pevek.

Routan Range Lighted Beacons are located in position 69º42.34'N, 170º07.8'E (front light) and position 69º42.3'N, 170º07.2'E (rear light) and are in line bearing 252.5º. Mariners proceeding to Bukhta Pevek, the inner harbor, or the oil depot berth follow Routan Range to a position WNW of

Kosa Nablyudeny Lighted Buoy (69º42.4'N., 170º12.8'E.), marking the NW extremity of Kosa Nablyudeniy.

Lighthouses, lighted beacons, and unlighted beacons, are located on the shores of Chaunskaya Guba and on the islands in it. Radiobeacons are located at the lighthouses and at some polar stations. A racon is located on Ostrov Ryyanranot. Entrance into Port Pevek and the approach to the Kremyanka transshipment station are assisted by range lines of lighted beacons. A lighted buoy is exhibited in the central part of Proliv Pevek.

Winds—Weather.—Masters should obtain advice about the possibility of the local "yuzhak" wind rising unexpectedly during mooring operations. The "yuzhak" wind, which is a föhn wind, is observed in the area of Port Pevek; its speed reaches 87.5 knots (45 m/s). This wind arises suddenly, most often in the morning, and may continue for up to 2 days; it rarely blows for longer durations.

Winds from the N prevail in the navigational period (July-September). For example, the prevailing wind at Ostrov Ayon is NE, while at Port Pevek it is N, NE, and, not infrequently, NW. These winds delay clearance of ice from the coastal area of the sea at the start of navigation, driving drifting ice towards the shores. Fogs often form at the ice edge.

The duty port control officer notifies all vessels situated int he port of wind speeds greater than 21 knots (11 m/s).

Depths—Limitations.—Vessels of any size may moor at any of the five roadstead anchorage berths for loading and unloading as best seen on the chart. Depths are up to 18m in the N entrance to Proliv Pevek and more than 20m in the S entrance.

The port consists of four alongside berths. Berth No. 1 is the westernmost berth and used for the discharge of coal. Berth No. 2, Berth No. 3, and Berth No. 4 are E of Berth No. 1 and will handle all the other types of cargo worked at this port.

There is also an offshore berth, formed by several mooring buoys, for the use of ocean-going tankers. A submarine pipeline connects this berth to the shore. For berthing information see the table titled **Pevek—Berth Information**.

Pevek—Berth Information			
Berth	**Length**	**Depth**	**Remarks**
Pevek Sea Port Terminal			
No. 1	186m	9.0m	Coal products.
No. 2	180m	9.4m	General cargo.
No. 3	134m	7.9m	General cargo.
Pevek Oil Terminal			
No. 4	104m	6.4m	Oil products.

Pilotage.—Pilotage is compulsory and is available 24 hours. Pilots should be requested by facsimile or e-mail to the Port Captain 72 hours to 48 hours prior to arrival at the pilot boarding position. Confirmation of the request should be sent on VHF channel 16 to the Port Captain and to the Sea Trade Port of Pevek 4 hours prior to arrival. When leaving the port, pilots should be requested no later than 2 hours prior to departure via VHF channel 16.

Pilots will board in the following positions:

a. 69°44'28.8"N, 170°26'31.2"E.
b. 69°39'01.2"N, 170°09'49.2"E.

Regulations.—The Mandatory Regulations for Pevek Maritime Commercial Port (1987 edition) can be obtained on arrival at the port. The maximum speed of sailing in port waters must not exceed 6 knots, and in tight conditions or restricted visibility and when approaching a berth, speed must be the minimum ensuring steerage way. Vessels entering the port must give way to vessels departing from the port. Vessels may moor to berths in a wind speed of up to 29 knots (15 m/s), but only with the permission of the harbormaster when the wind speed is greater.

The port is accessible to vessels up to 200m in length, 30m in breadth, and with a maximum draft of up to 13m for entering port.

Before approaching a berth, the master of a vessel having maximum permissible draft must obtain information on the actual depth at the berth from the port control inspectorate.

Contact Information.—See the table titled **Pevek—Contact Information**.

Pevek—Contact Information	
Pevek Sea Trade Port	
Call sign	Pevek Radio 2
VHF	VHF channels 14 and 16
Port Captain	
Call sign	Pevek Radio 5
VHF	VHF channels 11 and 16
Telephone	7-427-374-2525
Facsimile	7-427-374-2551
	7-427-374-2525
E-mail	wolna@chukotnet.ru
Pilots	
VHF	VHF channels 6 and 16

Anchorage.—Anchorage may be obtained, except in W and SW winds, by tankers with drafts up to 9.8m, facing an oil depot situated on the N part of Kosa Neftyanaay (69º40'N., 170º12'E.), a narrow and low spit extending along the E shore of Proliv Pevek. Vessels may moor to the berth only after receiving permission from the oil depot authorities and the port control.

Anchorage may be obtained by seagoing vessels off the mouth of Reka Apapel'gin (69º46'N., 170º36'E.), at distances from 1 to 1.25 miles from the shore, in depths from 8 to 9m, sandy mud. The anchorage is marked by a barrel buoy. It is used by tankers to transfer aviation fuel to the airport, close by.

Mariners should note that in the absence of any specific berthing instructions, when abeam of the conspicuous power station building, the recommended track leads NW to Anchorage No.2.

Anchorage No. 1 is situated S of the Routan Range Lights, while Anchorages No. 2 to 5 are situated to the N of it.

The anchorage location is indicated by the port control duty officer. Vessels must anchor so that however they may swing, they do not go beyond the boundary line of the allocated anchorage and do not come closer than 0.2 mile from the Routan Range Line.

Pevek—Anchorage Areas		
Berth	**Depth**	**Remarks**
No. 1	15.0-25.0m	For dry cargo vessels.
No. 2	15.0-18.0m	For dry cargo and icebreaker vessels.
No. 3	17.0-26.0m	For vessels with a cargo of explosive and spontaneously inflammable substances.
No. 4	13.0-20.0m	For tankers.
No. 5	12.0-14.0m	For vessels in quarantine.

Directions.—When proceeding towards Port Pevek from the W, head in the direction of Mys Yanrangay until the Pevek Range Line (in line bearing 356.3°–176.3°) is reached, and then lay onto this range line. When proceeding along the Pevek Range Line, avoid to starboard the shoal which extends from Kosa Routan. When the Routan-Kosa Lighted Beacon comes onto the starboard beam, proceed further along the range line for not less than 1.5 miles, after which turn to starboard and head along the Routan Range Line (in line bearing 072.6°–252.6°) to the anchorages or to the berths of the port as directed by the port control duty officer. In the absence of other instructions, when the conspicuous power station building comes onto the port beam, turn to starboard and anchor in Anchorage No. 2.

When proceeding to the oil depot berth, taking care to avoid the shoal which extends WNW from Kosa Nablyudeniy, head along the Routan Range Line and, 0.2 mile short of the line of the Prolivnyy Range Line, turn to port onto this range line (in line bearing 188.3°–008.3°). When Mys Peschanyy comes onto the starboard beam, turn to port and head to the berth, keeping the N storage tanks of the oil depot dead ahead and using the beacons of the Bukhtovyy Range Line for orientation.

When approaching Chaunskaya Guba from the E, having rounded Mys Shelagskiy at 1 to 2 miles, head S so as to come out onto the Pevek Range Line, and then proceed as indicated above.

If ice has been driven towards the shore to the S of Mys Shelagskiy, head S in the middle of Proliv Sredniy, avoiding to starboard underwater obstacles, with depths of about 10 and 13m, situated, respectively, 9 miles NE and 9.4 miles SE of Mys Achikkuul', and to port a shoal with depths of less than 10 m, which extends from Ostrov Bol'shoy Routan and Ostrov Malyy Routan, so as to come out onto the Chaunskiy Range Line. On arriving at the Chaunskiy Range Line, turn to port and head along this range line (in line bearing 255.6°–075.6°) to the Prolivnyy Range Line, and then along the Prolivnyy Range Line, avoiding to port shoals with depths of less than 4m which extend ESE from Ostrov Malyy Routan.

Caution.—When lying at anchor and at a berth in Port Pevek, keep a careful watch for drifting ice, which may appear in port waters during N winds.

The Akademik Lomonosov, a floating nuclear power plant, is permanently moored in Pevek. Restrictions to navigation may be established in the vicinity of the power plant. Mariners are advised to contact local authorities for the latest information.

8.14 Ostrova Roatan (69°45'N., 170°05'E.), formed by two islands, lies 2.5 miles off the NW side of Poluostrov Pevek. Ostrov Bol'shoy Routan, the northernmost, larger, and tallest island, is 79m high. Kosa Routan, a sand bar, extends about 1.5 miles E from the NE end of this island. A light is shown from a tower, 10m high, standing on its E extremity. A submerged spit extends ESE from the E extremity of the sand bar. A spit, with a depth of 3.4m over its outer edge, extends 2.3 miles W from the W extremity of the island.

Ostrov Malyy Routan lies 1 mile S of Ostrov Bol'shoy Routan. A beacon stands on the SW side of this island. A spit, with a depth of 3m over its outer end, extends 1.2 miles ESE from the SE extremity of this island.

Proliv Pevek, lying between Poluostrov Pevek and Ostrova Routan, affords the best anchorage in Chaunskaya Guba; designated anchorage areas are best seen on the chart. The fairway channel has depths of 13 to 20m, but it is very winding and local knowledge is required. Both the N and S approaches to Proliv Pevek are marked by lighted ranges.

Caution.—This area is subject to strong S winds which, at times, attain gale force and usually last for 3 to 4 days.

Chaunskaya Guba to Mys Billingsa

8.15 Between Mys Shelagskiy and Mys Kibera, 48 miles E, the coast rises, a short distance inland, to a ridge of high land. Mys Kibera, 5m high, is the N extremity of a high projection with gentle slopes terminating in rocky cliffs. Mys Koz'mina, located 25 miles ESE of Mys Shelagskiy, is steep and rugged, but not conspicuous. The coast to the W of this point is slightly higher than that to the E of it.

Ostrov Shalaurova (69°59'N., 172°47'E.) lies 1 mile N of Mys Kibera. A light is shown from a structure, 6m high, standing on this island. The channel leading between the island and the point can only be used by small craft. Anchorage can be taken, in a depth of 4m, off the SE side of the island, but vessels should also secure lines to the shore. The anchorage berth is sheltered from heavy ice pressure and winds from S through W to N.

Guba Nol'de is entered between Mys Kibera and Mys Aachim, 12 miles ESE. It extends 14 miles in a SE direction and has a general width of 5 miles. This bay is divided into two parts by Mys Perkayon, which projects from the SW side 11 miles SE of Mys Kibera, and by a spit which extends from Mys Aachim towards Mys Perkayon. Between the extremities of the point and the spit, a narrow channel, with a least depth of 3.7m, leads to the inner part of the bay.

The spit rises above-water in places and a small islet lies on its N part. Several rivers flow into the head of the bay, which is shallow. The outer part of the bay has depths of up to 13m and the inner part has a depth of 1.8m.

Vessels entering the bay should keep close to the SW side. Small craft, when entering the inner part of the bay, should keep close to Mys Perkayon. With N winds, the outer part of the bay becomes filled with ice. Ice floes sometimes enter the inner part of the bay.

Mys Aachim is the NW extremity of a low and very uniform peninsula which forms the E side of the bay. This point is reported to be difficult to identify. A light is shown from a structure, 9m high, standing on the point. The coastal bank, with depths of 7m or less, extends about 5 miles NE from this point.

8.16 Mys Shalaurova Izba (69°50'N., 174°31'E.) is located 30 miles ESE of Mys Aachim. The first 12 miles of this stretch of coast has a low, cliffy face. However, the remainder of the coast is so low that it cannot be seen from seaward. The entire stretch is fringed by a drying shoal which extends up to 5 miles offshore. A light is shown from a structure, 12m high, standing on Mys Shalaurova Izba. Four pillar-shaped rocks, which resemble small houses, stand at the extremity of the point. Several below-water rocks extend up to about 1.5 miles NE of the point.

Mys Kekurnyy, located 5.2 miles ESE of Mys Shalaurova Izba, is marked by a solitary, comparatively wide, and low rock with a flat top. This pillar-shaped rock is especially conspicuous from ENE. Several below-water rocks fringe the point and extend up to 1 mile offshore. A light is shown from a structure, 19m high, standing on the coast, 11 miles E of the point.

Mys Billingsa (69°52'N., 176°05'E.) is located 25 miles ENE of Mys Kekurnyy. A light, with a racon, is shown from a tower, 19m high, standing on this point. A lagoon extends up to 20 miles W of the point and is separated from the sea by a shingle spit. A polar station is situated on this spit, 6 miles W of the point. Vessels can anchor, in a depth of 15m, about 3 miles N of the station. A shoal bank, with depths of less than 9m, extends up to 5 miles offshore between the polar station and the point.

Mys Billingsa to Mys Ikigur

8.17 From Mys Billingsa, the coast trends SE for 33 miles to Mys Yakan and consists, in general, of low tundra with numerous lagoons backed by high ground. Between 5 and 9 miles SE of Mys Billingsa, the high ground extends to the coast and forms earth and sand cliffs fringed by a narrow, sandy beach. Mys Emmatagen is located 13 miles SE of Mys Billingsa. A shoal, with a depth of 9m, lies about 3.5 miles NE of this point.

Mys Yakan (69°35'N., 177°30'E.) rises to a hill, 150m high, with a rounded summit and gentle slopes marked by dark-colored landslides. It is located 39 miles ESE of Mys Emmatagen. A light is shown from a structure, 6m high, standing on this point. Several settlements are situated in the vicinity of this point.

Laguna Olennaya, a shallow lagoon, is entered 7 miles SE of Mys Yakan. Between the entrance to this lagoon and the entrance to Laguna Rypil'gyn, 10 miles ESE, the coast is, at first, formed of low tundra. It then rises gradually and becomes bold, with rocky cliffs in places. Laguna Rypil'gyn has an entrance, about 180m wide, which can be used by small craft. A light is shown from a structure, 6m high, standing on the E part of the spit which fronts the lagoon. A radiobeacon is reported to be situated at the light.

8.18 Laguna Kuepil'khin (69°15'N., 179°15'E.), entered 27 miles ESE of Laguna Rypil'gyn, has an entrance, 160m wide. There are depths of 3m in the entrance and 1.3m about 0.5 mile within the lagoon. A light is shown from a structure standing 7 miles SE of the entrance. A radiobeacon is reported to be situated at the light.

Mys Otto Schmidta (Mys Ryrkarpiy) (68°57'N., 179°28'W.) consists of two cliffy promontories which appear as two small islands from seaward. The E promontory, 46m high, has a flat summit. The W promontory, 90m high, rises steeply from the sea and slopes gently towards the mainland. A light is shown a structure standing on the W promontory.

Bukhta Severnyy, a bay, is entered between the two promontories. It is 0.5 mile wide and indents the coast for 0.2 mile. Although this bay is open to the N, it affords a safe wintering place as the promontories offer protection against the ice during the entire winter. There are depths of 10m in the entrance and 5.8 to 6.7m in the center of the bay. Good landing can be obtained anywhere in the bay. A wharf, 300m long and composed of ice with 1m of sand and gravel on top, has been constructed in the vicinity of Mys Otto Shmidta, presumably in the bay. Several settlements, including an airbase and a polar station, are situated on the S and SW shores of the bay. This bay affords the best anchorage on this part of the coast.

Laguna Tenkergykynmangky (Laguna Tenkergynpil'gyn) (68°35'N., 178°24'W.) is the largest lagoon lying between Mys Vankarem and Mys Otto Shmidta. The entrance, nearly 0.2 mile wide, can be identified by a log house, situated 1 mile NW of it, and by a beacon, standing 1 mile SE of it. A light is shown from a structure, 12m high, standing close NW of the beacon. Depths of 1.8m lie close off the SE entrance point and depths of 3m lie close off the NW entrance point. A narrow channel leads into the lagoon from Laguna Amguema which has depths of 0.9 to 3m. Small craft, with local knowledge, can obtain anchorage inside this lagoon.

8.19 Laguna Amguema (68°16'N., 177°35'W.) is entered between the extremity of Kosa Dvukh Pilotov and a point, 2 miles SE. A flat islet, 16m high, lies close inside the E entrance point of this lagoon. Small craft can obtain anchorage close off the E side of this islet. The entrance channel has a depth of 3m and leads between numerous shoals. A river empties into the lagoon and is used by local small craft which are reported to travel up to 150 miles upstream. An unconfirmed report states that a channel, with depths of 1.2 to

1.5m, leads into the river and that these depths are maintained up to 50 miles upstream.

8.20 Kosa Dvukh Pilotov (68°18'N., 177°38'W.) lies with its E extremity located 9.5 miles NW of the entrance to Laguna Ukouge Pil'khin. This spit extends for about 7 miles in a NW direction and separates Laguna Amguyema from the sea. The seaward side of this spit affords good landing places. A light is shown from a structure, 11m high, standing 4.5 miles NW of the E extremity of the spit.

Laguna Ukouge Pil'khin is entered 20 miles SE of Kosa Dvukh Pilotov. This lagoon has an entrance about 180m wide with some disused huts standing on its E side. Depths of up to 2m lie on the bar fronting the entrance and up to 3.4m inside the entrance. However, the lagoon is reported to be mostly shallow. A channel, with depths of 1.2 to 2m, is reported to lead through the lagoon to the mouth of a river.

Laguna Nutauge lies 9 miles NW of Mys Vankarem. A light is shown from a structure, 12m high, standing on the sandspit, which separates this lagoon from the sea, 23 miles N of the point.

Laguna Vankarem (67°47'N., 176°00'W.), a large lagoon, is entered 2 miles S of Mys Vankarem. A river flows into the S part and its entrance, between two spits, is about 0.3 mile wide. A shallow shoal patch lies in the center of the approach and navigable channels pass to both sides of it. There are depths of 2.4 to 3m inside the lagoon. Small vessels should keep close to the NW entrance spit when entering the lagoon. Anchorage in the entrance is not recommended as the strong tidal currents carry ice through it. The best anchorage berth for small craft lies close inside the extremity of the NW spit.

Ostrov Karkarpko, lying 2 miles NE of the entrance to Laguna Vankarem, is a low crescent-shaped islet. During bad weather, small vessels can find shelter under the lee of this islet.

8.21 Mys Vankarem (67°50'N., 175°50'W.) is formed by a rugged peninsula which is 1 mile long and 65m high at its seaward end. From this peninsula, the land slopes gently down to a low isthmus on which the settlement of Vankarem is situated. A light is shown from a structure, 10m high, standing on the E extremity of Mys Vankarem and another light is shown from a structure, 12m high, standing near the settlement. Vessels can obtain anchorage, in depths of 9 to 11m, abreast the settlement and about 1 mile offshore.

Gora Vankarem, 240m high, has two table-topped summits. This hill stands 13 miles W of Mys Vankarem and is prominent from seaward.

Mys Onman (67°40'N., 175°16'W.), located 15 miles SE of Mys Vankarem, is steep-to and rises to a hill, 125m high. Cliffs face the E and N sides of this cape and a conspicuous terrace is located on its W slope. The cape terminates in two rocky points, 0.7 mile apart, between which lies a small cove with steep sides. Gora Rentel Onman stands 3.5 miles W of the cape. This hill is 266m high and prominent.

Ostrov Kolyuchin (67°28'N., 174°36'W.), 190m high, lies with its N extremity located 18 miles SE of Mys Onman. A camp, used during the hunting season, is situated on the island and a settlement stands on a spit close to the NW extremity. It was reported that a polar station had been established on the island.

The passage lying between the island and the mainland is 6 miles wide and has a least depth of 8.2m in the fairway channel. It is reported that numerous ice floes have been seen aground on a bank which extends up to 2.5 miles seaward from the mainland in this vicinity.

Anchorage, sheltered from the N and E, can be obtained, in a depth of 11m, abreast the settlement standing on the spit. A depth of 7.3m lies 1 mile offshore in this vicinity.

8.22 Krest Belyaka (Kosa Belyaka), a sand and shingle spit, lies with its root located 11 miles WSW of Mys Dzhenretlen. It extends 11 miles W to the entrance of Kolyuchinskaya Guba. A conspicuous wooden cross stands on the NW side of the W end of this spit. A beacon is reported to stand in the vicinity of the cross.

Kolyuchinskaya Guba is entered between the W extremity of Krest Belyaka and a point, 1.5 miles W. This bay is 35 miles long and 15 to 20 miles wide. The S and W shores of the bay are formed by the slopes of hills and the E side is high, though not as high as the W side. Two rivers flow into the SE part of the bay. It has been reported that there are depths of 12m in the approach and 14m in the entrance of the bay. The bay has general depths of 5.5 to 16m. Anchorage can be obtained, in depths of 11 to 15m, about 1 mile from Krest Belyaka and S of the wooden cross.

8.23 Mys Dzhenretlen (67°06'N., 173°39'W.), a bold and rugged cape, projects from the low coast and two small hills stand near it. A light is shown from a tower, 12m high, standing on the N side of the westernmost hill. A meteorological station is situated on the cape and its buildings and radio masts are visible from seaward. Landing can be effected near the masts. Depths of 6.7 to 8.2m lie up to 1 mile offshore in the vicinity of the radio masts.

Ostrov Idlidlya, a flat island, lies 19 miles E of Mys Dzhenretlen and is 20m high. It is higher than the mainland and conspicuous from seaward. A large pillar rock lies close NE of the NW extremity of this island. A sunken spit extends 0.3 mile S from the island. A tower stands on the island and is reported to be very radar conspicuous. A small islet is reported to lie about 3.5 miles E of the island.

Mys Serdtse-Kamen (66°57'N., 171°43'W.) rises in steep cliffs to a detached mountain, 409m high, which stands at the extremity of a mountainous ridge. A small, horseshoe-shaped bay lies on the E side of the cape. It has depths of 9 to 10m, but may contain dangers.

Mys Ikigur (66°45'N., 171°21'W.) is located 13 miles SE of Mys Serdtse-Kamen and two pinnacle rocks lie close off its E side. This cape has sloping sides and is faced by bold, dark-colored cliffs. Vessels, with drafts of up to 7m, can round the cape at a distance of 0.4 mile as it is steep-to.

Mys Ikigur to Mys Uelen

8.24 Mys Volnistyy is located 20 miles SE of Mys Ikigur and appears as a rugged hill. Between these two capes, the coast is lofty and, in places, bold, except for a stretch, about 1 mile long, located midway. Here, the hills slope gently to the coast near the mouth of Reka Chegtun, a large river navigable by small craft. Kipetlen Light is shown from a structure standing near the coast, 2 miles WNW of this river mouth.

Mys Intsova (Mys Inchou) (66°17'N., 170°11'W.) is a steep and rocky cape. A large pinnacle rock lies close off the W extremity of this cape, but it is not easy to identify from seaward against the background coast.

Laguna Inchou is entered 3 miles WNW of Mys Intsova and between two narrow spits. The mouth of the lagoon is 90m wide and has depths of 2.7 to 4.9m. Ostrovok Vkhodnoy, a flat islet, lies in the lagoon, opposite the mouth. From seaward, this islet appears to be part of the coast. The channel leading into the lagoon has a least depth of 1.2m and lies between this islet and the W spit. A settlement is reported to be situated on the NE side of the lagoon. Small vessels, with local knowledge, can obtain anchorage in the mouth of the lagoon. A light is shown from a structure, 14m high, standing near the coast, 2.8 miles W of the entrance to the lagoon.

Mys Unikin (66°22'N., 170°35'W.) is located 6 miles WNW of the entrance to Laguna Inchou. This cape appears from seaward as a rugged hill.

8.25 Mys Uelen (66°09'N., 169°43'W.) is located 14 miles SE of Mys Intsova. From this point, the high land of the peninsula, which terminates at Mys Dezhneva, slopes down to a shingle spit, 2 miles WNW. This spit separates Laguna Uelen from the sea and a village is situated on its root. A light is shown from a tower, 8m high, standing close E of the root of the spit. It is reported that small craft, with drafts of up to 2m, can enter the lagoon. During fair weather, vessels can anchor, in depths of 14 to 16m, mud, about 1 mile offshore, abreast the village.

Caution.—A submerged buoy, with a clearance of 13.7m, lies about 22 miles ESE of Mys Uelen and is best seen on the chart.

For a description of the coast to the S of Mys Uelen, see Sailing Directions, Pub. 155 (Enroute) East Coast of Russia.

Ostrov Vrangelya

8.26 Ostrov Vrangelya (71°20'N., 179°00'E.) is about 80 miles long and 40 miles wide. This island is separated from the mainland by Proliv Longa which has a least width of 75 miles. Two separate mountain ranges extend across the island, the southernmost range being the shorter, but higher. The northernmost range is not conspicuous when seen from the S. The summit of the island is about 1,000m high and rises within a mountainous mass at the middle of the southernmost range. Its peak is conical and prominent from the S, but is usually obscured by clouds. A small, isolated group of dome-shaped hills stands near **Mys Pillar** (71°09'N., 177°30'E.), a point located on the E side of the island.

The foothills and the low-lying ground, except the belt of swampy land near the coast, consist of a stony form of tundra. Several rivers discharge along the shores of the island, but can only be used by small boats. A number of small settlements stand along the shores.

In years with exceptionally favorable ice conditions, the island can be reached by non-icebreaking vessels during the months of August and September. During average years, only the second half of August and the first part of September are favorable for such vessels.

8.27 Mys Gavai (71°02'N., 177°52'W.), a prominent cape, is the SE extremity of Ostrov Vrangelya. It consists of two projecting points, between which lies a small bay with a sandy beach. The cape is 50m high and has a seaward face formed by a series of steep terraces. The cliffs, which extend close W of this cape, decrease to a height of 10m and are dark brown, almost black. Vessels can anchor, in a depth of 12m, about 0.5 mile off the cape.

Bukhta Rodzhersa (Bukhta Rodgers) is entered 12 miles WSW of Mys Gavia and forms a harbor which extends E for 4 miles between the mainland and a low, shingle spit. This bay has a general width of 0.5 mile, but, in places, it is narrowed to a width of 0.2 mile by spits projecting from either side. A settlement and a polar station are situated on a spit at the N side of the harbor, 0.5 mile inside the entrance, and form the administrative center of the island.

There are depths of 5.8 to 6.7m in the entrance and 2.1 to 5.8m within the harbor. The bottom in the middle of the harbor and to the E of the settlement shoals abruptly to depths of less than 0.9m. Even when the harbor appears to be free from ice, it must be entered with great care as some of the previous years ice may lie, covered with mud and sand, on the bottom and may not be visible.

A beacon stands on the S side of the entrance. It is reported that a radiobeacon is situated near this beacon. Cairns stand on the summits of hills which rise 1 mile N and 1.5 miles NE of the settlement.

Several prominent radio masts stand close to the settlement. Gora Aternon rises 7 miles WNW of the harbor and is the tallest hill on the S side of the island. This peak is 385m high and prominent from seaward.

Bukhta Somnitel'naya is entered 22 miles WSW of Bukhta Rodzhersa. This bay is 2.5 miles wide and lies at the E end of a large bight. A polar station was reported to have been established on the shore of this bay.

8.28 Mys Blossom (70°47'N., 178°47'E.), which forms the SW extremity of Ostrov Vrangelya, is the S extremity of a low, shingle spit. This spit is wide and steep-to on its E and W sides, but grounded floebergs have been observed off its S side. A settlement is situated on the E side of the spit, 3 miles N of the point. A beacon stands on the point and a radiobeacon is situated about 1 mile NW of it. A polar station is reported to have been established on Mys Blossom.

Laguna Vaygach, a salt water lagoon, lies between the coast and a low spit which extends N for 7 miles from Mys Blossom.

Mys Zanos, formed by cliffs, is the W extremity of Ostrov Vrangelya. Mys Gilder is located 5 miles NNW of Mys Zanos and is backed by a prominent mountain, 320m high.

Mys Uering (Mys Waring) (71°14'N., 177°29'W.), the E extremity of Ostrov Vrangelya, is located at the termination of the coastal hills and consists of weathered cliffs, 150m high. This point is prominent from seaward and two small needle-like crags are located on its N slope. Several pinnacle rocks fringe this steep-to point.

Bukhta Dragi is entered between Mys Uering and Mys Litke, 2.5 miles NW. There are depths of 8.2 to 9.1m in the entrance to this bay, but it is open to the NE and affords no protection from ice.

Zaliv Dublitskogo is entered WNW of Mys Litke and is open to the N and often filled with ice. This gulf is not deep, but it is reported that vessels have taken anchorage within it.

Ostrov Andrionova, divided into two parts by a narrow channel, lies off the N entrance point of Zaliv Dublitskogo. It is the southeasternmost island of a chain of long and narrow islands which lies between 0.5 mile and 2 miles offshore and extends 30 miles WNW.

Ostrov Herald and Banka Herald

8.29 Ostrov Geral'd (71°23'N., 175°39'W.), which extends about 6 miles in a SE/NW direction, lies 33 miles ENE of the E extremity of Ostrov Vrangelya. This island is rocky and its shores consist mainly of inaccessible cliffs and landslides.

Landing can be effected on the shore of a small bight lying a close NW of the S extremity of the island. It was reported that a vessel had anchored, in a depth of 20m, about 0.5 mile W of the S extremity. A reef is reported to extend up to about 9 miles W from the NW extremity of the island, but it has not been fully examined. A depth of 12.8m was reported to lie over the W end of this reef and a rock, with a depth of 1.8m, lies on the reef, 6 miles from the shore.

Ice, apparently aground, with breakers in the vicinity is reported to have been observed off the SW extremity of the island. It was reported (1937) that an unnamed island lies about 55 miles NE of Ostrov Herald.

Banka Geral'd (Banka Herald) (70°28'N., 171°15'W.), lying about 100 miles SE of Ostrov Herald, is reported to have a least depth of 12.8m. It was reported (1961) that this bank has a least depth of 16.4m and lies about 97 miles SE of Ostrov Herald.

Glossaries

Russian

Russian	English
B	
bakan	large buoy
baklysh	rock above water
banka	shoal, bank
bar	bar
bashnya	tower
basseyn	basin, wet dock
belyy, belaya, beloye	white
bel-yy-aya, -oye	white
bereg	shore, river bank, coast, beach, bank of a stream
beregov-oy, -aya, -oye	coastal
beregovoy, beregovaya, beregovoye	littoral, coastal
berezhn-y, -aya, -oye	inner, close offshore
bochka	mooring buoy, barrel buoy
boloto	swamp, marsh
bol'sh-ov, -aya, -oye	great, large
bol'shoy, bol'shaya, bol'shoye	large, big
bol'sh-oy,-aya,-oye	great, large
bryuaga	pier, landing stage
bryuage	pier, landing stage
buek	small boat or float
bugor	hill, mound
bukhta	bight, inlet, bay, roadstead
bukhtochka	cove, bay
burun	breaker
buruny	breakers
buy	buoy
C	
chern-yy, -aya, -oye	black
chernyy, chernaya, chernoye	black
D	
damba	seawall, dike
del'ta	delta
derevnya	village
derevo	tree
dlinn-yy, -aya, -oye	long
dok	dock
dolgota	longitude
dolina	valley

Russian

Russian	English
dom	house
doroga	road
dyuny	dunes
dyun-y, a	dunes, dune
dyun-y,a	dunes, dune
E	
elling	slipway
F	
farvater	channel, fairway
fiord	fiord
fort	fort
G	
gavan	harbor, basin, bay
glubok-iy, -aya, -oye	deep
golets, gol'tsy	mountain, peak
golomyann-yy, -aya, -oye	open sea
golova	head (of pier)
gora	mountain, hill
gorlo	strait
gorod	city, town
gorodok	small town
granitsa	boundary
greben'	crest, ridge
gryada, gryady	mountains, hill, bank, ridge
guba	arm, recess, bay
guriy	cairn
I	
il	mud
ilist-yy, -aya, -oye	muddy
K	
kalasadam	fishing harbor
kamen'	rock, stone
kamennyy	masonry, stony, rocky
kammi	rocks, stones
kamni	rocks, stones
kamyennaya banka	rocky shoal
kamyennaya gryada	spit
kanal	channel, canal
kanava	ditch
karestik	rapids, cataract
kekur	pillar, rock
kholm	hillock

Russian

Russian	English
khram	temple
khrebet	ridge, mountain range, mountains
koleno	reach (of a channel, etc.), bend
korga	rocky shoal
korotk -iy, -aya, -oye	short
kosa	spit
koshka	drying shoal
kovsh	cove
kran	crane
krasn-yy, -aya, -oye	red
kray	major admin region
krest	cross
krutoy, -aya, -oye, -ye	steep
kryazh	ridge, hill, mountains
kultuk	bay
kungas	flat-bottomed craft
kurgan	artificial hillock
L	
laguna	lagoon
lakhti	bay, cove, bight, gulf
led	ice
lednik	glacier
les	forest
lesnoy	wooded, forest
liman	estuary, lake, lagoon, bay, firth
lotsman	pilot
lotsmanskaya stantsiya	pilot station
luda, ludka	small rocky islet
lug	meadow
M	
machta	mast
mal -yye, -aya, -oye	little, small
malen'k -iy, -aya, -oye	little, small
malyy, malaya, maloye	small, little
materik	mainland, continent
mayak	lighthouse
mel'	shoal
melk -iy, -aya, -oye	shallow, shoal
melkovodn -y, -aya, -oye	shallow
meridian	meridian
milya	mile
mol	mole, jetty

Russian

Russian	English
more	sea, sound
morskaya kapusta	kelp
morskoy, morskaya, morskoye	most seaward (adj)
most	bridge
myel	shoal
myelk -y, -aya, -oye	shallow
mys	cape, headland, point
N	
nadstroyka	superstructure
nadvodn -y, -aya, -oye	above water
nadvodnyy, nadvodnaya, nadvodnoye	above water
navolok	cape, headland
nizhn -iy, -yaya, -eye	lower
nizhniy, nizhnyaya, nizhneye	lower
nizk -iy, -aya, -oye	low
nizkiy, nizkaya, nizkoye	low
nos	cape, spit, point, promontory, headland
nov -yy, -aya, -oye	new
novyy, novaya, novoye	new
O	
oblast'	administrative division, district, province
obryv	bluff, precipice
ogon'	light (or fire)
okean	ocean
okrug	admin division of region
opasnot'	danger
ostrov	island
ostrova	islands
ostrovok	islet
osushka	drying patch
osyp'	landslide
otlichitel'nyy	distinguishing
otliv	ebb
otmel	shoal, bank or reef extending from shore
otmel'	coastal shoal
ozero	lake
P	
pakhta	bluff, stony bank
perebor, perekat	bar, ledge, shoals
peredn -iy, -yaya, -eyc	front

Russian

Russian	English
perekat	shifting bar
peresheek	isthmus
peresheyek	isthmus
perv -yy, -aya, -oye	first
peschan -yy, -aya, -oye	sandy
peschanyy	sandy
pesok	sand, sandbank
pik	peak, mountain
pirs	jetty, pier
plavnya	mud flat
ploskogor'ye	tableland
plotina	dam
poberezh'ye, pomor'ye	coast, seashore
podvodn -yy, -aya, -oye	submerged
podvodnyy	submerged
poluostrov	peninsula
polyus	pole (geographic)
pomor'ye	coast
porogi	rapids, falls
port	port, harbor
poselok	village, settlement
priberezh'ye	coast, shore
prikladnoy chas	mean high water interval
priliv	flood (tide)
primorskiy	maritime
pristan'	pier, jetty, landing
pritok	tributary
prokhod	passage, pass
proliv	strait, channel
promezhutochnyy	intermediate
proseka	clearing through forest
protok	canal, channel, water-course
protoka	channel in river delta, effluent, arm of a river
pustynya	desert
put'	route, way
pyatno	shoal patch, patch

R

radiomayak	radiobeacon
ravnina	plain
razvaliny	ruins
rechka	rivulet, stream
reka	river
reyd	roadstead

Russian

Russian	English
rif	reef
rossyp'	sandbank
rozhok	cape
ruchey	creek
rukav	channel, stream, branch, arm (of a river)

S

selenie	settlement
seleniye, selo	settlement, village
selo	village
seredina	middle
seriy	gray
sever	north
severn -yy, -aya, -oye	northern
severnyy, severnaya, severnoye	northern
shar	strait
shchel'	gap, gorge, crevice
shest	pole, staff
shirota	latitude
shkhery	skerries
siniy	blue
skala	rock, cliff
sneg	snow
somnitel'no	is doubtful
sopka	hill, volcano, mountain
spornyy	conflicting
sredn -yy, -yaya, -eye	middle
sredniy, srednaya, sredneye	middle, average
stamik	shoal, rock
stanovishche	camp, fishing village
star -yy, -aya, -oye	old
staryy	old
stolb	post, column, upright rock
strelka	narrow spit, spit
stvor	range
stvornyy znak	range beacon
sukh -oy, -aya, -oye	dry
sukhoy, sukhaya, sukhoye	dry
suzem, susha	dry land

T

techenie	current
techeniye	current
temn -y, -aya, -oye	dark color
tine	ooze, mud

Russian

Russian	English
tolcheya	confused sea
tolst -yy, -aya, -oye	thick
tonk -iy, -aya, -oye	thin
tret -iy, ‘ya, ‘ye	third
tropik	tropic
tsentr	center
tserkov’	church
tundra	tundra
tunnel’	tunnel
U	
ushchel’ye	canyon
ust’ye	river mouth, channel
utes	cliff, crag
V	
valuny	boulders
vekha	spar buoy
verkhn -iy, -yaya, -eye	upper
verkhniy, verkhnaya, verkhneye	upper
vershina	summit, peak
vkhod	entrance, inlet
vneshn -iy, -yaya, -eye	outer
vneshniy	outer
vnutrenn -iy, -yaya, -eye	inner
vnutrenniy	inner
vodopad	waterfall
vodorosl’ morskaya	seaweed
vodorosli	sea weeds
vodorsl’morskaya	seaweed
vodovorot	whirlpool, eddy
volnolom	breakwater
vorota	entrance, strait, channel pass
vostochn -yy, -aya, -oye	eastern
vostochnyy, vostochnaya, vostoch-noye	eastern

Russian

Russian	English
vostok	east
vozyshenie	high land
vtor -oy, -aya, -oye	second
vulkan	volcano
vyerkhn -u, -yaya, -eye	upper
vyerkhun -u, yaya, eye	upper
vyssh -iy, -aya, -eye	higher
Y	
yakornoye mesto	anchorage
yar(y)	cliff(s), steep bank(s)
yug	south
yuzhn -yy, -aya, -oye	southern
yuzhnyy, yuzhnaya, yuzh-noye	southern
Z	
zadn -iy, -yaya, -eye	rear
zaimka	settlement, farm
zaliv	gulf, bay, inlet
zamok	castle
zapad	west
zapadn -yy, -yaya, -oye	western
zapadnyy, zapadnaya, zapadnoye	western
zastruga	sandbar, sandspit, sand-bank
zavod	factory, mill, plant
zavod’	cove, inlet
zelen -yy, -aya, -oye	green
zelenyy, zelenaya, zele-noye	green
zemlya	land, island
zhelt -y, -aya, -oye	yellow
znak	beacon, mark
zona	zone
zvelav’ye	cape, point

Index - Gazetteer

How to use the Index—Gazetteer

Geographic names of navigational features are generally those used by the nation having sovereignty and are listed alphabetically. Diacritical marks, such as accents, cedillas, and circumflexes, which are related to specific letters in certain foreign languages, are not used in the interest of typographical simplicity.

Geographic names or their spellings do not necessarily reflect recognition of the political status of an area by the United States Government. Positions are approximate and are intended merely as locators to facilitate reference to the charts.

To use as a Gazetteer note the position and Sector number of the feature and refer to the Chart Information diagram for the Sector. Plot the approximate position of the feature on this diagram and note the approximate chart number.

To use as an Index of features described in the text note the paragraph number at the right. To locate this feature on the best scale chart use the Gazetteer procedure above.

P

Record of Updates

Date	Action	Sector	Sector Paragraph(s)	User Notes
21 JAN 2026	**Change**	Sector 1	1.24	
	Change	Sector 2	2.38	
	Change	Sector 2	2.4	
	Change	Sector 5	5.2	
	Change	Sector 5	5.28	
	Change	Sector 5	5.39	

This record is intended to document all critical updates applied to this publication since the announcement and availability of the New Edition. Affected content within the Sectors is indicated by a vertical black bar to the left of the text.

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