



**PUB. 114**  
**LIST OF LIGHTS**

RADIO AIDS AND FOG SIGNALS

**2024**

BRITISH ISLES, ENGLISH CHANNEL AND  
NORTH SEA

**IMPORTANT**

**MARINERS SHOULD REFER TO NGA'S MARITIME SAFETY  
INFORMATION WEBSITE TO OBTAIN THE MOST RECENT  
VERSION OF THIS PUBLICATION**

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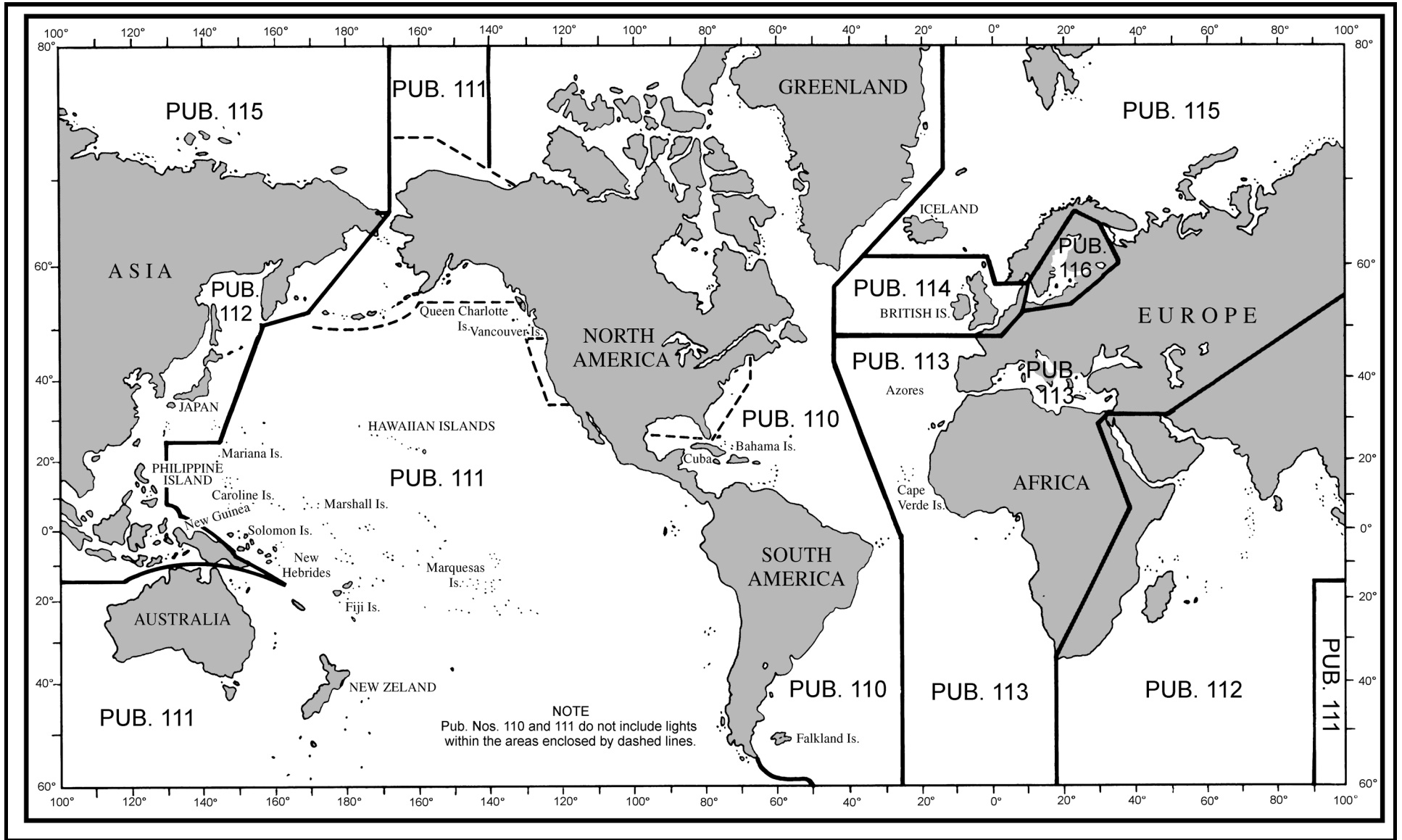


Prepared and published by the  
NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY  
Springfield, VA

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# LIST OF LIGHTS LIMITS

## NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY



## WARNING ON USE OF FLOATING AIDS TO NAVIGATION TO FIX A NAVIGATIONAL POSITION

The aids to navigation depicted on charts comprise a system consisting of fixed and floating aids with varying degrees of reliability. Therefore, prudent mariners will not rely solely on any single aid to navigation, particularly a floating aid.

The buoy symbol is used to indicate the approximate position of the buoy body and the sinker which secures the buoy to the seabed. The approximate position is used because of practical limitations in positioning and maintaining buoys and their sinkers in precise geographical locations. These limitations include, but are not limited to, inherent imprecisions in position fixing methods, prevailing atmospheric and sea conditions, the slope of and the material making up the seabed, the fact that buoys are moored to sinkers by varying lengths of chain, and the fact that buoy and/or sinker positions are not under continuous surveillance but are normally checked only during periodic maintenance visits which often occur more than a year apart. The position of the buoy body can be expected to shift inside and outside the charting symbol due to the forces of nature. The mariner is also cautioned that buoys are liable to be carried away, shifted, capsized, sunk, etc. Lighted buoys may be extinguished or sound signals may not function as the result of ice or other natural causes, collisions, or other accidents.

For the foregoing reasons, a prudent mariner must not rely completely upon the position or operation of floating aids to navigation, but will also utilize bearings from fixed objects and aids to navigation on shore. Further, a vessel attempting to pass close aboard always risks collision with a yawing buoy or with the obstruction the buoy marks.

## PREFACE

The 2024 edition of Pub. 114, List of Lights, Radio Aids and Fog Signals for the British Isles, English Channel and North Sea, cancels the previous edition of Pub. 114.

This edition contains information available to the National Geospatial-Intelligence Agency (NGA) up to 29 June 2024, including Notice to Mariners No. 26 of 2024.

## EXPLANATORY REMARKS

The National Geospatial-Intelligence Agency publishes a List of Lights, Radio Aids and Fog Signals in seven volumes divided geographically as shown on the index chartlet on the inside front cover of this book. Major fixed and outermost floating aids to navigation, such as sea buoys, safety fairway buoys, traffic separation buoys, etc., are listed. Other floating aids are not generally listed. Storm signals, signal stations, radio direction finders, radiobeacons, RACONs and RAMARKs located at or near lights are found in this List. Individual Radiobeacons and DGPS Stations are listed in a separate section in the back of this publication.

Nothing in the manner of presentation of information in this publication or in the arrangement of material implies endorsement or acceptance by NGA in matters affecting the status and boundaries of States and Territories.

## CORRECTIVE INFORMATION

Updates to the List of Lights are no longer published in NGA's weekly Notice to Mariners. The List of Lights publications are updated monthly and made available as downloadable PDFs on the NGA's Maritime Safety Information (MSI) website at <https://msi.nga.mil>. Mariners should refer to the MSI website to obtain the latest List of Lights information.

Users should refer corrections, additions, and comments to NGA's Maritime Operations Desk, as follows:

1. Maritime Quality Feedback System: <https://marhelp.nga.mil/>
2. Toll free: 1-800-362-6289
3. Commercial: 571-557-5455
4. DSN: 547-5455
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6. Maritime Domain website: <https://msi.nga.mil>
7. E-mail: [navsafety@nga.mil](mailto:navsafety@nga.mil)
8. Mailing Address:

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NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY  
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## DESCRIPTION

(Lights, Buoys, RACONs, RAMARKs)

Information is tabulated in eight columns as follows:

**Column 1:** The number assigned to each light, RACON or RAMARK by this Agency. International numbers are listed below this number in italic type and in a cross reference in the back of the book. RACONs and RAMARKs located at a light are listed with the light. Those not located at a light are assigned separate numbers.

**Column 2:** Name and descriptive location of the light or buoy, RACON or RAMARK. A dash (-) or dashes (--) in this column is used to reduce repetition of principal geographic names. This column is intended to describe the location of the navigational aid and to distinguish it from others in proximity. Differences in type indicate the following:

**Bold-faced:** Lights intended for landfall or having a visibility (range) of 15 miles or more.

*Italics:* Floating aids.

*ITALICS CAPITALS:* Lightships and LANBYs.

Roman: All other lights not mentioned above.

**Column 3:** Approximate latitude and longitude of a navigational aid to the nearest tenth of a minute, intended to facilitate chart orientation (use column 2 and the appropriate chart for precise positioning).

**Column 4:** Light, buoy, RACON or RAMARK characteristic (see Characteristics of Lights chart for explanation of lights).

**Column 5:** Height of light in feet measured from the focal plane of the fixed light to charted height datum. Equivalent measurement given in meters listed below in bold-faced type.

**Column 6:** Range. The distance, expressed in nautical miles, that a light can be seen in clear weather or that a RACON or RAMARK can be received.

**Column 7:** Description of the structure and its height in feet measured from the top of the structure to the ground.

Note—Stripes are vertical. Bands are horizontal. The use of the term “diagonal stripes” is the exception.

**Column 8:** Remarks—sectors, fog signals, radar reflectors, minor lights close by, radiobeacons, storm signals, signal stations, radio direction finders, and other pertinent information.

Geographic names or their spellings do not necessarily

reflect recognition of the political status of an area by the United States Government.

The names of lights may differ from geographic names on charts.

## ABBREVIATIONS


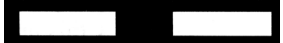





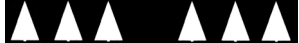





Where the lights of different countries intermingle in the list they are distinguished by the following letters:








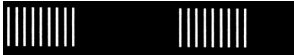


(B.)	Belgium
(F.)	Norway
(G.)	Germany
(N.)	Netherlands
(U.K.)	United Kingdom

Other abbreviations:

Al.—alternating	lt.—lit
bl.—blast	Mo.—Morse code
Bu.—blue	min.—minute
Dir.—directional	obsc.—obscured
ec.—eclipsed	Oc.—occulting
ev.—every	Or.—orange
F.—fixed	Q.—quick flashing
Fl.—flashing	R.—red
fl.—flash	s.—seconds
G.—green	si.—silent
horiz.—horizontal	U.Q.—ultra quick flashing
intens.—intensified	unintens.—unintensified
I.Q.—interrupted quick flashing	vert.—vertical
Iso.—isophase	Vi.—violet
I.V.Q.—interrupted very quick flashing	vis.—visible
Km.—kilometer (0.62137 mile)	V.Q.—very quick flashing
L.Fl.—long flashing	W.—white
	Y.—yellow

## CHARACTERISTICS OF LIGHTS

TYPE	ABBR.	GENERAL DESCRIPTION	ILLUSTRATION
Fixed	F.	A continuous and steady light.	
Occulting	Oc.	The total duration of light in a period is longer than the total duration of darkness and the intervals of darkness (eclipses) are usually of equal duration. Eclipse regularly repeated.	 Period 12s
Group occulting	Oc.(2)	An occulting light for which a group of eclipses, specified in number, is regularly repeated.	 Period 14s
Composite group occulting	Oc.(2+1)	A light similar to a group occulting light except that successive groups in a period have different numbers of eclipses.	 Period 9s
Isophase	Iso.	A light for which all durations of light and darkness are clearly equal.	 5s 5s
Flashing	Fl.	A light for which the total duration of light in a period is shorter than the total duration of darkness and the appearances of light (flashes) are usually of equal duration (at a rate of less than 50 flashes per minute).	 10s
Long flashing	L.Fl.	A single flashing light for which an appearance of light of not less than 2 sec. duration (long flash) is regularly repeated.	 Period 8s
Group flashing	Fl.(3)	A flashing light for which a group of flashes, specified in number, is regularly repeated.	 Period 12s
Composite group flashing	Fl.(2+1)	A light similar to a group flashing light except that successive groups in a period have different numbers of flashes.	 Period 15s
Quick flashing	Q.	A light for which a flash is regularly repeated at a rate of not less than 50 flashes per minute but less than 80 flashes per minute.	
Group quick flashing	Q.(3)	A light for which a specified group of flashes is regularly repeated; flashes are repeated at a rate of not less than 50 flashes per minute but less than 80 flashes per minute.	 Period 10s
	Q.(9)		 Period 12s
	Q.(6)+L.Fl.		 Period 15s

TYPE	ABBR.	GENERAL DESCRIPTION	ILLUSTRATION
Interrupted quick flashing	I.Q.	A light for which the sequence of quick flashes is interrupted by regularly repeated eclipses of constant and long duration.	
Very quick flashing	V.Q.	A light for which a flash is regularly repeated at a rate of not less than 80 flashes per minute but less than 160 flashes per minute.	
Group very quick flashing	V.Q.(3)	A light for which a specified group of very quick flashes is regularly repeated.	
	V.Q.(9)		
	V.Q.(6)+L.Fl.		
Interrupted very quick flashing	I.V.Q.	A light for which the sequence of very quick flashes is interrupted by regularly repeated eclipses of constant and long duration.	
Ultra quick flashing	U.Q.	A light for which a flash is regularly repeated at a rate of not less than 160 flashes per minute.	
Interrupted ultra quick flashing	I.U.Q.	A light for which the sequence of ultra quick flashes is interrupted by regularly repeated eclipses of constant and long duration.	
Morse code	Mo.(U)	A light for which appearances of light of two clearly different durations are grouped to represent a character or characters in Morse Code.	
Fixed and flashing	F.Fl.	A light for which a fixed light is combined with a flashing light of greater luminous intensity.	
Alternating light	Al.	A light showing different colors alternately.	

NOTE - Alternating lights may be used in combined form with most of the previous types of lights.

## NOMENCLATURE OF LIGHTS

Lights exhibit a distinctive appearance by which they are recognized, e.g. Fixed, Flashing, Group Flashing, etc. The properties of their appearance, by which they are distinguished, are referred to as the *characteristics* of the light. The principal characteristics are generally the sequence of intervals of light and darkness, and, in some cases, the sequence of colors of light exhibited.

*Fixed lights*—those which exhibit a continuous steady light.

*Rhythmic lights*—those which exhibit a sequence of intervals of light and eclipse (repeated at regular intervals) in a manner described in Chart No. 1 and this volume.

*Alternating lights*—rhythmic lights which exhibit different colors during each sequence.

*Period of a light*—the time occupied by an entire cycle of intervals of light(s) and eclipse(s).

*Range: Meteorological visibility*—the greatest distance at which a black object of suitable dimensions can be seen and recognized against the horizon sky or, in the case of night observations, could be seen and recognized if the general illumination were raised to the normal daylight level.

*Luminous range of a light*—the greatest distance at which a light can be seen merely as a function of its luminous intensity, the meteorological visibility, and the sensitivity of the observer's eyes.

*Nominal range of the light*—the luminous range of a light in a homogeneous atmosphere in which the meteorological visibility is 10 nautical miles.

*Geographical range of a light*—the greatest distance at which a light can be seen as a function of the curvature of the earth, the height of the light source and the height of the observer.

The visibility of a light is usually the distance that it can be seen in clear weather and is expressed in nautical miles. Visibilities listed are values received from foreign sources.

*Range lights*—two or more lights at different elevations, so situated to form a range (leading line) when brought into transit. The light nearest the observer is the *front light* and the one farthest from the observer is the *rear light*. The front light is normally at a lower elevation than the rear light.

*Directional lights*—lights illuminating a sector of very narrow angle and intended to mark a direction to be followed.

*Vertical lights*—Two or more lights disposed vertically or geometrically to form a triangle, square, or other figure. If the individual lights serve different purposes, those of lesser importance are called *Auxiliary lights*.

*Occasional lights*—lights exhibited only when specially needed:

(a) *Tidal light*—shown at the entrance of a harbor, to indicate tide and tidal current conditions within the harbor.

(b) *Fishing light*—for the use of fishermen and shown when required.

(c) *Private light*—maintained by a private authority for its own purposes. The mariner should exercise special caution when using a private light for general navigation.

*Seasonal lights*—usually shown only during the navigation season or for a lesser time period within that season.

*Articulated lights*—offshore aids to navigation consisting of a length of pipe attached directly to a sinker by means of a pivot or such other device employing the principle of the universal joint. The positional integrity is intermediary between that of a buoy and a fixed aid.

*Aeronautical lights*—lights of high intensity which may be the first lights observed at night from vessels approaching the coast. Those lights situated near the coast are listed in the List of Lights in order that the navigator may be able to obtain more information concerning their description.

These lights are not designed or maintained for marine navigation and they are subject to change without prompt notification.

These lights are indicated in this List by the designation AVIATION LIGHT and are placed in geographical sequence in the body of the text along with lights for surface navigation.

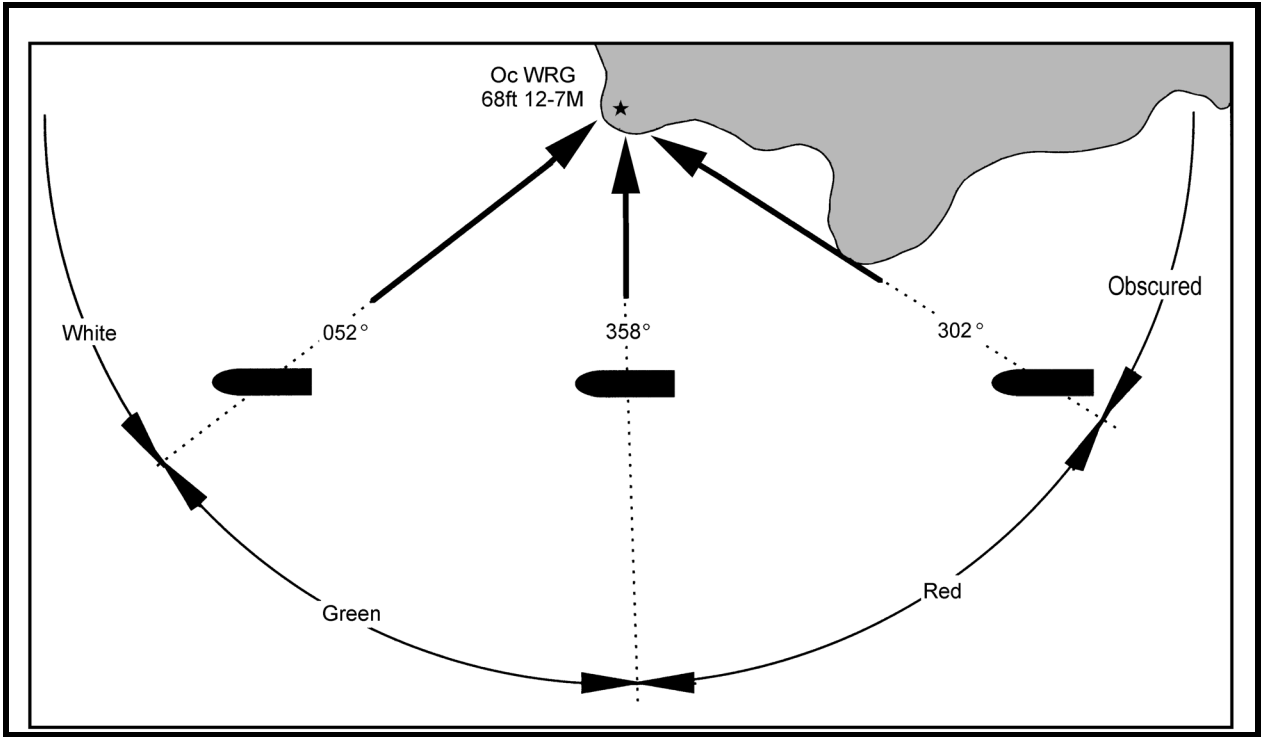
*Aeromarine lights*—marine-type lights for which part of the beam is deflected to an angle of 10 to 15 degrees above the horizon to facilitate use by aircraft.

*Sector limits and arcs of visibility*—these are arranged clockwise and are given from seaward toward the light. Thus, in the diagram, the sectors of the light are defined as: obscured from shore to 302°, red to 358°, green to 052°, white to shore. These are bearings of the light as seen from a vessel crossing the sector lines.

Under some conditions of the atmosphere, white lights may have a reddish hue. The mariner should not judge solely by color where there are sectors but should verify this position by taking a bearing of the light. On either side of the line of demarcation between white and red there is always a small sector of uncertain color, as the edges of a sector of visibility cannot be clearly defined.

When a light is obscured by adjoining land and the arc of visibility is given, the bearing on which the light disappears may vary with the distance from which it is observed. When the light is cut off by a sloping point of land or hill, the light may be seen over a wider arc by a ship farther off than by one closer.

*Bearings*—all bearings are true, measured clockwise from 000°, and given in degrees or degrees and minutes.



## LIGHTSHIPS, SUPERBUOYS, AND OFFSHORE LIGHT STATIONS

Courses should be set to pass all floating aids to navigation with sufficient clearance to avoid the possibility of collision from any cause. Experience shows that floating aids to navigation cannot be safely used as leading marks to be passed close aboard, but should always be left broad off the course, whenever searoom permits.

When approaching a lightship, superbuoy, or a station on a submarine site on radio bearings, the risk of collision will be avoided by insuring that the radio bearing does not remain constant.

Most lightships and large buoys are anchored with a very long scope of chain and, as a result, the radius of their swinging circle is considerable. The charted position is the location of the anchor. Furthermore, under certain conditions of wind and current, they are subject to sudden and unexpected sheers which are certain to hazard a vessel attempting to pass close aboard.

During extremely heavy weather and due to their exposed locations, lightships may be carried off station. The mariner should, therefore, not implicitly rely on a lightship maintaining its precisely charted position during and immediately following severe storms. A lightship known to be off station will secure her light, fog signal, and radiobeacon and fly the International Code signal "LO" signifying "I am not in my correct position."

The following regulations have been established respecting the several lightships on the coasts of the *British Isles*:

A white riding light is exhibited from the forestay of each lightship, at a height of 6 feet (1.8 meters) above the rail, for the purpose of showing in which direction the vessel is riding when at her station.

If from any cause a lightship is unable to exhibit her usual characteristic lights while on station, the riding light only will be shown.

During fog or low visibility, on the near approach of traffic to a lightship the bell will be rung rapidly during the silent intervals between each sounding of the vessel's prescribed station fog signal until all risk of collision is past.

At lightships where a hand horn is used, the interval will be shortened as vessels approach and, should a vessel come dangerously close, the sound will be continuous until she has passed.

When a lightship is out of position having been driven from her proper station or under tow, and is no use as a guide to shipping, the characteristic light will not be shown and the fog signal will not be sounded.

The following signals will be made:

By day—two large black balls will be shown, one forward and one aft, and the International Code signal "LO" indicating "I am not in my correct position" will be hoisted where it may best be seen.

By night—a fixed red light will be shown at bow and

stern of the vessel and red and white flares will be shown simultaneously every 15 minutes or at more frequent intervals on the near approach of traffic; the flares will be shown from where they can best be seen at a distance of about 10 feet (3 meters) apart in a horizontal line. If the use of flares is impracticable, a red light and a white light will be displayed simultaneously for about a minute.

Lightship under tow by day—the International Code signal "LO" indicating "I am not in my correct position" will be hoisted where it can best be seen. In accordance with Rule 24 of the International Regulations for Preventing Collisions at Sea 1972, a diamond shape will be displayed where it can best be seen.

Lightship under tow at night—sidelights and a sternlight will be exhibited in accordance with Rule 24 of the International Regulations for Preventing Collisions at Sea 1972.

In fog or low visibility, lightships out of position will give the fog signal required for a vessel at anchor.

It should be remembered that lightships, through collisions or other causes, are liable to be withdrawn for repairs without notice, and in some cases may not be replaced by relief vessels.

The name of the station is painted on the sides of the vessel or float, but relief vessels may carry the word "Relief" or "Reserve." A lightship under way shows the same lights and makes the same sound signals as other vessels under way.

Some lightships have been replaced by superbuoys.

Oil and gas permanent platforms and drilling rigs are marked by:

Mo(U) 15s 15M

Horn Mo(U) 30s

Mo(U)R 15s 3M may mark projections.

They may be encountered anywhere in the waters covered by this volume.

*Belgian, Dutch, German, and Danish* lightships carry a white light on the forestay.

*French* lightships, when out of position, discontinue their characteristic lights and fog signals and exhibit in their place the following signals:

By day—the International Code signal "LO" and two black balls, one forward and one aft.

By night—two red lights, one forward and one aft. Also two flare-ups, one white and one red, will be burned simultaneously every 15 minutes.

*Dutch and Belgian* lightships, when out of position, discontinue their characteristic lights and fog signals.

By day—the distinguishing mastheads marks are struck, two black balls are shown, one forward and one aft, and the International Code signal "LO" is hoisted.

By night—two red lights, one forward and one aft, are shown; also one red and one white flare simultaneously or

one red and one white light every 15 minutes.

*German* lightships, when out of position, by day hoist the International Code signal "LO", two red flags, one forward and one aft, and the distinguishing masthead mark is lowered; by night two red lights are shown, one forward and one aft; in addition, at intervals of less than 15 minutes, one white and one red light are displayed horizontally 9 feet (3 meters) apart from the deck for a period of one minute. In fog only the bell fog signals prescribed in the navigation regulations are sounded. If a vessel is seen standing in danger a gun will be fired (groups of 2 reports at intervals of 3 minutes), the bell will be rung and signals made accordance with the International Code of Signals. Lightships are liable to be driven from their stations by ice, but are replaced as soon as circumstances allow.

*Danish* lightships-lights are shown from 15 minutes after sunset to 15 minutes before sunrise. When out of position, they discontinue their characteristic lights and fog signals. If they have drifted out of position, they will exhibit the following signals:

By day-two black balls, one forward and one aft. The International Code Signal "LO" will be hoisted;

By night-two red lights will be shown, one forward and one aft; also, one red and one white light will be shown simultaneously over the gunwale at least every 15 minutes.

A lightship under way shows the same signals as other vessels under way, and if proceeding under its own power, hoists two black balls, one forward and one aft.

It should be remembered that lightships are liable to be withdrawn without notice, and may not be replaced by relief vessels. Should the mechanical fog signals be disabled, a hand fog horn is used.

Should a vessel be seen standing into danger the Morse letter U(••-) will be made by siren or flashing light, and the International Code flag "U" hoisted. When lightships can furnish pilots they display at the masthead a flag, upper half white, lower half red. By night they answer pilot signals by burning a flare.

Many radiobeacons within the European maritime area transmit only a carrier signal keyed to provide a Morse call-sign for identification of the station. The composition of signals is based on a one-minute duration. These radiobeacons operate individually and continuously instead of within a group (sequence) of beacons.

## **DISTRESS SIGNALS**

For lightships and lighthouses on islands or isolated rocks and offshore light structures in the British Isles:

(1) Light stations in the above categories are equipped with radiotelephones capable of transmitting messages to summon assistance for themselves or for vessels or aircraft they observe to be in distress, in accordance with recognized procedures. In addition to transmitting such mes-

sages, they may make use of one or more of the visual distress signals indicated in paragraph (2). Light stations which are themselves in need of assistance will in any event make use of one or more of the visual distress signals in addition to the radiotelephone message.

(2) Visual Distress Signals:

(a) a rocket or rockets throwing red stars. Each rocket preceded or accompanied by either a detonating signal or sound rocket-the whole signal repeated at regular intervals;

(b) a signal consisting of a square flag having above or below it a ball;

(c) the International Code Signal of distress ("NC" or "DZ").

NOTE-a detonating signal has the following characteristics:

By night-on firing, a small yellowish-white flash and a small sharp report; on reaching zenith of trajectory (about 300 feet), a very large yellowish-white flash with a loud cracking report.

By day-as for night, but in addition a small puff of whitish smoke on firing and, on reaching zenith of trajectory, a large compact cloud of whitish smoke.

Reply from shore:

By day-orange smoke signal.

By night-white star rocket.

(3) Certain light stations under the jurisdiction of the Northern Lighthouse Board, which covers Scotland and the Isle of Man, have, in addition to radiotelephones, white star rockets to acknowledge a ship's distress signal and to indicate that assistance has been summoned.

## **DANGER SIGNALS**

When from any lightship (and certain lighthouses) a vessel is seen standing into danger, the flag signal "NF" of the International Code, "You are running into danger," or signal flag "U", "You are standing into danger," will be hoisted and kept flying until answered. In addition to the above flag signal, the lightship or lighthouse may fire a rocket sound signal, or a detonating signal, and repeat it at short intervals until observed by the vessel. The letter "U" in Morse flashed by lamp or sounded on a horn may also be used.

In the case of lightships the signal "PS", "You should not come any closer," may be used when a vessel is observed to be coming dangerously close.

Call Signals (not Distress)-Lightships and certain lighthouses wishing to attract the attention of a passing vessel will:

By day-hoist the appropriate International Code signal.

By night-make the call sign or letter "K" by signal light.







In the case of a lightship, white flare may also be exhibited. In fog or low visibility, when the signal cannot be used, the letter "K" may be made by hand horn.

*French* lights may be shown by day in poor visibility.  
The heights of structures are measured from the focal

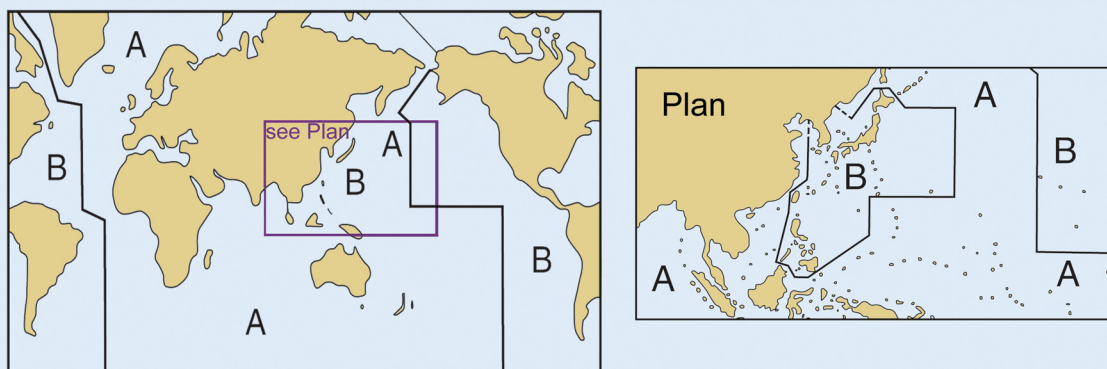
plane of the light on the ground.

# IALA Maritime Buoyage System

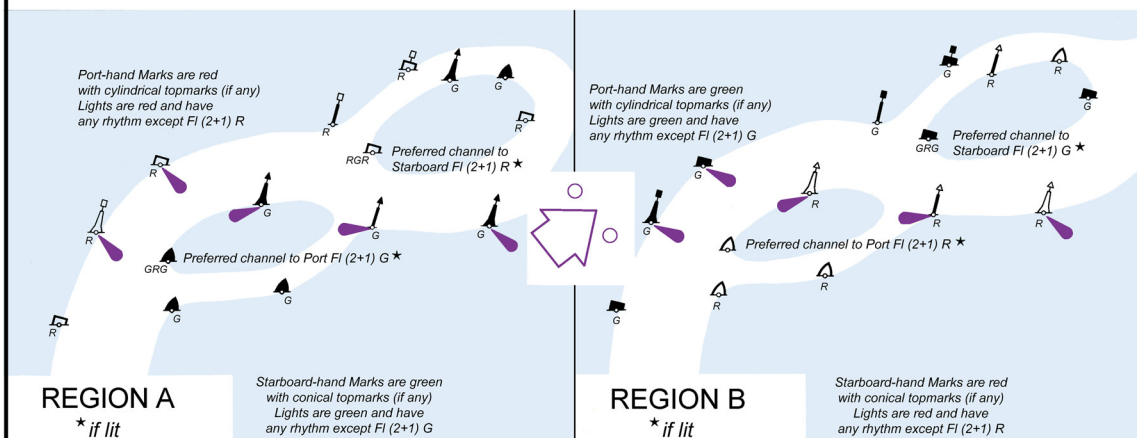
## International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA)


Where in force, the IALA System applies to all fixed and floating marks except landfall lights, leading lights and marks, sectored lights and major floating lights. The standard buoy shapes are cylindrical (can) , conical , spherical , pillar , and spar , but variations may occur, for example: minor light floats . In the illustrations below, only the standard buoy shapes are used. In the case of fixed beacons (lit or unlit) only the shape of the topmark is of navigational significance.

## IALA Buoyage Regions A and B



Lateral marks are generally for well-defined channels and are defined by their IALA Buoyage Region. The direction of buoyage is that taken when approaching a harbor from seaward. Along coasts, the direction is determined by buoyage authorities, normally clockwise around land masses.



BEACONS with IALA System topmarks are charted by upright symbols. eg:  or, 

on smaller-scale charts:  Beacon towers are charted: 

LIGHTFLOATS: The IALA System is not usually applied to large lightfloats (replacing manned lightships) but may be applied to smaller lightfloats.

**Refer to Chart 1 for further detailed information on lights, beacons, and buoys.**

## FOG SIGNALS

The function of a fog signal in the system of aids to navigation is to warn of danger and to provide the mariner with an audible means of approximating his position relative to the fog signal when the station, or any visual signal which it displays, is obscured from view by atmospheric conditions.

Fog signals depend upon the transmission of sound through air. As aids to navigation, they have certain inherent defects that should be considered. Sound travels through the air in a variable and frequently unpredictable manner.

It has been established that:

fog signals are heard at greatly varying distances and that the distance at which a fog signal can be heard may vary with the bearing of the signal and may be different on different occasions;

under certain conditions of atmosphere, when a fog signal has a combination of high and low tones, it is not unusual for one of the tones to be inaudible. In the case of sirens, which produce a varying tone, portions of the blast may not be heard;

there are occasionally areas close to the signal in which it is wholly inaudible. This is particularly true when the fog signal is screened by intervening land or other obstructions;

fog may exist a short distance from a station and not be observable from it, so that the signal may not be in operation;

even though a fog signal may not be heard from the deck or bridge of a ship when the engines are in motion, it may be heard when the ship is stopped, or from a quiet position. Sometimes it may be heard from aloft though not on deck;

the intensity of the sound emitted by a fog signal may be greater at a distance than in immediate proximity.

All these considerations point to the necessity for the utmost caution when navigating near land in fog. Particular attention should be given to placing lookouts in positions in which the noises in the ship are least likely to interfere with hearing a fog signal. Fog signals are valuable as warnings, but the mariner should not place implicit reliance upon them in navigating his vessel. They should be considered solely as warning devices.

Among the devices in common use as fog signals are:

Radiobeacons which broadcast simple dot-and-dash combinations by means of a transmitter emitting modulated continuous waves;

Diaphones which produce sound by means of a slotted reciprocating piston actuated by compressed air. Blasts

may consist of two tones of different pitch, in which case the first part of the blast is high and the last of a low pitch. These alternate pitch signals are called "two-tone;"

Diaphragm horns which produce sound by means of a diaphragm vibrated by compressed air, steam, or electricity. Duplex or triplex horn units of differing pitch produce a chime signal;

Nautophones, electrically operated instruments, each comprising a vibrating diaphragm, fitted with a horn, which emits a high note similar in power and tone to that of the reed;

Reed horns which produce sound by means of a steel reed vibrator by compressed air;

Sirens which produce sound by means of either a disk or a cup-shaped rotor actuated by compressed air or electricity;

Whistles which produce sound by compressed air emitted through a circumferential slot into a cylindrical bell chamber;

Bells which are sounded by means of a hammer actuated by hand, wave motion, by a descending weight, compressed gas, or electricity;

Guns and explosive signals which are produced by firing of explosive charges, the former being discharged from a gun, and the latter being exploded in midair;

Fog Detector Lights—certain light stations, in addition to the main light, are equipped with fog detector lights for automatic detection of fog. These lights sweep back and forth through an area over which the fog watch is necessary, showing a powerful bluish-white flash of about 1 second in duration. The interval between successive flashes will vary with the position of the vessel within the sector. At the limits of the sector the duration of the flash may be considerably longer than 1 second.

Fog detector lights operate continuously.

Standby fog signals are sounded at some of the light and fog signal stations when the main fog signal is inoperative. Some of these standby fog signals are of a different type and characteristic than the main fog signal.

Radiobeacons, RACONS, RAMARKs, and radio direction-finders are mentioned in the List of Lights, but for detailed information, including the synchronization of radio signals and sound signals for distance finding, the navigator should consult Pub. 117, Radio Navigational Aids.

Note—use Chart No. 1 for the complete list of symbols and abbreviations commonly used in presenting the essential characteristics of lights, fog signals, and radio aids found on charts.

## VISIBILITY TABLE

*Table of distances at which objects can be seen at sea according to their respective elevations and the elevation of the eye of the observer.*

Height in Feet	Distance in geographic or nautical miles	Height in feet	Distance in geographic or nautical miles	Height in feet	Distance in geographic or nautical miles	Height in feet	Distance in geographic or nautical miles	Height in feet	Distance in geographic or nautical miles	Height in feet	Distance in geographic or nautical miles
1	1.2	23	5.6	45	7.8	135	13.6	340	21.6	600	28.7
2	1.7	24	5.7	46	7.9	140	13.8	350	21.9	620	29.1
3	2.0	25	5.9	47	8.0	145	14.1	360	22.2	640	29.5
4	2.3	26	6.0	48	8.1	150	14.3	370	22.5	660	30.1
5	2.6	27	6.1	49	8.2	160	14.8	380	22.8	680	30.5
6	2.9	28	6.2	50	8.3	170	15.3	390	23.1	700	31.0
7	3.1	29	6.3	55	8.7	180	15.7	400	23.4	720	31.4
8	3.3	30	6.4	60	9.1	190	16.1	410	23.7	740	31.8
9	3.5	31	6.5	65	9.4	200	16.5	420	24.0	760	32.3
10	3.7	32	6.6	70	9.8	210	17.0	430	24.3	780	32.7
11	3.9	33	6.7	75	10.1	220	17.4	440	24.5	800	33.1
12	4.1	34	6.8	80	10.5	230	17.7	450	24.8	820	33.5
13	4.2	35	6.9	85	10.8	240	18.1	460	25.1	840	33.9
14	4.4	36	7.0	90	11.1	250	18.5	470	25.4	860	34.3
15	4.5	37	7.1	95	11.4	260	18.9	480	25.6	880	34.7
16	4.7	38	7.2	100	11.7	270	19.2	490	25.9	900	35.1
17	4.8	39	7.3	105	12.0	280	19.6	500	26.2	920	35.5
18	5.0	40	7.4	110	12.3	290	19.9	520	26.7	940	35.9
19	5.1	41	7.5	115	12.5	300	20.3	540	27.2	960	36.3
20	5.2	42	7.6	120	12.8	310	20.6	560	27.7	980	36.6
21	5.4	43	7.7	125	13.1	320	20.9	580	28.2	1000	37.0
22	5.5	44	7.8	130	13.3	330	21.3				

**Explanation.**—The line of sight connecting the observer and a distant object is at maximum length tangent with the spherical surface of the sea. It is from this point of tangency that the tabular distances are calculated. The table must accordingly be entered twice to obtain the actual geographic visibility of the object—first with the height of the object, and second with the height of the observer’s eye—and the two figures so obtained must be added. Thus, if it is desired to find the maximum distance

at which a powerful light may be seen from the bridge of a vessel where the height of eye of the observer is 55 feet above the sea, from the table:

Nautical Miles	
55 feet height of observer (visible) . . . . .	8.7
200 feet height of light (visible) . . . . .	<u>16.5</u>
Distance visible . . . . .	25.2

## CONVERSION TABLE — FEET TO WHOLE METERS

(FOR HEIGHTS OF LIGHTS)

**1 foot = 0.3048 meter**

Feet	Meters	Feet	Meters	Feet	Meters	Feet	Meters	Feet	Meters	Feet	Meters
		40	12	80	24	120	37	160	49	200	61
1	0	41	12	81	25	121	37	161	49	300	91
2	1	42	13	82	25	122	37	162	49	400	122
3	1	43	13	83	25	123	37	163	50	500	152
4	1	44	13	84	26	124	38	164	50	600	183
5	2	45	14	85	26	125	38	165	50	700	213
6	2	46	14	86	26	126	38	166	51	800	244
7	2	47	14	87	27	127	39	167	51	900	274
8	2	48	15	88	27	128	39	168	51	1000	305
9	3	49	15	89	27	129	39	169	52		
10	3	50	15	90	27	130	40	170	52		
11	3	51	16	91	28	131	40	171	52		
12	4	52	16	92	28	132	40	172	52		
13	4	53	16	93	28	133	41	173	53		
14	4	54	16	94	29	134	41	174	53		
15	5	55	17	95	29	135	41	175	53		
16	5	56	17	96	29	136	41	176	54		
17	5	57	17	97	30	137	42	177	54		
18	5	58	18	98	30	138	42	178	54		
19	6	59	18	99	30	139	42	179	55		
20	6	60	18	100	30	140	43	180	55		
21	6	61	19	101	31	141	43	181	55		
22	7	62	19	102	31	142	43	182	55		
23	7	63	19	103	31	143	44	183	56		
24	7	64	20	104	32	144	44	184	56		
25	8	65	20	105	32	145	44	185	56		
26	8	66	20	106	32	146	45	186	57		
27	8	67	20	107	33	147	45	187	57		
28	9	68	21	108	33	148	45	188	57		
29	9	69	21	109	33	149	45	189	58		
30	9	70	21	110	34	150	46	190	58		
31	9	71	22	111	34	151	46	191	58		
32	10	72	22	112	34	152	46	192	59		
33	10	73	22	113	34	153	47	193	59		
34	10	74	23	114	35	154	47	194	59		
35	11	75	23	115	35	155	47	195	59		
36	11	76	23	116	35	156	48	196	60		
37	11	77	23	117	36	157	48	197	60		
38	12	78	24	118	36	158	48	198	60		
39	12	79	24	119	36	159	48	199	61		

## RADIOBEACONS

### RADIO DIRECTION-FINDER SETS ON SHIPS

Radio direction-finder sets on board ship enable bearings to be taken of transmissions from other ships, aircraft, shore stations, marine radiobeacons, and the coastal stations of the radio communication network. When located in the pilothouse or on the navigating bridge, the direction-finder enables the navigating officer to obtain bearings himself without reference to others and without delay.

Due to the great value of radio bearings, particularly when visibility is poor and when celestial observations cannot be obtained, the radio direction-finder on board ship deserves the same consideration and care as are given to the sextant and compass. It has the following characteristics in common with the two latter navigational instruments: the readings are subject to certain errors; these errors may be reduced by skillful and intelligent operation; the dangers of using erroneous readings may be greatly reduced by the intelligence and good judgment of the mariner. In order to acquire experienced judgment in the operation of the instrument, it is essential that the mariner use it as much as practicable.

Troubles from interference and weak signals are greatly reduced by the use of direction-finders of proper selectivity. The bearings must be corrected for radio deviation as shown by the calibration curve of the set.

#### Types of Radiobeacons

1. Directional radiobeacons which transmit radio waves in beams along fixed bearings.

2. Rotating radiobeacons by which a beam of radio waves is resolved in azimuth in a manner similar to the beam of light sent out by rotating lights.

3. Circular radiobeacons which send out waves of approximately uniform strength in all directions so that ships may take radio bearings of them by means of the ship's radio direction-finder sets. This is the most common type of radiobeacon.

To extend the usefulness of marine radiobeacons to ships and aircraft employing automatic radio direction finders, U.S. marine radiobeacons on the Atlantic and Pacific Coasts and Great Lakes have been modified to transmit a continuous carrier signal during the entire radiobeacon operating period with keyed modulation providing the characteristic signal. Unless a beat frequency oscillator is installed, the continuous carrier signals are not audible to the operator of an aural null direction finder. A ten second dash has been included in the characteristic of these radiobeacons, to enable the navigator using a conventional aural null direction finder to refine his bearing. Vessels with direction finders will be able to use the

United States radiobeacons located on the Atlantic and Pacific Coasts, and Great Lakes at any time in their assigned sequence.

#### Aeronautical Radio Aids

Aeronautical radiobeacons and radio ranges are often used by navigators of marine craft in the same manner as marine radiobeacons are used for determining lines of positions. They are particularly useful along coasts where marine broadcast coverage is inadequate. Aeronautical aids situated inland become less trustworthy, so far as ships are concerned, when high land intervenes between them and the coast. They are established to be of primary usefulness to aircraft, and surface craft should use these aids with caution. Only those aeronautical radiobeacons considered to be of use to the mariner have been selected for inclusion in this publication.

AERONAUTICAL RADIOBEACONS. Like marine radiobeacons, these aids broadcast a characteristic signal on a fixed frequency.

NOTE: The assigned frequency of aeronautical radiobeacons is normally from 200 to 415 kHz while the frequency of marine radiobeacons is normally from 285 to 325 kHz. Aeronautical radiobeacons not within the marine radiobeacon band will not normally be listed in this publication.

The range signals are interrupted at intervals to permit broadcast of the identification signal. In aviation publications the range leg bearings are most often given as magnetic bearings toward the station; in this publication they are given as true bearings toward the station. Unless otherwise stated in the station details, aeronautical radio aids mentioned in this publication transmit continuously.

NOTE: Mariners are advised that changes to and deficiencies in aeronautical radio facilities are not always immediately available to maritime interests and the positions are approximate and listed to the nearest minute only.

#### Obligations of Administrations Operating Radiobeacons

The obligations of nations and other administrations operating radiobeacons are given in Article 43 of the Radio Regulations of the International Telecommunication Union, Geneva.

#### Accuracy of Bearings Taken Aboard Ship

No exact rules can be given as to the accuracy to be expected in radio bearings taken by a ship as the accuracy depends to a large extent upon the skill of the ship's opera-

tor, the condition of the ship's equipment, and the accuracy of the ship's calibration curve. Mariners are urged to obtain this information by taking frequent radio bearings when their ship's position is accurately known and by recording the results. Normally, United States radiobeacons are operated in a group of six, each station in a group using the same frequency and transmitting for one minute in its proper sequence, and operate during all periods, either sequenced or continuously, regardless of weather conditions.

**SKILL OF OPERATOR:** Skill in the operation of the radio direction-finder can be obtained only by practice and by observing the technical instructions for the set in question. For these reasons the operator should carefully study the instructions issued with the set and should practice taking bearings frequently.

**OPERATOR'S ERROR:** As the operator obtains bearings by revolving the direction-finder coil until the signal disappears or becomes a minimum, the operator can tell by the size of the arc of silence or of minimum strength approximately how accurately the bearing has been taken. For instance, if the minimum is broad and the residual signal covers about 10° with equal strength, it is doubtful if the bearing can be accurately estimated. On the other hand, if a sharp minimum can be obtained, the operator can determine the bearing to within a half of a degree.

In this connection it should be noted that a properly operating and correctly adjusted direction-finder should in no case produce other than a point or arc of absolute silence. That is, there should be no "residual" signal at the point or arc of observation. The sharpness and completeness of the arc of silence are the best indications of a properly operating direction-finder, and their absence is the best indication of the presence of "night effect."

**SUNRISE, SUNSET, OR NIGHT EFFECT:** Bearings obtained from about half an hour before sunset to about half an hour after sunrise may be subject to errors due to night effect. On some nights this effect is more pronounced than on others and effect is usually greatest during the hours of twilight. Night effect may be detected by a broadening of the arc of minimum signals and by a fluctuation in the strength of the signals. It may also be indicated by difficulty in obtaining a minimum or by a rapidly shifting minimum. It is sometimes accompanied by an actual shift in the direction of the bearings. If it is essential to obtain a bearing when the night effect is pronounced, several bearings should be taken over a short period of time and an average taken of them.

**RADIO DIRECTION FINDER WITHOUT GYRO REPEATERS:** The ship's compass must be read as the bearing is taken or an error may be introduced equal to the amount that the ship has yawed in the interval between taking the bearing and reading the compass. Any error in the ship's compass must be applied to the bearing.

**RECIPROCAL BEARINGS:** In some direction-finder sets, the operator cannot tell from which side of the ship the signals are coming. With these sets the operator shall correct both bearings for their respective deviations and give both corrected bearings to the person who is plotting the bearings on the chart. If the mariner is in doubt as to the side of the ship from which the bearings are coming, this difficulty can usually be solved by having another bearing taken after the ship has steamed a short distance and noting in which direction the bearing is changing.

**CALIBRATION:** It is essential that the radio direction-finder be accurately calibrated in order that the bearings may be corrected for deviation. While the bearings are being taken, other radio antennas on board must be in the same condition as they were when the calibration was made; movable parts of the ship's superstructure such as booms, davits, wire rigging, etc., must be secured in the positions which they occupied when the direction-finder was calibrated. Unusual cargoes such as large quantities of metals and extraordinary conditions of loading may cause errors.

The direction-finder should be recalibrated after any changes have been made in the set or its surroundings (this includes alterations to or changes in position of antennas, wire rigging, boat davits, booms, etc.) whenever there is reason to believe that the previous calibration has become inaccurate, and also at periodic intervals.

The calibration must be made on approximately the same frequency or frequencies as will be used to take bearings because the deviation for several frequencies is not likely to be the same. It is believed that one calibration curve is satisfactory for the normal radiobeacon frequency (285 to 325 kHz), but the instructions issued by the manufacturer of the particular direction-finder in question should be studied in this connection.

To facilitate the calibration of ship's direction-finders, special arrangements have been made by some services for operation of their radiobeacons at times other than their published schedules. Information as to the arrangements made by the United States stations in this respect is as follows:

Sequenced radiobeacons cannot broadcast at any time other than on their assigned operating minute for the purpose of enabling vessels to calibrate their radio direction finders without causing interference. Special radio direction finder calibration transmitters of short range are operated at certain localities to provide continuous calibration service.

The position given for the antenna is the point from which the radiobeacon signal is emitted.

If it is not practicable to determine the time of calibration sufficiently in advance to contact the district commander, request may be made directly to the stations by means of telephone, telegraph, or a whistle signal consisting of three long blasts; followed by three short blasts.

This whistle signal is to be repeated until it is acknowledged by the station through the starting of the transmitter. The same group of signals should be sounded at the termination of calibration.

The work of the station personnel is not confined to standing watch and there may be times when the whistle request for calibration is not immediately heard, due to the noise from operating station machinery, etc. Usually, a repeated signal not too far from the station will attract attention.

**“COMPENSATED” RADIO DIRECTION-FINDERS:** Many radio direction-finders are “compensated” and no calibration chart or curve is used. Attention is invited to the fact that such compensation is just as vulnerable as the calibration data due to changes made in the set or its surroundings.

**CHECK THE CALIBRATION:** The calibration of compensation should be checked frequently by taking bearings when the ship’s position is accurately known and the results should be recorded for future reference.

**CALIBRATION RADIOBEACONS:** In the United States and certain other areas special radiobeacons, primarily for calibrating shipboard direction-finders are in operation. These radiobeacons transmit either continuously during scheduled hours or upon request, as indicated in station details.

**COASTAL REFRACTION (OR LAND EFFECT):** Errors may occur in bearings taken by ships so located that the line of observation to the radiobeacon passes over land or along the shore line. However, many observations seem to indicate that such errors are negligible when the observing vessel is well out from the shore. Bearings secured entirely over water areas are to be preferred since “land effect” is thus eliminated. Bearings taken at sunset and sunrise are likely to be erratic, and observations taken at these hours should therefore be repeated and checked as may be feasible.

**PROGRAM BROADCASTING STATIONS:** Before taking bearings on a station broadcasting entertainment programs a mariner should consider that frequency may differ widely from the frequency for which the set is calibrated, that the published location of the station may be that of its studio and not that of its transmitting antenna, that if the station is synchronized with other stations it may be impossible to tell on which station the bearing was taken, and that as the majority of these stations are inland, the coastal refraction may be excessive.

### **Station Details**

**FREQUENCY:** The frequency listed is that used by the station in transmitting its “Characteristic Signal.” Calling frequencies, if any, will be given under “remarks.”

**RANGE:** In this book the range of radiobeacons is only approximate and is given merely to assist mariners in

planning their voyages and to inform them of several radiobeacons they will probably hear first. Frequently, when conditions for radio reception are good, radiobeacons may be heard at greater distances than indicated. The mariner who is at a greater distance than the range indicated should attempt to obtain bearings when necessary, and not assume that the radiobeacon will be unheard beyond its indicated range.

**GROUP SEQUENCE:** Selected radiobeacons are grouped together on the same operating frequency and are assigned a specific sequence of transmission within this group. This reduces station interference and unnecessary returning.

**ANTENNA LEAD-IN:** Included in the details of many radiobeacons located at or near light stations is a statement of the distance and bearing of the radiobeacon transmitting antenna from the light tower. Use should be made of this information when calibrating the ship’s direction-finding equipment by means of simultaneous visual and radio bearings.

### **Plotting Radio Bearings**

The procedure for converting radio (great circle) bearings as received by direction-finder equipment aboard ship is identical with that used in converting radio bearings supplied by direction-finder stations on shore and is described in section 100E “Plotting Radio Bearings” of Pub. 117, Radio Navigational Aids.

### **Synchronization for Distance Finding**

At some radiobeacon stations, sound signals, either submarine or air or both, are synchronized with the radiobeacon signals for distance finding. Ordinarily, the sound signals do not operate during the transmission period of the radio signal in clear weather. The methods in use employ, as a rule, distinctive signals to indicate the point of synchronization, and make use, for determining distance, of the lag of signals traveling through air or water as compared to the practically instantaneous travel of the radio signals.

In the case of some sound signals, a series of short radio dashes is transmitted at intervals following the synchronizing point, so that by counting the number of such short dashes heard after the distinctive radio signal and before hearing the corresponding distinctive sound signal, the observer obtains the distance, in miles equal to the number of dashes counted, from the sound signal apparatus unless stated otherwise.

In the case of other signals, the observer notes the number of seconds intervening between the reception of the distinctive radio signal and the corresponding sound signal and uses a factor to determine distances in miles as follows:

Submarine signals—multiply the observed numbers of seconds by 0.8 or divide by 1.25 distance in nautical miles.

Air signals—multiply the observed number of seconds by 0.18 or divide by 5.5. For more approximate results or for statute miles, multiply the observed number of seconds by 0.2 or divide by 5.

*Tables for finding distance*

Interval in seconds	Distances in nautical miles from sound signal source	
	Air	Submarine
1	0.18	0.8
2	0.36	1.6
3	0.54	2.4
4	0.72	3.2
5	0.90	4.0
6	1.08	4.8
7	1.26	5.6
8	1.44	6.4
9	1.62	7.2
10	1.80	8.0
20	3.60	16.0
30	5.40	24.0
40	7.20	
50	9.00	
60	10.80	

REMARKS: Average speed of sound travel in water is 1 nautical mile in 11/4 seconds.

The speed of sound travel is influenced by a number of conditions making it impracticable to state a factor that will give exact results under all conditions. The results obtained by the methods described may be accepted as being accurate to within 10 percent of the distance.

Methods of synchronizing the signals vary and are described or illustrated in official announcements regarding them. It is essential to note carefully the point of synchronization used so that no error will be made through taking time on the wrong signal or the wrong part of it.

In observing air signals it is usually sufficient to use a watch with second hand, although a stop watch is helpful. For submarine signals where the interval is shorter and a time error correspondingly more important, it is essential that a stop watch or other timing device be used. Where the radiobeacon and submarine signals are not received at the same point on the vessel, means of instant communication between two observers should be available or synchronized stop watches provided for each.

Ships not equipped with a DF receiver can take advantage of the distance-finding feature of a radiobeacon station, if equipped with a radio receiver capable of receiving

the transmission. In the case of obtaining distance from a radiobeacon station which is synchronized with a submarine sound signal, the ship must also be equipped with a device for picking up submarine sound signals.

### Rotating Loop Radiobeacon

#### MODE OF OPERATION:

(1) The radiobeacon consists of a rotating loop transmitter having directional properties by which an observer in a ship can obtain his bearing from the beacon without the use of a direction-finder. Any ordinary receiving set capable of being tuned to the radiobeacon's frequency may be used. The only other equipment required is a reliable stop watch or chronograph with a sweep second hand. Stop watches and clocks with dials graduated in degrees may be used, from which bearings may be read directly without any mathematical calculation.

(2) During each revolution of the beacon, the signals received by the observer will rise and fall in intensity, passing through a maximum and a minimum twice each minute. The positions of minimum intensity, which occur at intervals of thirty seconds from one another, are very sharp and can be accurately observed. These are, therefore, used for navigation purposes.

The beacon may be regarded as having a line or beam of minimum intensity which rotates at a uniform speed of 360° in 1 minute (i.e. 6° in 1 second) based on the true meridian as starting point. Therefore, if the observer can (a) identify the beacon and (b) measure the number of seconds which this minimum beam takes to reach their position starting from the true meridian, this number multiplied by six will give their true bearing from the beacon or its reciprocal.

The signals which enable the beacon to be identified and the bearing to be calculated are described in the following paragraphs:

Signals transmitted by the beacon: Each transmission from the beacon lasts for 4 minutes; the beacon is then silent for 8 minutes, and automatically starts again at the end of the silent period. Each transmission consists of two parts: (a) the identification signal of the station set at a slow speed for the first minute, commencing when the minimum beam is true east and west and followed by a long dash of about 12 seconds duration; (b) the signal group commencing when the minimum beam is approaching the true meridian, and consisting of (i) the north starting signal, which is the letter V followed by two dots (•• — ••); (ii) a long dash of about 12 seconds duration; (iii) the east starting signal, which is the letter B followed by two dots (— •• ••); and (iv) a long dash for about 42 seconds.

The navigation signals are repeated during the remainder of the transmission and signals cease when the minimum beam is in the east and west position.

## INSTRUCTIONS FOR TAKING BEARINGS

- (i) Set stop watch to zero.
- (ii) Listen for identification signal.
- (iii) When the first long dash begins (at A on diagram) get ready for the "north signal."
- (iv) After the "north signal," start stop watch exactly at beginning of long dash (see "00 seconds" on diagram) counting one-two with the two preceding dots, and 3 for the start of the stop watch.
- (v) Listen for minimum and note its exact time by stop watch.

NOTE: If stop watch is graduated in degrees note exact angle, which is the bearing.

- (vi) Multiply number of seconds by  $6^\circ$  for bearing.
- (vii) Determine whether bearing is direct or reciprocal.
- (viii) If the "north signal" is faint, use the "east signal," but add  $090^\circ$  to final bearing.

Particular attention is directed to the following:

- (a) The stop watch must be started exactly at the beginning of the long dash for each series of observations.
- (b) The time of occurrence of the minimum must be read to the nearest fifth of a second.
- (c) The bearing obtained will be either the direct bearing or its reciprocal.
- (d) When using the east signal, add  $090^\circ$  to obtain bearings from true north.
- (e) The beacon is set up on the true meridian, and no correction is required for magnetic variation.
- (f) No quadrantal error arises, and no corrections are necessary except as in (c) and (d) above.

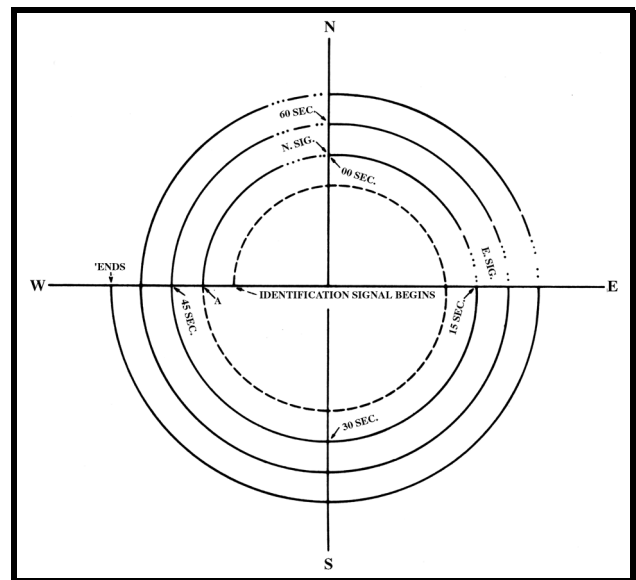
(A correction must, of course, be made for convergency; this should be applied as if the beacon were a shore radio direction-finder station.)

(g) A comparatively large error of bearing may occur due to inaccuracy in the stop watch, and to obviate this,

observers or navigators should check their stop watches on the beacon station before taking bearings. This can easily be done by checking the time by stop watch of the complete revolution of the beacon transmission. Any error found can then be allowed for.

### Caution

Due to the many factors which enter into the transmission and reception of radio signals, a mariner cannot practically estimate its distance from a radiobeacon either by the strength of the signals received or by the time at which the signals were first heard. Mariners should give this fact careful consideration in approaching radiobeacons. A diagram showing the signals used is given below.



ROTATING RADIOBEACON  
SIGNAL DIAGRAM

## DESCRIPTION

(Radiobeacons)

Information is tabulated in eight columns as follows:

**Column 1:** The number assigned to each radiobeacon by this Agency.

**Column 2:** Name and/or descriptive location of the radiobeacon.

**Column 3:** Approximate latitude and longitude of the radiobeacon to the nearest tenth of a minute.

**Column 4:** Radiobeacon characteristics. Included in this column are the Morse code, period in seconds, length of transmission and silence time.

**Column 5:** Range (approximate) in nautical miles.

**Column 6:** Group sequence. Selected radiobeacons are grouped together on the same operating frequency and are assigned a specific sequence of transmission within this group. This reduces station interference and unnecessary return.

**Column 7:** Frequency (given in kilohertz) and amplitude modulation (see Table Symbols).

**Column 8:** Remarks. Transmission synchronization, type of radiobeacon (marine, aero, etc.), calibration, antenna lead-in, calling frequencies, distance-finding information, service charges, hours of transmission, directional signals and other pertinent information.

## ABBREVIATIONS

aero ..... aeronautical  
tr ..... transmission  
si ..... silence  
s ..... seconds  
(4) ..... 4 times  
Transmission is continuous unless otherwise stated.

## TABLE OF SYMBOLS

### LEGEND

- (1) Type of modulation of the main carrier.
- (2) Nature of signal(s) modulating the main carrier.
- (3) Type of “information” to be transmitted. “Information” does not include information of a constant, unvarying nature such as provided by standard frequency emissions, continuous wave and pulse radars, etc.

### AMPLITUDE MODULATION:

#### N0N

- (1) Emission of an unmodulated carrier.
- (2) No modulating signal.
- (3) No information transmitted.

#### A1A

- (1) Double-sideband.
- (2) Single channel containing quantized or digital information without the use of a modulating subcarrier.
- (3) Telegraphy (for aural reception).

#### A2A

- (1) Double-sideband.
- (2) Single channel containing quantized or digital information with the use of a modulating subcarrier.
- (3) Telegraphy (for aural reception).

#### A3E

- (1) Double-sideband.
- (2) Single channel containing analog information.
- (3) Telephony (including sound broadcasting).

#### R3E

- (1) Single-sideband (reduced or variable level carrier).
- (2) Single channel containing analog information.
- (3) Telephony (including sound broadcasting).

#### B8E

- (1) Independent sidebands.
- (2) Two or more channels containing analog information.
- (3) Telephony (including sound broadcasting).

#### H2A

- (1) Single-sideband (full carrier).
- (2) Single channel containing quantized or digital information with the use of a modulating subcarrier.
- (3) Telegraphy (for aural reception).

**H3E**

- (1) Single-sideband (full carrier).
- (2) Single channel containing analog information.
- (3) Telephony (including sound broadcasting).

**J3E**

- (1) Single-sideband (suppressed carrier).
- (2) Single channel containing analog information.
- (3) Telephony (including sound broadcasting).

**A3C**

- (1) Double-sideband.
- (2) Single channel containing analog information.
- (3) Facsimile.

**A3F**

- (1) Double-sideband.
- (2) Single channel containing analog information.
- (3) Television (video).

**B7D**

- (1) Independent sidebands.
- (2) Two or more channels containing quantized or digital information.
- (3) Data transmissions, telemetry, telecommand.

Note: With 6 kHz. EDW operation in the bands below 30 MHz allocated exclusively for Maritime Mobile Service (FC, MO).

**FREQUENCY (OR PHASE) MODULATION:****F1B**

- (1) Frequency modulation.
- (2) Single channel containing quantized or digital information without the use of a modulating subcarrier.
- (3) Telegraphy (for automatic reception).

**F2A**

- (1) Frequency modulation.
- (2) Single channel containing quantized or digital information with the use of a modulating subcarrier.
- (3) Telegraphy (for aural reception).

**F3E**

- (1) Frequency modulation.
- (2) Single channel containing analog information.
- (3) Telephony (including sound broadcasting).

**F3C**

- (1) Frequency modulation.
- (2) Single channel containing analog information.
- (3) Facsimile.

**F3F**

- (1) Frequency modulation.
- (2) Single channel containing analog information.
- (3) Television (video).

**P1B**

- (1) Sequence of unmodulated pulses.
- (2) Single channel containing quantized or digital information without the use of a modulating subcarrier.
- (3) Telegraphy (for automatic reception).

Pulse Modulation:

GHz = gigahertz

kHz = kilohertz

MHz = megahertz

## DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS)

Differential Global Positioning System (DGPS) is a radio-based navigation system that eliminates errors in a GPS receiver that will allow the accuracy level to be significantly enhanced. DGPS accuracy can be 10 meters or better, compared with 100 meters or better with GPS. This is possible by placing a high-performance GPS receiver (reference station) at a known location. Because the receiver knows its exact location, it can determine the errors in the satellite signals. The satellite measures the ranges to each satellite using the signals received and comparing these measured ranges to the actual ranges calculated from its known position. The total error is the difference between the measured and calculated range. The error data for each tracked satellite is formatted into a correction message and transmitted to GPS users. The correction message format follows the standard established by the Radio Technical Commission for Maritime Services, Special Committee 104 (RTCM-SC104). These differential corrections are then applied to the GPS calculations, thus removing most of the satellite signal error and improving accuracy.

Terms for understanding DGPS:

### DGPS Correction Receiver

A DGPS correction receiver decodes the signals received from a reference site. Data is formatted into a serial RTCM SC104 data stream and provided to the remote GPS receiver. There are many types of DGPS correction receivers.

### GPS Receivers

The GPS receiver measures ranges to each satellite, but

before the measurements are used to calculate position, corrections received from the DGPS receiver are applied to the measurements. The position is then calculated using the corrected range measurements providing vastly increased accuracy.

### Modulator

Depending on the transmission format, the modulator encodes the data as necessary for transmission.

### Reference Station

The reference station GPS receiver knows exactly the position of its antenna, therefore it knows what each satellite range measurement should be. It measures the ranges to each satellite using the received signals just as if it was going to calculate position. The measured ranges are subtracted from the known ranges and the result is range error. The range error values for each satellite are formatted into messages in the RTCM SC104 format and transmitted continuously.

### Transmitter

The transmitter is basically a power amplifier which is connected to an antenna system. The modulated carrier is amplified and driven to the antenna. In the United States Coast Guard system, the transmitter is 250-1000 Watts and operates in the 300Khz frequency range. The amplified signal is radiated via the antenna to remote DGPS receivers for real-time position correction.

## DESCRIPTION

(Differential GPS Stations)

Information is tabulated in eight columns as follows:

**Column 1:** The number assigned to each DGPS Station by this Agency.

**Column 2:** Name of the DGPS Station.

**Column 3:** Approximate latitude and longitude of the DGPS Transmitting Station to the nearest tenth of a minute.

**Column 4:** Station ID which can be found in the IALA Master list. No two stations have the same ID. **T** denotes the Transmitting Station, **R** denotes the Reference Station.

**Column 5:** Range (approximate) in nautical miles.

**Column 6:** Frequency in kHz.

**Column 7:** Transfer Rate which equates to the baud rate and will be published as a whole number without any additional abbreviations such as “bps” (bits per second).

**Column 8:** Remarks. This column contains information about the reference stations and messages types transmitted. GPS Message Type Numbers are 1, 3, 4, 5, 6, 7, 9, 15 and 16. (*Refer to message type descriptions below*)

### GPS MESSAGE TYPE NUMBER INDICATORS

1	Differential GNSS corrections (full set of satellites)
3	Reference stations parameters
4	Datum used
5	Constellation health
6	Null frame (no information)
7	Radiobeacons Almanacs
9	Sub-set differential GNSS corrections
15	Ionospheric corrections
16	Special messages

# List of Lights

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>ENGLAND-SCILLY ISLES</b>							
4 A 0002	Bishop Rock	49° 52.4' N 6° 26.7' W	<b>FI.(2)W.</b> period 15s fl. 0.1s, ec. 2.2s fl. 0.1s, ec. 12.6s	144 44	20	Grey round granite tower; 161.	Visible 233°-236° and 259°- 204°. Partially obscured 204°-211°, Obscured - 233°, Obscured 236°- 259°. AIS (MMSI No 992351137). Helicopter platform.
	RACON		<b>T(-)</b>		18		Azimuth coverage 254°- 215°.(3 & 10 cm).
8 A 0006	Peninnis Head	49° 54.3' N 6° 18.2' W	<b>FI.W.</b> period 20s fl. 1s, ec. 19s	118 36	9	White round metal tower, black metal framework tower, black cupola; 46.	Visible 231°-117°. Partially obscured 48°-83° in places at distances of less than 5M.
16 A 0018	Round Island	49° 58.7' N 6° 19.4' W	<b>FI.W.</b> period 10s fl. 0.3s, ec. 9.7s	180 55	18	White round tower; 62.	Visible 21°-288°. Shown by day during reduced visibility. <b>Horn:</b> 4bl. ev. 60s (bl. 1s, si. 2s, bl. 1s, si. 2s, bl. 1s, si. 2s, bl. 1s, si. 50s)
20 A 0020	SEVEN STONES LIGHTFLOAT	50° 03.6' N 6° 04.3' W	<b>FI.(3)W.</b> period 30s fl. 0.5s, ec. 4.5s fl. 0.5s, ec. 4.5s fl. 0.5s, ec. 19.5s		15	Red hull, light tower amidships; 39.	Also shown by day when fog signal is operating. <b>Horn:</b> 3bl. ev. 60s (bl. 2s, si. 2s, bl. 2s, si. 2s, bl. 2s, si. 50s).
	RACON		<b>O(- - -)</b>				(3 & 10 cm).
<b>ENGLAND-SOUTH COAST</b>							
24 A 0028	Longships	50° 04.0' N 5° 44.8' W	<b>FI.(2)W.R.</b> period 10s fl. 1s, ec. 1.5s fl. 1s, ec. 6.5s	115 35	<b>W. 15</b> R. 11	Grey round granite tower; 115.	R. 189°-327°, W. -189°. Also shown in reduced visibility. Helicopter platform. <b>Horn:</b> 1bl. ev. 10s (bl. 1s, si. 9s)
28 A 0030	Wolf Rock	49° 56.7' N 5° 48.6' W	<b>FI.W.</b> period 15s fl. 0.2s, ec. 14.8s	112 34	16	Grey round granite tower, black lantern; 135.	Also shown in reduced visibility. AIS (MMSI No 992351128). Helicopter platform. <b>Horn:</b> 1bl. ev. 30s (bl. 1s, si. 29s).
	RACON		<b>T(-)</b>				(3 & 10 cm).
32 A 0032	Tater-du	50° 03.1' N 5° 34.7' W	<b>FI.(3)W.</b> period 15s fl. 0.1s, ec. 2.4s fl. 0.1s, ec. 2.4s fl. 0.1s, ec. 9.9s	112 34	12	White round tower; 49.	Visible 241°-72°.
			<b>F.R.</b>	102 31	9		Visible 60°-72° over Runnel Stone, Partially obscured 72°-77° within 4M.
40 A 0038	Newlyn Harbour, S. pier, head	50° 06.2' N 5° 32.6' W	<b>FI.W.</b> period 5s fl. 1s, ec. 4s	33 10	9	White round metal tower, red cupola, base; 33.	Visible 253°-336°.
44 A 0040	-N. pier, head	50° 06.1' N 5° 32.6' W	<b>F.W.G.</b>	13 4	2	Green metal post, pedestal.	G. 238°-248°. W. over the harbor. F.R. shown from inner head. F.R. range lights mark fish market.
46 A 0045	The Gear	50° 06.6' N 5° 31.6' W	<b>FI.(2)W.</b> period 10s			ISOLATED DANGER Black beacon, black topmark, red banded, black base.	

PENZANCE:

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>ENGLAND-SOUTH COAST</b>							
48 A 0046	-S. pier, head	50° 07.1' N 5° 31.7' W	<b>Fl.W.R.</b> period 5s	36 11	<b>W. 17</b> R. 12	White round tower, black base; 30.	R. UNINTENSIFIED 159°-224°, R. -268°, W. -344°30', R. -56°30'.
52 A 0048	-Albert pier, head	50° 07.1' N 5° 31.8' W	<b>2F.G.</b> (vert.)	36 11	2	Grey metal column; 20.	2 meters apart.
56 A 0051	-Dock entrance, NW. side	50° 07.0' N 5° 31.8' W	<b>2F.R.</b> (vert.)	20 6	2	Column; 13.	
60 A 0056	Porthleven, on pier, S. side	50° 04.9' N 5° 19.1' W	<b>F.G.</b>	33 10	4	Green metal column; 20.	Shown only when inner harbor is open to shipping. F.G. (occasional) shown inside harbor 33°-67° when required for vessels entering.
64 A 0060	Lizard Point	49° 57.6' N 5° 12.1' W	<b>Fl.W.</b> period 3s fl. 0.1s, ec. 2.9s	230 70	<b>26</b>	White octagonal tower, at e. end of building; 62.	Visible 250°-120°. Partially visible 235°-250°. F.W. may also be seen within 12M. Storm signals. <b>Dgps station.</b> Horn: 1bl. ev. 30s (bl. 3s, si. 27s)
FALMOUTH:							
68 A 0062	-St. Anthony	50° 08.5' N 5° 01.0' W	<b>Iso.W.R.</b> period 15s	72 22	W. 12 R. 9	White octagonal tower; 62.	W. 295°-4°, R. -22° over Manacle rocks, W. -172°. Shown 24 hours. <b>Horn:</b> 1bl. ev. 30s (bl. 3s, si. 27s)
70	-Southover Scorpio Lighted Buoy	50° 08.3' N 4° 59.8' W	<b>Q.(6) + L.Fl.W.</b> period 15s			S. CARDINAL Column, yellow top, black base, daymark.	
	RACON		<b>D(- · ·)</b> period 30s		10		
72 A 0064	-E. breakwater, head	50° 09.4' N 5° 03.0' W	<b>2F.R.</b> (vert.)	7 2		Dolphin.	Flood light. 2 meters apart.
80 A 0065	-W. breakwater, head	50° 09.4' N 5° 03.2' W	<b>Q.R.</b>	16 5	3	Red latticed tower; 7.	
84 A 0066	-Custom House quay, head	50° 09.2' N 5° 03.9' W	<b>2F.R.</b> (vert.)	16 5		Grey column; 16.	
88 A 0068	-Fish Strand quay	50° 09.3' N 5° 04.1' W	<b>2F.R.</b> (vert.)	16 5		Red column; 13.	
92 A 0069	-Prince of Wales pier, head	50° 09.4' N 5° 04.1' W	<b>2F.R.</b> (vert.)	20 6		White concrete column; 16.	
96 A 0070	-Greenbank quay	50° 09.7' N 5° 04.4' W	<b>Fl.R.</b> period 2s	20 6		Grey column; 16.	
100 A 0078	Mevagissey, S. breakwater, head	50° 16.1' N 4° 46.9' W	<b>Fl.(2)W.</b> period 10s fl. 1.5s, ec. 2s fl. 1.5s, ec. 5s	30 9	12	White metal tower, black base; 26.	Fishing light. <b>Diaphone:</b> 1bl. ev. 30s (bl. 2s, si. 28s)
102 A 0080	Charlestown, N. breakwater, head	50° 19.8' N 4° 45.3' W	<b>2F.G.</b> (vert.)	16 5	1		
102.5 A 0080.2	-S. breakwater, head	50° 19.8' N 4° 45.3' W	<b>2F.R.</b> (vert.)	16 5	1		
FOWEY:							
104 A 0082	-Fowey	50° 19.6' N 4° 38.8' W	<b>L.Fl.W.R.</b> period 5s fl. 2s, ec. 3s	92 28	W. 11 R. 9	White octagonal tower, red lantern; 20.	R. 284°-295°, W. -28°, R. -54°.
108 A 0084	-Whitehouse Point	50° 20.0' N 4° 38.3' W	<b>Iso.W.R.G.</b> period 3s	36 11	W. 11 R. 8 G. 8	Red metal column; 14.	G. 17°-22°, W. -32°, R. -37°.
112 A 0086	-N. pier, head	50° 20.0' N 4° 38.2' W	<b>2F.R.</b> (vert.)	13 4	8	Red post; 7.	
POLPERRO:							

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>ENGLAND-SOUTH COAST</b>							
118 A 0090	-Spy House Point	50° 19.8' N 4° 30.7' W	<b>Iso.W.R.</b> period 6s	98 30	7	White concrete column; 10.	W. 288°-60°, R. -288°.
120 A 0092	-Tidal basin, W. pier, head	50° 19.8' N 4° 30.9' W	<b>F.W.</b>	13 4	4	Post; 10.	Shows F.R. when harbor is closed.
LOOE:							
124 A 0093	-Looe Harbor entrance	50° 20.6' N 4° 26.9' W	<b>Q.(3)W.</b> period 10s		2	E. CARDINAL Black beacon, black topmark, yellow banded, black base.	
128 A 0094	-Looe	50° 21.0' N 4° 27.1' W	<b>Oc.W.R.</b> period 3s lt. 2s, ec. 1s	26 8	<b>W. 15</b> R. 12	Red metal column; 20.	R. 207°-267°, W. -313°, R. -332°. Fishing light.
132 A 0098	Eddystone	50° 10.8' N 4° 15.9' W	<b>FI.(2)W.</b> period 10s fl. 0.1s, ec. 2.4s fl. 0.1s, ec. 7.4s	135 41	<b>17</b>	Grey granite tower, red lantern; 161.	Reserve light range 10M. AIS (MMSI No 992351125). Helicopter platform. Horn: 1bl. ev. 30s (bl. 3s, si. 27s).
			<b>Iso.</b> period 10s				
	RACON		<b>T(-)</b>		10		(3 & 10 cm).
PLYMOUTH:							
140 A 0111.2	-Whidbey	50° 19.5' N 4° 07.3' W	<b>Oc.(2)W.R.G.</b> period 10s lt. 3s, ec. 1s lt. 5s, ec. 1s	95 29	W. 8 R. 6 G. 6	Orange and white metal column.	G. 0°-137°30', W. -139°30', R. -159°. Auxiliary light Q.Y. Shown 24 hours.
144 A 0112	-Maker Point	50° 20.5' N 4° 10.9' W	<b>FI.(2)W.R.G.</b> period 10s fl. 0.5s, ec. 3s fl. 0.5s, ec. 6s	52 16	W. 11 R. 6 G. 6	White concrete tower, red stripe; 15.	G. 270°-330°, W. -4°, R. -50°. Auxiliary light Q.Y.
148 A 0114	-Plymouth, breakwater, W. head	50° 20.1' N 4° 09.5' W	<b>FI.W.R.</b> period 10s fl. 1s, ec. 9s	62 19	W. 12 R. 9	White round granite tower; 75.	W. 262°-208°, R. -262°. F.R. and traffic signals on framework tower on fort 700 meters E. Horn: 1bl. ev. 15s
150 A 0114.5	-E. head	50° 20.0' N 4° 08.2' W	<b>L.FI.W.R.</b> period 10s fl. 3s, ec. 7s	30 9	W. 8 R. 6	Beacon, black ball topmark.	R. 1°-18°, W. -190°, R. -353°, W. -1°.
153 A 0115.5	-Staddon Point	50° 20.2' N 4° 07.5' W	<b>Oc.W.R.G.</b> period 10s	49 15	W. 8 R. 5 G. 5	White concrete structure, red banded; 20.	G. 348°-38°, W. -50°, R. -90°.
160 A 0117	-Withyhedge	50° 20.7' N 4° 07.4' W	<b>Dir.W.R.G.</b>	43 13	W. 13 R. 5 G. 5	Column, white triangle, point down daymark orange stripe.	F.G. 60°-65°, Al.W.G.-69° (W. phase increasing with bearing), F.W.-71°, Al.W.R.-75° (R. phase increases with bearing), F.R. -80°.
			<b>FI.(2)Bu.</b> period 5s fl. 0.5s, ec. 1s fl. 0.5s, ec. 3s		10		Visible 120°-160°. Auxiliary light Q.Y.
164 A 0119	-Hoe Range, front	50° 21.6' N 4° 08.3' W	<b>Q.W.R.G.</b>	16 5	W. 10 R. 3 G. 3	White column, orange banded, triangle, point up daymark.	G. 233°-43°, R. -67°, G. -87°, W. -99°, R. 99°-108° (leading sector). FI.W. 5s show in fog, visible 232°-110°. Auxiliary light Q.Y.
168 A 0119.1	--Rear, 396 meters 349° from front	50° 21.8' N 4° 08.4' W	<b>Oc.G.</b> period 1.3s lt. 1s, ec. 0.3s	36 11	3	Column, white triangle, point down daymark orange stripe.	Visible 310°-40°. Auxiliary light Q.Y.
172 A 0122	-Royal Western Yacht Club	50° 21.8' N 4° 08.8' W	<b>Dir.W.R.G.</b>	30 9	W. 13 R. 5 G. 5	Orange triangle, point down daymark.	F.G. 309°-311°, Al.F.G. -314° (W. phase increasing with bearing), F.W. -317°, Al.W.R. -320° (R. phase increasing with bearing), F.R. -329°. F.W. shown in fog, visible 314°-317°. Auxiliary light Q.Y. Shown 24 hours.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>ENGLAND-SOUTH COAST</b>							
176 A 0124	--Mount Batten, breakwater, W. head	50° 21.6' N 4° 08.1' W	<b>2F.G.</b> (vert.)	23 7	4	Metal column.	F.R. on radio mast on Drake's Island 0.74 mile WSW. 2 F.R. on Civic Center 0.7 mile NNW.
180 A 0134	--Cobbler Channel Range, (Fisher's Nose), front	50° 21.8' N 4° 08.0' W	<b>F.Bu.</b>			Metal column; 13.	Visible INTENSIFIED 22°30' - 30°30'.
			<b>Fl.(3)R.</b> period 10s	20 6	4		
180.5 A 0134.1	--Rear, 404 meters 026°30' from front	50° 22.0' N 4° 07.9' W	<b>F.Bu.</b>				Visible INTENSIFIED 22°30' - 30°30'.
182 A 0131	--Queen Anne's Battery Range, front	50° 21.8' N 4° 07.8' W	<b>Oc.R.</b> period 8s			White beacon, red banded, red ball topmark.	
184 A 0132	--Rear, 140 meters 048°30' from front	50° 21.9' N 4° 07.8' W	<b>Oc.R.</b> period 8s	46 14	3	White tower, red-roofed building.	
188 A 0137	--Victoria pier, head	50° 21.8' N 4° 07.6' W	<b>2F.R.</b> (vert.)	26 8	4	Red metal column; 16.	
192 A 0136	--Approach, 102°	50° 21.7' N 4° 07.3' W	<b>Dir.F.W.R.G.</b>	89 27	8	Red and white column.	G. 90°42' -100°42', W. - 103°12', R. -113°12'.
196 A 0138	--Turnchapel, 128°30'	50° 21.5' N 4° 07.0' W	<b>Dir.F.W.R.G.</b>	161 49	8	Red and white tower.	G. 117°48' -127°48', W. - 129°12', R. -139°12'.
201 A 0141	--Clovelly Bay Range, front	50° 21.5' N 4° 07.4' W	<b>F.R.</b>			Beacon.	
202 A 0141.1	--Rear, 198° from front	50° 21.5' N 4° 07.4' W	<b>F.R.</b>			Red and white metal tower, white diamond (rhombus) daymark; 33.	
202.5 A 0126	--Pontoon	50° 21.7' N 4° 07.8' W	<b>2F.G.</b> (vert.)				At either end of pontoon.
208 A 0147	--Phoenix wharf	50° 21.9' N 4° 08.0' W	<b>2F.R.</b> (vert.)	20 6		Green metal column; 10.	
209 A 0148	--Queen Anne's, breakwater, knuckle	50° 21.9' N 4° 07.9' W	<b>Oc.G.</b> period 8s lt. 6s, ec. 2s	16 5	2	Silver metal column; 10.	
210 A 0148.5	--Head	50° 21.9' N 4° 07.9' W	<b>Fl.(2)G.</b> period 5s	16 5	2	Silver metal column; 10.	
224 A 0157	--Sutton wharf, head	50° 22.1' N 4° 07.9' W	<b>2F.R.</b> (vert.)			Metal post; 10.	Traffic signals shown from E. side of entrance lock at N. and S. ends.
240 A 0164	--Pier, 048°30'	50° 21.8' N 4° 09.0' W	<b>Dir.Q.W.R.G.</b>	39 12	W. 13 R. 8 G. 8	White concrete tower, red banded; 36.	G. 38°30' -45°30', W. - 51°30', R. -58°30', G. 315°30' -321°30', W. - 329°30', R. -335°30'. Auxiliary light Q.Y.
244 A 0166	--E. pier, head	50° 21.7' N 4° 09.2' W	<b>Q.G.</b>	33 10	2	Concrete column; 26.	
245 A 0166.2	--N. side	50° 21.8' N 4° 09.1' W	<b>Oc.G.</b> period 4s				
246 A 0166.4	--Marina, wavescreen, S. head	50° 21.8' N 4° 09.1' W	<b>Oc.R.</b> period 4s				
248 A 0167	--W. pier, head	50° 21.8' N 4° 09.3' W	<b>Q.R.</b>		2	Piles.	
252 A 0168	--Trinity pier, No 1	50° 21.8' N 4° 09.2' W	<b>2F.G.</b> (vert.)		2	Dolphin.	2 meters apart.
253 A 0168.2	--No 3	50° 21.8' N 4° 09.2' W	<b>Fl.(2)W.</b> period 5s	23 7		Dolphin.	
254 A 0161	--Eastern King	50° 21.7' N 4° 09.4' W	<b>Fl.W.</b> period 5s			On roof of degaussing station.	Visible 259°-62°. Shown in fog. Auxiliary light Q.Y.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>ENGLAND-SOUTH COAST</b>							
255 A 0162	--Western King, 271°	50° 21.6' N 4° 09.8' W	<b>Dir.W.R.G.</b>	46 14	W. 13 R. 5 G. 5	White column, white triangle, point down daymark orange stripe.	F.G. 264°-266°, Al.W.G. - 270° (W. phase increasing with bearing), F.W. -272°, Al.W.R. -276° (R. phase increasing with bearing), F.R. -284°. Auxiliary light Q.Y.
256 A 0170	--Ravenness, 225°	50° 21.1' N 4° 10.1' W	<b>Dir.W.R.G.</b>	36 11	W. 13 R. 5 G. 5	Column, white triangle, point down daymark orange stripe.	F.G. 217°-221°, Al.W.G. - 224° (W. phase increasing with bearing), F.W. -226°, Al.W.R. - 229° (R. phase increasing with bearing), F.R. -237°. Fl.(2)W. 15s shown in fog, visible 160°-305°. Auxiliary light Q.Y.
260 A 0172	--Mount Wise, 343°	50° 22.0' N 4° 10.3' W	<b>Dir.W.R.G.</b>	23 7	W. 13 R. 5 G. 5	White building, white triangle, point down daymark orange stripe.	F.G. 331°-338°, Al.W.G. - 342° (W. phase increasing with bearing), F.W. -334°, Al.W.R. -348° (R. phase increasing with bearing), F.R. -351°. F.W. shown in fog, visible 341°30'-344°30'. Auxiliary light Q.Y.
264 A 0173	--The Bridge	50° 21.0' N 4° 09.9' W	<b>Fl.(2)Bu.</b> period 5s fl. 0.5s, ec. 1s fl. 0.5s, ec. 3s	16 5	3	Column, white triangle, point down daymark orange stripe.	Visible 140°-210°. Auxiliary light Q.Y.
268 A 0174	--Devils Point	50° 21.6' N 4° 10.0' W	<b>Q.G.</b>	16 5	3	Orange and white concrete column.	Fl.W. 5s shown in fog. Auxiliary light Q.Y.
272 A 0176	--Cremyll Shoal	50° 21.6' N 4° 10.4' W	<b>Fl.R.</b> period 4s	16 5		White beacon.	Fl.(2)W. 15s shown in fog, Visible 97°-338°. Auxiliary light Q.Y.
274 A 0178	--Ocean Court, 085°	50° 21.8' N 4° 10.1' W	<b>Q.W.R.G.</b>	49 15	W. 11 R. 3 G. 3	White structure, orange triangle, point down daymark; 10.	<b>AIS</b> (MMSI No 992351357).G. 10°-80°. W. -90°, R. -100°. Fl.W. 5s shown in fog, visible 270°-100°. Auxiliary light Q.Y.
276 A 0182	--Mutton Cove, landing stage	50° 21.9' N 4° 10.6' W	<b>2F.G.</b> (vert.)	16 5	1	Metal column; 10.	
280 A 0184	--Millbrook	50° 21.3' N 4° 11.4' W	<b>Q.W.G.</b>	36 11	W. 11 G. 3	Column, white triangle, point up daymark orange stripe.	G. 165°-180°, W. -230°. Auxiliary light Q.Y.
282 A 0185	--Sango Point	50° 21.7' N 4° 12.4' W	<b>Q.W.</b>	26 8	5	Beacon.	Visible 215°-289°.
284 A 0186	--N. Corner, landing stage, S. head	50° 22.3' N 4° 11.1' W	<b>2F.G.</b> (vert.)	7 2	2	Metal column.	
286 A 0186.2	--N. head	50° 22.3' N 4° 11.1' W	<b>2F.G.</b> (vert.)				
292 A 0192	--Yonderberry Point, on oil jetty	50° 22.9' N 4° 11.7' W	<b>2F.R.</b> (vert.)				
294 A 0193	--NW. corner	50° 23.4' N 4° 11.6' W	<b>Q.W.R.G.</b>	39 12	W. 11 R. 3 G. 3	Column.	<b>AIS</b> (MMSI No 992351358).W. 340°- 355°, R. -25°, G. -55°, W. -110°, R. -140°, W. -230°. Fl.W. 5s shown in fog, visible 310°-220°. Auxiliary light Q.Y.
300 A 0204	--Saltash quay	50° 24.4' N 4° 12.3' W	<b>Fl.R.</b> period 5s	10 3		Concrete column; 10.	Fl.R. 2.5s marks Town Quay close S.
SALCOMBE:							
308 A 0220	--Sandhill Point, 000°	50° 13.7' N 3° 46.7' W	<b>Dir.Fl.W.R.G.</b> period 2s fl. 0.5s, ec. 1.5s	89 27	8	White beacon, red white diamond (rhombus) daymark; 39.	G. 337°30'-357°30', W. - 2°30', R. -12°30'.
312 A 0222	--Range, front	50° 14.5' N 3° 45.2' W	<b>Fl.W.</b> period 2s fl. 0.3s, ec. 1.7s	16 5	8	Mast.	

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<b>ENGLAND-SOUTH COAST</b>							
316 A 0222.1	--Rear, 180 meters from front	50° 14.6' N 3° 45.2' W	<b>Fl.W.</b> period 5s fl. 0.3s, ec. 4.7s	148 45	8	Masonry column; 7.	
320 A 0224	-Landing stage	50° 14.1' N 3° 45.9' W	<b>F.R.</b>	13 4	3	White metal column; 10.	
324 A 0228	Start Point	50° 13.3' N 3° 38.5' W	<b>Fl.(3)W.</b> period 10s fl. 1s, ec. 1s fl. 1s, ec. 1s fl. 1s, ec. 5s	203 62	18	White round granite tower; 92.	Visible 184°-68°. <b>Horn:</b> 1bl. ev. 30s (bl. 3s, si. 27s)
			<b>F.R.</b>	180 55	9		Visible 210°-255° over Skerries Bank. <b>Horn:</b> 1bl. ev. 30s (bl. 3s, si. 27s)
DARTMOUTH:							
328 A 0236	-Kingswear	50° 20.8' N 3° 34.1' W	<b>Iso.W.R.G.</b> period 3s	30 9	8	White round glass reinforced plastic(grp) fiberglass tower.	G. 318°-325°, W. -331°, R. -340°.
332 A 0242	-Marina, S. head	50° 21.4' N 3° 34.5' W	<b>2F.R.</b> (vert.)				
336 A 0237	-Kettle Point	50° 20.6' N 3° 33.7' W	<b>F.W.R.G.</b>	16 5	9	Red lantern.	G. 90°-102°, W. -107°, R. -115°.
340 A 0238	-Bayards Cove	50° 20.8' N 3° 34.6' W	<b>Fl.W.R.G.</b> period 2s fl. 0.5s, ec. 1.5s	16 5	6	White stripe on rock.	G. 280°-289°, W. -297°, R. -5°.
344 A 0244	Berry Head	50° 24.0' N 3° 29.0' W	<b>Fl.(2)W.</b> period 15s fl. 1s, ec. 1s fl. 1s, ec. 12s	190 58	19	White tower; 16.	Visible 100°-23°.
TORBAY:							
348 A 0246	-Brixham, breakwater, head	50° 24.3' N 3° 30.8' W	<b>Oc.R.</b> period 15s fl. 12s, ec. 3s	30 9	6	White tower; 21.	
357 A 0247.4	--Prince William Marina, Wave Screen, SW. head	50° 23.9' N 3° 30.5' W	<b>2F.R.</b> (vert.) period 5s	13 4	2	Mast; 13.	2 meters apart.
358 A 0247.6	--E. head	50° 24.0' N 3° 30.5' W	<b>2F.G.</b> (vert.) period 5s	13 4	2	Mast; 13.	2 meters apart.
364 A 0249	--Fish Market Pier, head, SW. corner	50° 23.9' N 3° 30.6' W	<b>2F.G.</b> (vert.)	16 5	1	Building.	2 meters apart.
368 A 0249.2	--NW. corner	50° 23.9' N 3° 30.6' W	<b>2F.G.</b> (vert.)	16 5	1	Building.	2 meters apart.
372 A 0249.5	--Slipway	50° 23.9' N 3° 30.7' W	<b>Q.G.</b>				
376 A 0250	-Paignton Harbour, E. quay, head	50° 26.0' N 3° 33.3' W	<b>Q.R.</b>	23 7	3	Red metal column; 16.	Difficult to distinguish by day.
380 A 0254	--Haldon pier, head	50° 27.4' N 3° 31.7' W	<b>Q.G.</b>	30 9	6	Metal column; 23.	
384 A 0256	--Inner harbor pier, head	50° 27.5' N 3° 31.5' W	<b>2F.G.</b> (vert.)	20 6	5	Metal structure; 3.	Traffic signals.
388 A 0252	--Princess Pier, head	50° 27.4' N 3° 31.7' W	<b>Q.R.</b>	30 9	6	Metal column; 23.	
TEIGNMOUTH:							
392 A 0262	-The Den	50° 32.5' N 3° 29.8' W	<b>F.R.</b>	33 10	6	Grey round tower; 20.	Visible 225°-70°. F.Bu. range lights, 021°, are shown at New Quay to assist pilots.
396 A 0262.1	--Powderham Terrace	50° 32.5' N 3° 29.7' W	<b>F.R.</b>	36 11	3	Black column; 33.	

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<b>ENGLAND-SOUTH COAST</b>							
400 A 0263	--Phillip Lucette Beacon	50° 32.3' N 3° 29.9' W	<b>Oc.R.</b> period 6s	13 4	3	White masonry column.	
402 A 0263.5	-Den Point, SW. head	50° 32.4' N 3° 30.0' W	<b>Oc.G.</b> period 6s		3	Green beacon.	
			<b>F.G.</b>		3		Mounted 2 meters below Oc.G. 6s light.
EXMOUTH:							
408 A 0274	-Custom House	50° 37.0' N 3° 25.3' W	<b>Dir.Iso.W.R.G.</b> period 2s	20 6	6	White metal column; 7.	G. 299°-304°, W. -306°, R. -311°.
418 A 0278	Sidmouth	50° 40.5' N 3° 14.4' W	<b>Fl.R.</b> period 5s	16 5	2		Visible 230°-100°.
420 A 0280	Beer, near church	50° 41.8' N 3° 05.4' W	<b>F.W.</b>	85 26		Metal column; 16.	Difficult to distinguish.
424 A 0284	Lyme Regis Range, front	50° 43.2' N 2° 56.2' W	<b>Oc.W.R.</b> period 8s lt. 6s, ec. 2s	20 6	W. 9 R. 7	Blue metal column; 16.	R. 284°-104°, W. -284°.
428 A 0284.1	-Rear, 280 meters 284° from front	50° 43.2' N 2° 56.3' W	<b>F.G.</b>	26 8	9	Building.	
432 A 0288	Bridport, E. pier, head	50° 42.6' N 2° 45.8' W	<b>Fl.G.</b> period 8s	16 5	4		
PORTLAND:							
448 A 0294	-Bill of Portland	50° 30.9' N 2° 27.4' W	<b>Fl.(4)W.</b> period 20s fl. 0.1s, ec. 1.4s fl. 0.1s, ec. 1.4s fl. 0.1s, ec. 1.4s fl. 0.1s, ec. 15.4s	141 43	18	White round tower, red band; 135.	Visible 221°-141°. Gradually changes from 1 flash to 4 flashes 221°-244°, 4 flashes -117°, gradually changes from 4 flashes to 1 flash -141°. Diaphone: 1bl. ev. 30s (bl. 4s, si. 26s).
			<b>F.</b>				
449 A 0293	--Calibration range	50° 30.9' N 2° 27.5' W	<b>Oc.(2)Y.</b> period 10s lt. 1s, ec. 1s lt. 7s, ec. 1s	66 20	10		Visible 305°-125°. Shown when range is in use.
452 A 0302	--S. Ship Channel, breakwater, SW. head	50° 34.1' N 2° 25.3' W	<b>Mo.(U)W.</b> period 15s	39 12	5		F.R. on towers 2.8 miles NW. and 0.68 mile WSW.
456 A 0310	--E. Ship Channel, NW. part of fort	50° 35.1' N 2° 24.9' W	<b>Q.R.</b>	46 14	5	Lattice metal tower; 7.	Visible 13°-268°.
464 A 0314	--A, S. head	50° 35.2' N 2° 25.1' W	<b>Fl.W.</b> period 2.5s	72 22	10	White metal tower; 72.	
468 A 0320	--NW. end (B head) N. Channel	50° 35.7' N 2° 25.9' W	<b>Oc.R.</b> period 15s	36 11	5	Grey metal column; 7.	
472 A 0322	--N. arm, C, SE. head	50° 35.8' N 2° 26.0' W	<b>Oc.G.</b> period 10s	36 11	5	Grey metal column; 7.	
480 A 0334	---Elbow	50° 34.3' N 2° 26.4' W	<b>Iso.R.</b> period 2s	20 6	2	Lattice metal tower; 10.	
484 A 0332	---S. corner, head	50° 34.4' N 2° 26.2' W	<b>Fl.G.</b> period 5s fl. 1s, ec. 4s	16 5	5	Lattice metal tower; 10.	
488 A 0330	---N. corner, head	50° 34.4' N 2° 26.2' W	<b>Fl.R.</b> period 5s fl. 1s, ec. 4s	16 5	5	Lattice metal tower; 10.	
492 A 0327	-Coaling pier, catwalk, head	50° 34.3' N 2° 25.9' W	<b>V.Q.(3)W.</b> period 5s		2	Dolphin.	F.R. lights mark catwalk.
496 A 0327.5	-Deep water berth, E. head	50° 34.3' N 2° 25.9' W	<b>2F.R.(vert.)</b>	16 5	2	Metal column.	
500 A 0327.6	--W. head	50° 34.3' N 2° 26.0' W	<b>2F.R.(vert.)</b>	16 5	2	Metal column.	

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<b>ENGLAND-SOUTH COAST</b>							
508 A 0326.2	-N. arm	50° 34.1' N 2° 26.0' W	<b>2F.R.</b> (vert.)	13 4	2	Metal column; 7.	
512 A 0326.5	-Loading jetty, N. head	50° 34.2' N 2° 26.0' W	<b>Q.W.</b>	13 4	2	Metal column.	
517 A 0324	-East Ship Channel Range, front	50° 34.1' N 2° 25.9' W	<b>F.R.</b>	20 6	3	Masonry wall.	
517.1 A 0324.1	--Rear, 120 meters 210° from front	50° 34.0' N 2° 25.9' W	<b>F.R.</b>	56 17	3	White building.	
520 A 0339	-New Channel	50° 34.9' N 2° 27.7' W	<b>L.FI.W.</b> period 10s fl. 2s, ec. 8s	10 3	5	White metal piles.	
528 A 0354	-N. pier, head	50° 36.6' N 2° 26.6' W	<b>2F.G.</b> (vert.)	30 9	6	Green column.	2 meters apart. Storm Signal.
532 A 0348	-Ballast Quay Range, front	50° 36.5' N 2° 26.9' W	<b>F.R.</b>	16 5	7	White post, red diamond (rhombus) daymark; 10.	
536 A 0348.1	--Rear, 17 meters 239°38' from front	50° 36.5' N 2° 26.9' W	<b>F.R.</b>	23 7	7	White mast, red diamond (rhombus) daymark; 16.	Bridge traffic signals shown 530 meters W.
WEYMOUTH HARBOUR:							
540 A 0346	-S. stone pier, head	50° 36.6' N 2° 26.5' W	<b>Q.W.</b>	33 10	9	White mast, grey metal platform; 26.	Traffic signals shown 190 meters SW.
544 A 0496	Anvil Point	50° 35.6' N 1° 57.5' W	<b>FI.W.</b> period 10s fl. 1s, ec. 9s	148 45	9	White round tower, dwelling; 39.	Visible 237°-76°.
548 A 0498	Swanage, pier, head	50° 36.6' N 1° 57.0' W	<b>2F.R.</b> (vert.)	20 6	3	Mast; 10.	
POOLE:							
560 A 05	-Training Bank	50° 39.8' N 1° 55.9' W	<b>2F.R.</b> (vert.)			PORT (IALA A) Red beacon, topmark.	
572 A 0506	-N. Haven Point	50° 41.1' N 1° 57.1' W	<b>Q.(9)W.</b> period 15s	16 5		W. CARDINAL Yellow tower, black topmark, black banded, yellow base.	2 F.G. (vert.) light shown on either side of ramp at Sandbanks ferry landing. 2 F.R. (vert.) light shown on either side of ramp at South Haven Point ferry landing.
573 A 0520.6	-Furzey Island, Slipway Range, front	50° 40.9' N 1° 58.9' W	<b>FI.Y.</b> period 2s				FI.G. 5s on 3 mooring dolphins 60 meters SE.
574 A 0520.61	--Rear, 35 meters 305° from front	50° 40.9' N 1° 58.9' W	<b>FI.Y.</b> period 2s				
576 A 0521	Bournemouth, pier, head	50° 42.8' N 1° 52.5' W	<b>2F.R.</b> (vert.)	30 9	1	White column; 13.	2 meters apart. Bell, to assist berthing of vessels. <b>Reed:</b> 2bl. ev. 120s
580 A 0522	Boscombe, pier, head	50° 43.1' N 1° 50.6' W	<b>2F.R.</b> (vert.)	23 7	1	Red column; 10.	
NEEDLES CHANNEL:							
584 A 0528	-Needles	50° 39.7' N 1° 35.5' W	<b>Oc.(2)W.R.G.</b> period 20s lt. 2s, ec. 2s lt. 14s, ec. 2s	79 24	<b>W. 16</b> R. 11 G. 11	Round granite tower, red banded, red lantern; 102.	R. 261°-300°, W. -83°, R. UNINTENSIFIED-212°, W. -217°, G. -224°. Shown 24 hours. Helicopter platform. <b>Horn:</b> 2bl. ev. 30s (bl. 2s, si. 2s, bl. 2s, si. 25s)
588 A 0534	-Totland Bay, on pier	50° 41.0' N 1° 32.7' W	<b>2F.G.</b> (vert.)	20 6	2		
596 A 0538.1	-Hurst Point	50° 42.5' N 1° 33.0' W	<b>FI.(4)W.R.</b> period 15s fl. 0.9s, ec. 1.1s fl. 0.9s, ec. 1.1s fl. 0.9s, ec. 1.1s fl. 0.9s, ec. 8.1s	75 23	W. 13 R. 11	White round tower; 85.	W. 80°-104°, W. 234°-244°, R. -250°, W. -53°. Obscured beyond Isle of Wight.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>ENGLAND-SOUTH COAST</b>							
			<b>Dir.Iso.W.R.G.</b> period 4s	62 19	<b>W. 21</b> <b>R. 18</b> <b>G. 17</b>		G. 38°48' -40°48', W. - 41°48', R. -43°48'. Range W. 7M, R. 5M, G. 5M by day. False flashes from W. sector may be seen in certain weather conditions S. of G. sector within 3M.
600 A 0542	-Lymington Range, front	50° 45.2' N 1° 31.7' W	<b>F.R.</b>	39 12	8	Metal column; 36.	Visible 309°30'-329°30'.
604 A 0542.1	--Rear, 363 meters 319°30' from front	50° 45.4' N 1° 31.9' W	<b>F.R.</b>	56 17	8	Metal column; 56.	Visible 309°30'-329°30'. Several lights mark banks of river.
606 A 0541	-Jack in the Basket	50° 44.3' N 1° 30.6' W	<b>FI.R.</b> period 2s fl. 0.4s, ec. 1.6s	30 9	3	Post, red square daymark; 39.	
607 A 0544	-Lymington River Beacon No 1	50° 44.4' N 1° 30.5' W	<b>FI.G.</b> period 2s fl. 0.4s, ec. 1.6s	7 2	3	STARBOARD (IALA A) Green piles, topmark; 20.	
608 A 0543	--Cross Boom, Beacon No 2	50° 44.4' N 1° 30.6' W	<b>FI.R.</b> period 2s fl. 0.4s, ec. 1.6s	13 4	3	PORT (IALA A) Red piles, topmark; 26.	
612 A 0552	-Obstruction, S. head	50° 45.4' N 1° 27.1' W	<b>Q.R.</b>			Dolphin.	
616 A 0553.2	-Beaulieu Spit, E. head	50° 46.9' N 1° 21.8' W	<b>FI.R.</b> period 5s		3	Red dolphin, white banded.	
624 A 0555	--Victoria pier, head	50° 42.5' N 1° 31.2' W	<b>2F.G.(vert.)</b>		4	Column.	2 meters apart.
628 A 0562	---Range, front	50° 42.4' N 1° 30.1' W	<b>F.G.</b>	16 5	2	White metal post, white diamond (rhombus) daymark black banded.	
632 A 0562.1	----Rear, 63 meters 187°57' from front	50° 42.3' N 1° 30.1' W	<b>F.G.</b>	30 9	2	White mast, white diamond (rhombus) daymark black banded.	
636 A 0558	---Pier, head	50° 42.5' N 1° 30.0' W	<b>2F.R.(vert.)</b>		2	Green metal column.	2 meters apart. Street lights along pier.
640 A 0560	---Jetty, head	50° 42.4' N 1° 30.0' W	<b>2F.R.</b>	13 4	2	White wooden mast.	Second F.R. shown when harbor is full. F.Y. shown in fog.
641 A 0560.5	---Dolphin	50° 42.4' N 1° 30.1' W	<b>Q.G.</b>		3	Dolphin.	Visible 175°-60°.
SOUTHAMPTON WATER:							
664 A 0577	-Outfall	50° 48.3' N 1° 18.8' W	<b>Iso.R.</b> period 10s	20 6	5	Metal mast, four-sided concrete platform.	<b>Radar reflector.</b>
			<b>4F.R.</b>	13 4	1		1 on each corner. <b>Radar reflector.</b>
666 A 0580.6	-Calshot, jetty, head	50° 49.2' N 1° 18.5' W	<b>2F.R.(vert.)</b>				
685 A 590.11	--Hamble Common, 351°42'	50° 51.0' N 1° 18.9' W	<b>Dir.Oc.(2)W.R.G.</b> period 12s	16 5	4	Grey metal post.	G. 348°42'-350°42', W. - 352°42', R. -354°42'.
688 A 0590.14	--No 1	50° 50.4' N 1° 18.6' W	<b>Q.G.</b>	7 2	2	Green beacon.	
692 A 0590.16	--No 2	50° 50.4' N 1° 18.8' W	<b>Q.(3)W.</b> period 10s	7 2	2	E. CARDINAL Black beacon, black topmark, yellow banded, black base.	
698 A 0590.22	--Sailing Club, 028°54'	50° 51.1' N 1° 18.3' W	<b>Dir.Iso.W.R.G.</b> period 6s	16 5	4	Grey metal post.	G. 25°54'-27°54', W. - 29°54', R. -31°54'.
728 A 0594	-BP Hamble Jetty	50° 50.9' N 1° 19.5' W	<b>2F.G.(vert.)</b>	16 5	2	Grey post; 3.	2 meters apart. Three 2 F.G. (vert.) on posts mark dolphin.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>ENGLAND-SOUTH COAST</b>							
732 A 0596	-Prohibited Anchorage, Dir. Lt. 032°49'	50° 51.4' N 1° 19.7' W	F.Y.				Uses moire effect pattern to indicate center line.
740 A 0586	-Fawley Marine Terminal, SE. head	50° 50.0' N 1° 19.4' W	2F.R.(vert.)	30 9	10		2 meters apart. Seven 2 F.R. (vert.) on piles mark oil spill containment boom. F.R. on chimneys 1.5 miles WSW.
740.5 A 0587	--Esso Marine Terminal, Range, front	50° 50.3' N 1° 19.9' W	F.G.	26 8			Visible 305°-335°. Indicates centerline of dredged channel.
740.7 A 0587.1	--Rear, 450 meters 320° from front	50° 50.5' N 1° 20.1' W	F.G.	43 13			Visible 305°-335°.
741 A 0588	--Off NW. head	50° 50.7' N 1° 20.2' W	2F.R.(vert.)			Dolphin.	
744 A 0581.9	-Inshore Range, front	50° 51.3' N 1° 20.3' W	FI.W. period 2s	16 5	3	Metal tower, red white triangle, point up daymark.	Synchronized with 752.
748 A 0582	--Common rear, about 981 meters 326°07' from Inshore, front, 327°25' from Offshore, front	50° 51.8' N 1° 20.7' W	Q.Y.	26 8	5	Metal tower, red white diamond (rhombus) daymark.	
752 A 0582.1	-Offshore Range, front	50° 51.3' N 1° 20.3' W	FI.W. period 2s	16 5	3	Metal tower, red white sphere daymark.	Synchronized with 744.
756 A 0599	-Coastal Forces Base, Admiralty jetty, off head	50° 52.2' N 1° 23.2' W	2F.R.(vert.)			Dolphin.	2 F.R. (vert.) on dolphin 30 meters ENE.
760 A 0601	-Hythe, pier, head	50° 52.5' N 1° 23.6' W	2F.R.(vert.)	39 12	5	Mast; 30.	2 meters apart. Tide gauge.
SOUTHAMPTON:							
768 A 0602	--Queen Elizabeth II Terminal, S. head	50° 53.0' N 1° 23.7' W	4F.G.(vert.)	52 16	3	Latticed tower; 52.	2 meters apart.
772 A 0604	--E. side, No 1	50° 53.2' N 1° 23.4' W	Q.G.			STARBOARD (IALA A) Green dolphin, topmark.	
776 A 0605.5	--No 3	50° 53.5' N 1° 23.3' W	FI.G. period 7s			STARBOARD (IALA A) Green dolphin, topmark.	
780 A 0605	--No 2, about 251 meters 099° from N. head of Empress Dock	50° 53.3' N 1° 23.4' W	FI.G. period 5s		2	STARBOARD (IALA A) Green beacon, topmark.	
784 A 0612	--Empress Dock entrance, N. side	50° 53.3' N 1° 23.6' W	2F.G.(vert.)	26 8	3	Grey lattice metal tower, yellow triangle, point up daymark; 20.	Visible 246°-0°.
788 A 0612.2	-RoRo Terminal S	50° 53.4' N 1° 23.5' W	2F.R.(vert.)				2 meters apart.
800 A 0614	--Beacon No 4, E. side of river	50° 53.6' N 1° 23.2' W	Q.G.	13 4	2	STARBOARD (IALA A) Green beacon, topmark.	<b>Radar reflector.</b>
804 A 0618	--Bridge center	50° 53.9' N 1° 23.1' W	F.W.			On bridge span.	Visible up and down river to mark main channel.
808 A 0618.2	--W. pier	50° 53.9' N 1° 23.1' W	2F.R.(vert.)		2	Piles.	2 meters apart on N. and S. sides of bridge.
812 A 0618.4	--E. pier	50° 53.9' N 1° 23.0' W	2F.G.(vert.)		2	Piles.	2 meters apart on N. and S. sides of bridge.
816 A 0620.5	--Crosshouse beacon	50° 54.0' N 1° 23.2' W	Oc.R. period 5s	16 5	2	PORT (IALA A) Red piles, topmark.	Marks power cable. Private.
820 A 0620.7	--Chapel beacon	50° 54.2' N 1° 23.2' W	FI.G.(vert.) period 3s	16 5	3	STARBOARD (IALA A) Green beacon, topmark; 16.	2 F.R. (vert.) on beacons A and C 80 meters W.
828 A 0621	--Northam, oil jetty, head	50° 54.5' N 1° 22.6' W	2F.R.(vert.)	13 4			2 meters apart.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>ENGLAND-SOUTH COAST</b>							
832 A 0621.2	--Millstone Point, jetty, head	50° 54.6' N 1° 22.6' W	<b>2F.R.</b> (vert.)	23 7			2 meters apart. 2 F.R. (vert.) also mark N. end. F.R. marks tower on head of jetty.
844 A 0626	--Town Quay Range, front	50° 53.6' N 1° 24.3' W	<b>F.W.</b>  <b>2F.G.</b> (vert.)	39 12	3	Radio mast; 115.	
848 A 0626.1	--Royal Pier, rear, 410 meters 329° from front	50° 53.7' N 1° 24.5' W	<b>F.W.</b>	72 22	2	Lattice metal tower, white neon diamond (rhombus) daymark, red border stripe; 75.	
854 A 0628.6	--Ferry Terminal, outer pontoon, head	50° 53.7' N 1° 24.4' W	<b>2F.G.</b> (vert.)				
864 A 0630	--Pumping station Range, front	50° 54.0' N 1° 24.7' W	<b>FI.G.</b> period 1.5s	79 24		Red mast, black and yellow banded, black triangle, point up daymark.	
868 A 0630.1	--Rear, 110 meters 068° from front	50° 54.0' N 1° 24.6' W	<b>FI.G.</b> period 1.5s	82 25		Red mast, black and yellow banded, black x-shape daymark.	
872 A 0632	--Marchwood Military Port, jetty, head	50° 53.7' N 1° 25.3' W	<b>2F.R.</b> (vert.)				
873 A 0632.2	---Jetty, head	50° 53.7' N 1° 25.1' W	<b>2F.R.</b> (vert.)				
874 A 0632.3	---Jetty, head	50° 53.6' N 1° 25.2' W	<b>2F.R.</b> (vert.)				
884 A 0633	--Husband's jetty	50° 53.9' N 1° 25.6' W	<b>2F.R.</b> (vert.)	30 9	2	Dolphin.	2 meters apart.
888 A 0637	--Upper Swinging Ground Range, front	50° 54.5' N 1° 26.3' W	<b>F.W.</b>	85 26		Yellow mast, black and red banded, black triangle, point up daymark.	
892 A 0637.1	--Rear, 100 meters 011° from front	50° 54.5' N 1° 26.3' W	<b>F.W.</b>	89 27		Yellow mast, black and red banded, black x-shape daymark.	
896 A 0640	--Container berths, SE. corner	50° 54.2' N 1° 26.8' W	<b>2F.G.</b> (vert.)				
912 A 0645	--Transit beacon A	50° 54.7' N 1° 28.0' W	<b>F.R.</b>			Latticed tower, red triangle, point up daymark; 33.	
916 A 0646	---B	50° 54.7' N 1° 28.0' W	<b>F.R.</b>			Latticed tower, red diamond (rhombus) daymark; 39.	
ISLE OF WIGHT:							
924 A 0654	--Cowes, breakwater, head	50° 45.9' N 1° 17.5' W	<b>2F.R.</b> (vert.)		3		
936 A 0652	--Watch House Landing	50° 45.9' N 1° 17.8' W	<b>Iso.W.</b> period 2s	10 3	4	Post.	
942 A 0664	--Wootton	50° 44.5' N 1° 12.1' W	<b>Q.W.</b>		1	N. CARDINAL Black beacon, black topmark, yellow base.	Channel marked by lights.
942.1 A 0665.8	---Car Ferry Terminal	50° 44.0' N 1° 12.9' W	<b>Dir.Oc.W.R.G.</b> period 10s lt. 8s, ec. 2s				G. 220°-223°, W. -224°30', R. -229°12'.
943 A 0762	--Bembridge Harbor	50° 42.5' N 1° 05.0' W	<b>FI.Y.</b> period 2s		1	SPECIAL Yellow piles, yellow "x" topmark.	Tide gauge.
944 A 0760	--St. Helen's Fort	50° 42.3' N 1° 05.0' W	<b>FI.(3)W.</b> period 10s fl. 0.5s, ec. 1s fl. 0.5s, ec. 1s fl. 0.5s, ec. 6.5s	52 16	5	Large round masonry structure.	
PORTSMOUTH:							

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>ENGLAND-SOUTH COAST</b>							
948 A 0688	-Spit Sand Fort, N. side	50° 46.2' N 1° 05.9' W	<b>Fl.R.</b> period 5s fl. 0.7s, ec. 4.3s	59 18	5	Large round masonry structure.	
952 A 0686	-South Parade pier	50° 46.7' N 1° 04.5' W	<b>2F.G.</b> (vert.)	16 5	1	Posts; 10.	One at each corner of pierhead.
956 A 0691	--Southsea Castle, N. corner	50° 46.7' N 1° 05.3' W	<b>Iso.W.</b> period 2s  <b>Dir.W.R.G.</b>	52 16  36 11	11   W. 13 R. 5 G. 5	White masonry tower, black banded; 33.	Visible 337°-71°.  F.G. 351°30'-357°30', Al.W.G. -00° (W. phase increasing with bearing), F.W. -03°, Al.W.R. -05°30' (R. phase increasing with bearing), F.R. -11°30'. Shown 24 hours.
960 A 0692.5	-Fort Blockhouse, 320°	50° 47.4' N 1° 06.7' W	<b>Dir.W.R.G.</b>	20 6	12	Base of mast.	Oc.G. 313°-317°, Fl.G. -321° (G. phase decreasing with bearing), Oc.W. -325°, Fl.R. -329° (R. phase increasing with bearing), Oc.R. -333°. Shown 24 hours. Traffic signals. 2 F.R. (vert.) 20 meters E.
964 A 0696	--Victoria, pier, head	50° 47.3' N 1° 06.4' W	<b>2F.G.</b> (vert.)	16 5		Metal columns.	4 F.R. lights near Clarence Monument.
968 A 0698	--Off Victoria pile	50° 47.3' N 1° 06.5' W	<b>Oc.G.</b> period 15s		1	Green piles.	
972 A 0700	--The Point	50° 47.6' N 1° 06.6' W	<b>Q.G.</b>		2	Piles; 16.	
974 A 0701	--Car Ferry Terminal	50° 47.6' N 1° 06.4' W	<b>2F.R.</b> (vert.)				
980 A 0704	--Railway Landing, Stage, S. head	50° 47.7' N 1° 06.5' W	<b>2F.G.</b> (vert.)	16 5	3	Post; 7.	
984 A 0705	--Common Hard, outer head	50° 47.9' N 1° 06.6' W	<b>Fl.G.</b> period 5s	3 1		Wooden tripod.	
988 A 0707.4	--Fountain Lake jetty, W. head	50° 48.6' N 1° 06.2' W	<b>2F.G.</b> (vert.)				
992 A 0720	--Priddy's Hard, Powder jetty, head	50° 48.6' N 1° 07.5' W	<b>2F.R.</b> (vert.)			Piles.	
996 A 0722.2	--Shell pier, head	50° 48.4' N 1° 07.3' W	<b>2F.R.</b> (vert.)	39 12		Radar mast; 30.	1 meter apart.
998 A 0692.8	--Harbor Entrance	50° 47.9' N 1° 07.0' W	<b>Iso.W.R.G.</b>  <b>2F.R.</b> (vert.)	7 2  26 8	12	Concrete dolphin; 13.	Iso.G. 323°45'-329°45', Fl.G. -332°45' (G. phase decreaseign with bearing), Iso.W. -334°45', Fl.R. -337°45' (R. phase increasing with bearing), Iso.R. -343°45'. Shown 24 hours.  2 meters apart.
1000 A 0726	--Royal Clarence Yard Fort	50° 48.1' N 1° 07.3' W	<b>2F.R.</b> (vert.)				
1004 A 0730	--Fuel jetty, off NE. side	50° 48.0' N 1° 07.0' W	<b>2F.R.</b> (vert.)	26 820 6		Dolphin.	2 meters apart.
1020 A 0734	--Gosport Landing stage, at each end	50° 47.7' N 1° 07.0' W	<b>2F.R.</b> (vert.)	20 6	2	Mast; 16.	2 meters apart. F.R. lights are shown from No. 1 and No. 2 jetties, Haslar Creek.
1024 A 0684	--S. side	50° 46.0' N 1° 04.1' W	<b>Q.R.</b>	20 6	2	Dolphin; 20.	<b>Radar reflector.</b>
1028 A 0750	Horse Sand Fort	50° 45.0' N 1° 04.4' W	<b>Iso.G.</b> period 2s	69 21	5	Large round masonry structure.	

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<b>ENGLAND-SOUTH COAST</b>							
1036 A 0782	Eastney Point, Langstone Harbor	50° 47.2' N 1° 01.7' W	<b>Q.R.</b>	7 2	2	Pile beacon.	F.R. on masts 610 meters and 670 meters WSW. Fl.(2)W. 5s on Roway Wreck Pile 1.2 miles SSW. F.R., Oc.(2)Y. 10s, and F.Y. lights shown 650 meters W. during firing exercises.
1037 A 0782.08	-Outfall jetty, head	50° 47.3' N 1° 01.7' W	<b>2F.R.</b> (vert.)	16 5	5		2 meters apart.
1044 A 0783.4	Chichester Bar	50° 46.0' N 0° 56.4' W	<b>Fl.(2)R.</b> period 10s	33 10	4	PORT (IALAA) Red piles, topmark.	
1046 A 0783.5	West Pole Beacon	50° 45.4' N 0° 56.6' W	<b>Fl.R.</b> period 5s	46 14	7	PORT (IALAA) Red tripodal, topmark.	
1048 A 0780	Nab	50° 40.1' N 0° 57.2' W	<b>Fl.W.</b> period 10s fl. 1s, ec. 9s	56 17	12	Round concrete tower, white square daymark.	AIS (MMSI No 992351136). Helicopter platform. Horn; 2bl. ev. 30s (bl. 2s, si. 2s, bl. 2s, si. 25s).
	RACON		<b>T(-)</b>				(3 & 10 cm).
ISLE OF WIGHT:							
1052 A 0768	-Sandown, pier, head	50° 39.0' N 1° 09.2' W	<b>2F.R.</b> (vert.)	23 7	2		2 meters apart.
1056 A 077	-Shanklin	50° 38.0' N 1° 10.0' W	<b>Fl.R.</b> period 5s fl. 0.3s, ec. 4.7s	10 3	3	PORT (IALAA) Red beacon, topmark.	<b>Radar reflector.</b>
1064 A 0774	-St. Catherine's Point	50° 34.5' N 1° 17.9' W	<b>Fl.W.</b> period 5s fl. 1s, ec. 4s	135 41	25	White octagonal tower, dwelling; 85.	Visible 257°-117°. <b>Dgps station.</b>
			<b>F.R.</b>	115 35	13		Visible 99°-116°.
1066 A 079	The Mixon	50° 42.4' N 0° 46.3' W	<b>Q.(6) + L.Fl.W.</b> period 15s		2	S. CARDINAL Yellow beacon, black topmark, black base.	
1072 A 0794	Bognor Regis, pier, head	50° 46.7' N 0° 40.5' W	<b>2F.R.</b> (vert.)				
LITTLEHAMPTON:							
1076 A 0800	-W. pier, head	50° 47.9' N 0° 32.5' W	<b>Q.R.</b>	23 7	6	Black metal column.	
1078 A 0800.5	-Training Wall, head	50° 47.9' N 0° 32.4' W	<b>Q.G.</b>	16 5	6	STARBOARD (IALAA) Green beacon, topmark.	
1080 A 0801	-E. pier Range, front	50° 48.1' N 0° 32.5' W	<b>F.G.</b>	20 6	7	Black metal column.	Difficult to identify by day.
1084 A 0801.1	--Rear, 64 meters 346° from front	50° 48.1' N 0° 32.5' W	<b>Oc.W.</b> period 7.5s fl. 6s, ec. 1.5s	30 9	10	White concrete tower.	Visible 290°-42°.
1088 A 0804	-Fisherman's quay	50° 48.5' N 0° 32.7' W	<b>Fl.G.</b> period 3s fl. 1s, ec. 2s	13 4	5	Black metal column; 10.	Visible 320°-32°.
1092 A 0808	-Swing bridge, SW. fenders	50° 48.6' N 0° 33.0' W	<b>2F.R.</b> (vert.)	10 3	2		1 meter apart. Traffic signals. Marks upstream and downstream ends.
1096 A 0808.2	--NE. fenders	50° 48.6' N 0° 33.0' W	<b>2F.G.</b> (vert.)	10 3	2		1 meter apart. Marks upstream and downstream ends.
1098 A 0809	-Littlehampton	50° 46.2' N 0° 29.5' W	<b>Fl.(5)Y.</b> period 20s	30 9	5	Piles.	Meteorological station.
1100 A 0810	Worthing, on pier	50° 48.4' N 0° 22.1' W	<b>2F.R.</b> (vert.)	20 6	1	Column; 13.	
SHOREHAM:							

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>ENGLAND-SOUTH COAST</b>							
1104 A 0813	-E. breakwater, head	50° 49.5' N 0° 14.8' W	<b>FI.G.</b> period 5s	23 7	8	Green concrete column; 10.	<b>Siren:</b> 1bl. ev. 120s (bl. 3s, si. 117s)
1108 A 0812	-W. breakwater, head	50° 49.5' N 0° 14.9' W	<b>FI.R.</b> period 5s	23 7	7	Red concrete column; 10.	
1112 A 0814	-On apex of middle pier Range, front	50° 49.7' N 0° 14.9' W	<b>Oc.W.</b> period 5s lt. 3s, ec. 2s	26 8	10	White square building, orange top; 20.	TIDE GAUGE STATION Traffic signals.
1116 A 0814.1	--Rear, within upper entrance, 192 meters 355° from front	50° 49.8' N 0° 14.9' W	<b>FI.W.</b> period 10s fl. 1s, ec. 9s	43 13	10	Grey round masonry tower; 39.	Visible 283°-103° R. lights on radio mast 160 meters N. Traffic signals 800 meters E.
1120 A 0822	Brighton, head of Marine Palace pier (E. pier)	50° 48.9' N 0° 08.2' W	<b>2F.R.</b> (vert.)	33 10	2	Mast, hut; 23.	
1121 A 0826	Brighton Marina, W. breakwater, head	50° 48.5' N 0° 06.4' W	<b>Q.R.</b>	33 10	7	White round structure, red banded.	<b>Horn:</b> 2bl. ev. 30s
1122 A 0825	-E. breakwater, head	50° 48.6' N 0° 06.4' W	<b>FI.(4)W.R.</b> period 20s	52 16	W. 10 R. 8	White column, green banded.	R. 260°-295°, W. -100°. White lights shown inside of breakwater walls.
1123 A 0825.2	-Breakwater, head	50° 48.6' N 0° 06.4' W	<b>Q.G.</b>	26 8	7		
1128 A 0839	GREENWICH LIGHTSHIP	50° 24.5' N 0° 00.1' W	<b>FI.W.</b> period 5s fl. 0.5s, ec. 4.5s		15	Tower, red hull; 39.	F.W. riding light. AIS (MMSI No 992351032). Also shown in reduced visibility. Horn: 1bl. ev. 30s (bl. 3s, si. 27s).
	RACON		<b>M(- -)</b> period 20s				(3 & 10 cm).
	NEWHAVEN:						
1132 A 0832	-E. pier, head	50° 46.8' N 0° 03.6' E	<b>Q.G.</b>	39 12	5	White metal post, green banded; 39.	
1136 A 0830	-Breakwater, head	50° 46.5' N 0° 03.5' E	<b>Iso.W.</b> period 4s	56 17	12	White round concrete tower, red base, marked "port of newhaven vhf ch. 12"; 46.	
1140 A 0840	Beachy Head	50° 44.0' N 0° 14.5' E	<b>FI.(2)W.</b> period 20s fl. 1s, ec. 3s fl. 1s, ec. 15s	102 31	16	White round tower, red banded; 141.	Visible 248°-101°.
1144 A 0843	Royal Sovereign	50° 43.5' N 0° 26.1' E	<b>FI.W.</b> period 20s fl. 1.4s, ec. 18.6s	92 28	12	White tower, red banded, cabin, column.	Shown by day when fog signal is operating. Helicopter platform. <b>Nauphone:</b> 2bl. ev. 30s (bl. 2s, si. 2s, bl. 2s, si. 24s)
1148 A 0846	Eastbourne, pier, head	50° 45.9' N 0° 17.7' E	<b>2F.R.</b> (vert.)	26 8	2	Metal column; 10.	
1150 A 0848	Sovereign Harbor Marina	50° 47.2' N 0° 19.8' E	<b>FI.(3)W.</b> period 15s	39 12	7	Concrete tower.	
1152 A 0848.5	-258°	50° 47.2' N 0° 19.8' E	<b>Dir.FI.W.R.G.</b> period 5s	13 4	1		G. 255°-259°, W. -262°, R. -265°.
1153 A 0848.1	-S. breakwater, head	50° 47.3' N 0° 20.1' E	<b>FI.(4)R.</b> period 12s	10 3	6		
1154 A 0848.2	-N. breakwater, head	50° 47.3' N 0° 20.1' E	<b>FI.G.</b> period 5s	10 3	6		
1160	CS2 Buoy	50° 39.0' N 0° 32.7' E	<b>FI.Y.</b> period 5s			SPECIAL Yellow column, yellow "x" topmark.	Whistle.
	HASTINGS:						
1164 A 0858	-Beach Range, front	50° 51.3' N 0° 35.4' E	<b>F.R.</b>	46 14	4	White metal column; 26.	

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>ENGLAND-SOUTH COAST</b>							
1168 A 0858.1	--Rear, 357 meters 356°18' from front	50° 51.5' N 0° 35.4' E	<b>F.R.</b>	180 55	4	White pentagonal tower; 20.	
1172 A 0856	-W. breakwater, head	50° 51.2' N 0° 35.6' E	<b>Fl.R.</b> period 2.5s	16 5	4	Mast; 13.	
1176 A 0854	-Hastings Pier, head	50° 51.1' N 0° 34.4' E	<b>Q.R.</b> period 10s	0 0	2	Metal column.	
1188	-Fairway Buoy	50° 54.0' N 0° 48.0' E	<b>L.FI.W.</b> period 10s fl. 2s, ec. 8s			SAFE WATER White buoy, topmark, red vertical stripes.	<b>Radar reflector.</b>
1192 A 0866	-E. bank No 3	50° 55.9' N 0° 46.3' E	<b>Q.G.</b>	10 3	2	STARBOARD (IALAA) Green tripod, topmark; 10.	
1196 A 0867	-W. bank No 6	50° 55.7' N 0° 46.5' E	<b>Q.R.</b>	10 3	2	Red wooden piles; 10.	Lights shown upstream.
1200 A 0866.3	--No 7	50° 56.0' N 0° 46.3' E	<b>Q.G.</b>	10 3	2	Wooden piles, green triangle, point up daymark.	
1204 A 0866.5	--No 9	50° 56.1' N 0° 46.2' E	<b>Q.G.</b>	10 3	2	Wooden piles, green triangle, point up daymark.	
1208 A 0866.7	--No 11	50° 56.2' N 0° 46.0' E	<b>Q.G.</b>	10 3	6	Wooden structure, green triangle, point up daymark; 10.	Traffic signals.
1212 A 0864.5	-E. pier No 1, head	50° 55.8' N 0° 46.5' E	<b>Q.(9)W.</b> period 15s	23 7	5	Metal structure, green triangle, point up daymark; 16.	<b>Horn:</b> 1bl. ev. 7s (bl. 1s, si. 29s)
1216 A 0864	-West Groyne, head	50° 55.6' N 0° 46.6' E	<b>L.FI.R.</b> period 7s	23 7	6	Wooden tripod; 30.	<b>AIS</b> (MMSI No 992351156).
DOVER STRAIT:							
1220 A 0876	-Dungeness	50° 54.8' N 0° 58.5' E	<b>FI.W.</b> period 10s fl. 0.1s, ec. 9.9s	131 40	21	Black round tower, white bands, lantern; 141.	Visible 120°-78°. Partially obscured -120°. Flood light. Shown 24 hours. Horn: 1bl. ev. 30s (bl. 3s, si. 27s).
<b>F.</b>							
1224 A 0897.5	-VARNE LIGHTSHIP	51° 01.2' N 1° 24.0' E	<b>FI.R.</b> period 5s fl. 0.5s, ec. 4.5s		15	Red hull, light tower amidships; 39.	<b>AIS</b> (MMSI No 992351038). Also shown in reduced visibility. Horn: 1bl. ev. 30s (bl. 2s, si. 28s).
RACON <b>T(-)</b>							
1228 A 0892	--Breakwater, head	51° 04.6' N 1° 11.7' E	<b>Fl.(2)W.</b> period 10s fl. 0.5s, ec. 2s fl. 0.5s, ec. 7s	46 14	22	Tower; 43.	Visible 210°-90°.
1232 A 0896	--E. pier (Outer harbor)	51° 04.7' N 1° 11.5' E	<b>Q.G.</b>			Metal column; 7.	
1234 A 0898	-Shakespeare Cliff, E. head	51° 06.3' N 1° 16.9' E	<b>FI.R.</b> period 5s fl. 0.3s, ec. 4.7s				
1234.1 A 0898.2	-W. head	51° 06.1' N 1° 16.0' E	<b>FI.R.</b> period 5s fl. 0.3s, ec. 4.7s				
1236 A 0900	--Admiralty pier	51° 06.7' N 1° 19.7' E	<b>FI.W.</b> period 7.5s fl. 1s, ec. 6.5s	69 21	20	White tower; 72.	Visible 96°-90°. Obscured in the Downs by South Foreland inshore of 226°. Traffic signals. Horn: 1 bl. ev. 10s (bl. 2s, si. 8s).
<b>3FI.</b> period 7.5s							
1248 A 0912	--S. pier, near head of N. side	51° 06.9' N 1° 18.9' E	<b>2F.R.</b> (vert.)	16 5		Beacon; 7.	2 meters apart.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>ENGLAND-SOUTH COAST</b>							
1252 A 0914	--N. pier, near head	51° 07.0' N 1° 18.9' E	<b>3F.G.</b> (vert.)	16 5	3	Beacon; 7.	
1256 A 0906	--Train Ferry dock, jetty, head	51° 06.9' N 1° 19.0' E	<b>Q.R.</b>	23 7		Post; 10.	
1260 A 0915	--N. pier, spur	51° 07.0' N 1° 18.8' E	<b>Oc.G.</b>	10 3	2	Post; 7.	
1268 A 0902	--Prince of Wales pier, head	51° 06.8' N 1° 19.4' E	<b>V.Q.G.</b>	46 14	4	White tower; 46.	
1272 A 0924	--S. breakwater, W. head	51° 06.8' N 1° 19.8' E	<b>Oc.R.</b> period 30s lt. 27s, ec. 3s	69 21	18	White tower; 69.	
1276 A 0926	--Knuckle of detached mole	51° 07.0' N 1° 20.5' E	<b>Fl.(4)W.R.</b> period 10s fl. 0.8s, ec. 1.2s fl. 0.8s, ec. 1.2s fl. 0.8s, ec. 1.2s fl. 0.8s, ec. 3.2s	49 15	<b>W. 15</b> R. 13	White tower; 52.	R. 59°-239°, W. -59°.
1284 A 0935	--The Camber, Pier A, W. jetty, head	51° 07.5' N 1° 20.4' E	<b>Q.R.</b>	26 8		Mast.	Occasional. Intensified in fog. <b>Siren:</b> 2bl. ev. 10s
1304 A 0928	---Detached mole, N. head	51° 07.2' N 1° 20.6' E	<b>Fl.R.</b> period 2.5s fl. 1s, ec. 1.5s	36 11	5		Fl.(2) W. 10s, range 1nM, shown in fog. Intensified strobe light shown in reduced visibility.
1305 A 0929	---Eastern Arm, head	51° 07.3' N 1° 20.6' E	<b>Fl.G.</b> period 5s	39 12	5		Q.W. Shown in fog. Traffic signals. Intensified strobe light shown in reduced visibility. <b>Radar reflector.</b> Horn: 2bl. ev. 30s (bl. 2s, si. 2s, bl. 2s, si. 24s)
1312 A 0950	-Deal pier, head	51° 13.4' N 1° 24.5' E	<b>2F.R.</b> (vert.)	23 7	2	Lattice metal tower.	2 meters apart.
1316	-CS4 Buoy	51° 08.5' N 1° 34.0' E	<b>Fl.(4)Y.</b> period 15s			SPECIAL Yellow column, yellow "x" topmark.	Marks Area to be Avoided. Whistle.
<b>ENGLAND-EAST COAST</b>							
1324 A 0984	--EAST GOODWIN LIGHTFLOAT	51° 13.0' N 1° 36.3' E	<b>Fl.W.</b> period 15s fl. 0.2s, ec. 14.8s		15	Red hull, light tower amidships; 39.	AIS (MMSI No 992351035). Shown by day when fog signal is operating. Horn: 1bl. ev. 30s (bl. 3s, si. 27s).
	RACON		<b>T(-)</b>				(3 & 10 cm).
1326	--MPC RACON	51° 06.1' N 1° 38.2' E	<b>O(- - -)</b>		10		(3 & 10 cm).
1329	--NE. Goodwin Buoy	51° 20.3' N 1° 34.3' E	<b>Q.(3)W.</b> period 10s			E. CARDINAL Black beacon, pillar, yellow banded, topmark.	Whistle.
	RACON		<b>M(- -)</b>		10		(3 & 10 cm).
1330	--Outer Tongue Buoy	51° 30.7' N 1° 26.5' E	<b>L.Fl.W.</b> period 10s			SAFE WATER Red and white pillar, topmark.	Whistle.
	RACON		<b>T(-)</b>		10		
	FALLS BANK:						
1332	-Inter Bank Buoy	51° 16.5' N 1° 52.3' E	<b>Fl.Y.</b> period 5s			SPECIAL Yellow pillar, "x" topmark.	
	RACON		<b>M(- -)</b>		10		(3 & 10 cm).

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>ENGLAND-EAST COAST</b>							
1336 A 0992	-FOXTROT 3 LIGHTSHIP	51° 23.8' N 2° 00.6' E	<b>FI.W.</b> period 10s fl. 0.2s, ec. 9.8s		15	Red hull, light tower amidships; 39.	AIS (MMSI No 992351033). Horn: 1bl. ev. 10s (bl. 1s, si. 9s).
	RACON		<b>T(-)</b>				(3 & 10 cm).
	RAMSGATE:						
1348 A 0957.1	-W. pier, head	51° 19.7' N 1° 25.3' E	<b>F.R.</b>	39 12	7	Round granite tower; 36.	
1349 A 0959	-N. breakwater, head	51° 19.6' N 1° 25.5' E	<b>Q.G.</b>	33 10	5	Green column, platform.	
1350 A 0959.5	-S. breakwater, head	51° 19.4' N 1° 25.4' E	<b>V.Q.R.</b>	33 10	5	Red column, platform.	
1352 A 0958	-W. ferry terminal Range, front	51° 19.5' N 1° 24.8' E	<b>Dir.Oc.W.R.G.</b> period 10s lt. 8s, ec. 2s	33 10	5	White mast, black triangle, point up daymark orange stripe.	G. 259°-269°, W. -271°, R. - 281°.
1356 A 0958.1	--Rear, 493 meters 270° from front	51° 19.5' N 1° 24.4' E	<b>Oc.W.</b> period 5s lt. 3s, ec. 2s	56 17	5	White mast, black triangle, point down daymark orange stripe.	Visible 263°-278°. V.Q.G. and Q.R. beacons mark channel to SW.
1360 A 0964	Broadstairs pier, SE. head	51° 21.5' N 1° 26.7' E	<b>2F.R.</b> (vert.)	23 7	4	Metal column; 16.	
1364 A 0966	North Foreland	51° 22.5' N 1° 26.7' E	<b>FI.(5)W.R.</b> period 20s fl. 0.5s, ec. 1.1s fl. 0.5s, ec. 1.1s fl. 0.5s, ec. 1.1s fl. 0.5s, ec. 1.1s fl. 0.5s, ec. 13.1s	187 57	<b>W. 19</b> <b>R. 16</b> <b>R. 15</b>	White octagonal tower; 85.	<b>AIS</b> (MMSI No 992351020) W. 94°-150°, R. -181° (16M), R. -200° (15M), W. -11°. Dgps station.
1368 A 1971	Tide gauge	51° 23.7' N 1° 22.7' E	<b>Q.W.</b>		3	N. CARDINAL Black beacon, black topmark, yellow base.	Tide gauge.
1372 A 1972	-Stone pier, head	51° 23.5' N 1° 22.7' E	<b>F.R.</b>	59 18	4	Masonry tower; 66.	
1376 A 1976	Herne Bay	51° 22.9' N 1° 06.9' E	<b>Q.W.</b>	59 18	4	Metal mast, concrete landing stage; 49.	Pier head isolated from shore.
1378 A 1977	Kentish Flats	51° 26.8' N 1° 04.7' E	<b>FI.Y.</b> period 5s	43 13	5	Yellow framework mast, pile.	One on each side. Radar reflector. Horn: Mo.(U ) ev. 30s.
			<b>F.</b>				
			<b>F.R.</b>	253 77			

#### ENGLAND-THAMES RIVER APPROACHES

1384 A 1979	Whitstable, W. quay	51° 21.9' N 1° 01.5' E	<b>FI.G.</b> period 5s	7 2		Dolphin.	
1400 A 2009.7	Isle of Grain	51° 26.7' N 0° 43.4' E	<b>Q.W.</b>	66 20	13	Red tower, red and white diamond (rhombus) daymark; 66.	
1404 A 1996	Sheerness, Garrison Point, RoRo berth No 10	51° 26.9' N 0° 44.8' E	<b>2F.R.</b> (vert.)			Dolphin.	Reserve fog signal 310 meters SW. R. light on radio mast 340 meters SSW. <b>Horn:</b> 3bl. ev. 30s (bl. 2s, si. 3s, bl. 2s, si. 3s, bl. 2s, si. 18s)
1413	Sea Reach Buoy 1	51° 29.4' N 0° 52.7' E	<b>FI.Y.</b> period 2.5s			SPECIAL Yellow pillar, "x" topmark.	
	RACON		<b>T(-)</b> period 90s		10		(3 cm).
1417	Sea Reach Buoy 7	51° 30.1' N 0° 37.2' E	<b>FI.Y.</b> period 2.5s			SPECIAL Yellow pillar, "x" topmark.	

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>ENGLAND-THAMES RIVER APPROACHES</b>							
	RACON		T(-) period 90s		10		(3 cm).
<b>ENGLAND-THAMES RIVER APPROACHES FROM NORTHEASTWARD</b>							
1420 A 2170	SUNK CENTRE LIGHTFLOAT	51° 50.1' N 1° 46.0' E	FI.(2)W. period 20s fl. 0.3s, ec. 4.8s fl. 0.3s, ec. 14.6s		16	Red hull, light tower amidships; 39.	AIS (MMSI No 992351034). Shown by day when fog signal is operating. Horn: 2bl. ev. 60s (bl. 2s, si. 2s, bl. 2s, si. 54s).
	RACON		C(- · - ·)				
1421 A 2172	SUNK INNER LIGHTFLOAT	51° 51.0' N 1° 34.9' E	FI.(5)W. period 15s		12	Red hull, light tower amidships.	AIS (MMSI No 992351027). Horn: 1bl. ev. 30s (bl. 2s, si. 28s).
	RACON		T(-)				(3 & 10 cm).
1422	Buoy Barrow No 3	51° 42.0' N 1° 20.3' E	Q.(3)W. period 10s			E. CARDINAL Black pillar, yellow band, black base.	Bell.
	RACON		M(- -)		10		(3 & 10 cm).
1424 A 1956	Long Sand Bank, meteorological mast	51° 35.6' N 1° 23.1' E	Mo.(U)W. period 15s	39 12	10	Yellow metal framework tower.	Obstruction. Radar reflector. Horn: Mo.(U) ev. 30s.
			F.				
<b>ENGLAND-EAST COAST</b>							
1432 A 2184	Brightlingsea Range, front	51° 48.4' N 1° 01.3' E	F.R.	23 7	4	Post, white square daymark red stripe.	Visible 20°-80°.
1436 A 2184.1	-Rear, 50 meters 041° from front	51° 48.4' N 1° 01.3' E	F.R.	33 10	4	Post, white square daymark red stripe.	
1440 A 2187	Bateman tower	51° 48.3' N 1° 00.8' E	FI.(3)W. period 20s	39 12			F.R. (occasional) shown on W. Bank of River Colne and 7 masts between 1.5 and 3 miles WNW. when firing in progress.
1444 A 2192	Clacton-on-Sea, elbow of berthing arm	51° 47.0' N 1° 09.5' E	2F.G.(vert.)	16 5	4	Mast.	Shown at E. and W. ends and center of berthing arm. <b>Reed:</b> 2bl. ev. 120s
1448 A 2194	Walton on the Naze pier, head	51° 50.6' N 1° 16.8' E	2F.G.(vert.)	16 5	2	White post; 7.	
1451 A 2196.1	Cork Sand	51° 55.5' N 1° 25.4' E	V.Q.W.		2	N. CARDINAL Black beacon, black topmark, yellow base.	
HARWICH HARBOR:							
1468 A 2203.2	--Dock entrance, N. head	51° 57.0' N 1° 18.8' E	2F.G.(vert.)				
1470 A 2217.4	--RoRo berth No 4	51° 56.9' N 1° 14.8' E	2F.R.(vert.)	16 5	2	Post.	1 meter apart.
1471 A 2217.42	--W	51° 56.9' N 1° 14.7' E	2F.R.(vert.)	16 5	2	Post.	1 meter apart.
1484 A 2204	--Navyard wharf, SE. corner	51° 56.9' N 1° 17.5' E	2F.R.(vert.)	36 11			2 F.R. (vert.) mark Groyne head 65 meters SSE.
1488 A 2204.15	--NE. corner	51° 56.9' N 1° 17.5' E	2F.R.(vert.)				

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>ENGLAND-EAST COAST</b>							
1492 A 2204.2	--N. corner	51° 57.0' N 1° 17.4' E	2F.R.(vert.)	36 11			2 meters apart.
1500 A 2204.62	--N. side pontoon, W. head	51° 57.0' N 1° 17.3' E	2F.R.(vert.)	16 5			
1504 A 2206	--Town pier	51° 56.9' N 1° 17.2' E	2F.R.(vert.)	20 6		Tripod.	
1508 A 2208	--Trinity House pier	51° 56.9' N 1° 17.0' E	2F.R.(vert.)	20 6	1	Column; 23.	2 meters apart.
1512.5 A 2213.3	--Shotley Marina Entrance, E. side	51° 57.3' N 1° 16.7' E	FI.(4)G. period 15s			STARBOARD (IALA A) Green piles, topmark; 10.	
1512.6 A 2213.35	--W. side	51° 57.3' N 1° 16.7' E	V.Q.(3)W. period 5s			E. CARDINAL Black piles, black topmark, yellow banded, black base; 10.	
1513 A 2213.5	--Shotley Marina Lock, E. side	51° 57.5' N 1° 16.6' E	F.Y.	10 3	1	Orange structure; 3.	Directional 339°30'. Uses moire effect pattern to indicate dredged channel.
1516 A 2222	--Ganges pier	51° 57.2' N 1° 16.2' E	2F.G.(vert.)	13 4	1	Green wooden post; 7.	
1520 A 2222.5	--Erwarton Ness	51° 57.1' N 1° 13.2' E	Q.(6) + L.FI.W. period 15s		4	S. CARDINAL Yellow beacon, black topmark, black base.	
1524 A 2222.6	--No 2	51° 57.0' N 1° 10.2' E	Q.W.			N. CARDINAL Black beacon, black topmark, yellow base.	
1532 A 2223	--Smith Shoal, No 6	51° 57.0' N 1° 07.9' E	FI.(2)R. period 5s		2	Black beacon, red square daymark.	
1536 A 2214	--Parkeston, quay, E	51° 56.9' N 1° 15.7' E	2F.R.(vert.)		2		
1546	Harwich Channel Buoy No 1	51° 55.9' N 1° 26.8' E	FI.Y. period 2.5s			SPECIAL Yellow conical buoy, "x" topmark.	
	RACON		T(-)		10		(3 & 10 cm).
1554	S. Galloper Buoy	51° 43.9' N 1° 56.5' E	Q.(6) + L.FI.W. period 15s			S. CARDINAL Black pillar, yellow top, topmark.	Whistle.
	RACON		T(-)		10		(3 & 10 cm).
1556	N. Shipwash Buoy	52° 01.7' N 1° 38.4' E	Q.W.			N. CARDINAL Yellow pillar, black top, topmark.	Whistle.
	RACON		M(- -)		10		(3 & 10 cm).
1560	Outer Gabbard RACON	51° 57.8' N 2° 04.3' E	O(- - -)		10		(3 & 10 cm).
SIZEWELL:							
1568 A 2265	-S. Pipeline, head	52° 12.5' N 1° 37.5' E	FI.R. period 10s fl. 1s, ec. 9s	39 12	3	Column, metal platform; 16.	
1572 A 2265.2	-N. Pipeline, head	52° 12.7' N 1° 37.8' E	FI.(2)R. period 7.5s fl. 0.3s, ec. 0.7s fl. 0.3s, ec. 6.2s	39 12	3	Column, metal platform; 16.	
1573 A 2265.3	-Cooling water intake	52° 12.9' N 1° 38.0' E	FI.R. period 5s fl. 0.3s, ec. 4.7s	16 5	3	Piles; 16.	
1573.1 A 2265.35	--Outfall	52° 12.9' N 1° 37.6' E	FI.R. period 5s fl. 0.3s, ec. 4.7s	16 5	3	Piles; 16.	
SOUTHWOLD:							

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>ENGLAND-EAST COAST</b>							
1576 A 2273	-Harbor, N. pier, head	52° 18.8' N 1° 40.5' E	<b>FI.G.</b> period 1.5s	23 7	5	Metal column; 10.	3 F.R. (vert.) shown when harbor is closed.
1580 A 2273.3	--Knuckle	52° 18.8' N 1° 40.5' E	<b>2F.G.</b> (vert.)		3		2 meters apart.
1584 A 2274	--S. pier, head	52° 18.7' N 1° 40.5' E	<b>Q.R.</b>	13 4	3		
1588 A 2272	-Southwold	52° 19.6' N 1° 40.9' E	<b>FI.W.</b> period 10s fl. 0.31s, ec. 9.69s	121 37	<b>24</b>	White round tower; 102.	<b>AIS</b> (MMSI No 992351019).Visible 204°-32°30'. Shown 24 hours.
LOWESTOFT:							
1600 A 2286	-Outer harbor, N. pier, head	52° 28.3' N 1° 45.4' E	<b>Oc.G.</b> period 5s lt. 4s, ec. 1s	39 12	8	White tower, small pavilion; 30.	Flood light.
1604 A 2284	--S. pier, head	52° 28.3' N 1° 45.4' E	<b>Oc.R.</b> period 5s lt. 4s, ec. 1s	39 12	6	White tower, small pavilion; 30.	PILOT STATION. Traffic signals. Flood light. <b>Horn:</b> 4bl. ev. 60s
1608 A 2290	-Inner harbor, N. pier, head	52° 28.3' N 1° 45.3' E	<b>2F.Y.</b> (vert.)	20 6	1	Metal column; 13.	
1612 A 2288	--S. pier, head	52° 28.3' N 1° 45.3' E	<b>2F.R.</b> (vert.)	26 8	1	Metal column; 13.	Traffic signals only visible from inside Yacht Basin. 3 F.R. (vert.) indicate vessels may not proceed. 3 F.G.W.G. (vert.) indicate vessels may proceed with instructions.
1614 A 2290.8	-Lake Lothing	52° 28.4' N 1° 43.3' E	<b>2F.R.</b> (vert.)				
1616 A 2292	-Sladdens Pier, new jetty, head	52° 28.3' N 1° 45.3' E	<b>2F.G.</b> (vert.)				
1620 A 2280	-Lowestoft	52° 29.2' N 1° 45.4' E	<b>FI.W.</b> period 15s fl. 0.2s, ec. 14.8s	121 37	<b>23</b>	White tower; 52.	Partially obscured 347°-19°. Shown 24 hours.
GREAT YARMOUTH:							
1624 A 2304	--S. pier, head	52° 34.3' N 1° 44.3' E	<b>FI.R.</b> period 3s fl. 1s, ec. 2s	36 11	11	Building.	Visible 235°-340°.
1628 A 2308	--N. pier, near head	52° 34.4' N 1° 44.4' E	<b>Q.G.</b>	26 8	6	Green metal column, ladder; 23.	Visible 258°-356°.
1640 A 2320	-Wellington Pier, head	52° 35.9' N 1° 44.3' E	<b>2F.R.</b> (vert.)	26 8	3	Post, shelter; 13.	
1648 A 2324	-Britannia Pier, head	52° 36.5' N 1° 44.4' E	<b>2F.R.</b> (vert.)	36 11	4	White metal column; 10.	
1650 A 2325	-North Scroby	52° 40.1' N 1° 47.1' E	<b>FI.(5)Y.</b> period 20s	33 10	5	Platform. secondary structure: mast; 164.	On N. and S. side.
1652 A 2318.2	-Marks outfall beacon	52° 35.1' N 1° 44.4' E	<b>FI.R.</b> period 6s	16 5	2	Red beacon.	
1656	Cross Sand Buoy	52° 37.0' N 1° 59.3' E	<b>L.FI.W.</b> period 10s		5	SAFE WATER Red and white pillar, topmark.	
	RACON		<b>T(-)</b>		10		(3 & 10 cm).
1664	Smiths Knoll Buoy	52° 43.5' N 2° 18.0' E	<b>Q.(6) + L.FI.W.</b> period 15s			S. CARDINAL Black pillar, yellow top, topmark.	
	RACON		<b>T(-)</b>		10		(3 cm).
1668 A 2336	Happisburgh	52° 49.2' N 1° 32.2' E	<b>FI.(3)W.</b> period 30s fl. 1s, ec. 1.5s fl. 1s, ec. 1.5s fl. 1s, ec. 24s	135 41	14	White tower, three red bands; 85.	

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<b>ENGLAND-EAST COAST</b>							
1670	North Haisbro Buoy	53° 00.2' N 1° 32.4' E	<b>Q.W.</b>			N. CARDINAL Yellow pillar, black top, topmark.	Bell.
	RACON		<b>T(-)</b>		10		(3 & 10 cm).
1676 A 2342	Cromer	52° 55.5' N 1° 19.0' E	<b>FI.W.</b> period 5s fl. 0.1s, ec. 4.9s	276 84	21	White octagonal tower; 59.	Visible 102°-307°. AIS (MMSI No 992351015). Shown 24 hours.
	RACON		<b>O(- - -)</b>		25		(3 & 10 cm).
1680 A 2344	-Lifeboat house	52° 56.0' N 1° 18.2' E	<b>2F.R.</b> (vert.)	26 8	5	Grey and white wooden building; 39.	
1684	Dudgeon RACON	53° 16.6' N 1° 17.0' E	<b>O(- - -)</b>		10		(3 & 10 cm).
1688 A 2346	Sheringham	52° 56.7' N 1° 12.8' E	<b>F.R.</b>	39 12	3	Red post; 7.	Fishing, shown until 2030.
1692	North Well Buoy	53° 03.0' N 0° 28.0' E	<b>L.FI.W.</b> period 10s			SAFE WATER White column, topmark, red vertical stripes.	Whistle.
	RACON		<b>T(-)</b>		10		(3 & 10 cm).
1720 A 2379	Kings Lynn Approach, Trial Bank Beacon	52° 50.5' N 0° 14.7' E	<b>FI.(2)W.</b> period 5s	43 13	3	White mast; 10.	
	HOLBEACH RANGE:						
1724 A 2391	-NW. head	52° 53.0' N 0° 06.7' E	<b>FI.R.</b> period 5s fl. 0.5s, ec. 4.5s			Flagstaff.	F.R. when firing in progress. Occasional.
1728 A 2390	-SE. head	52° 51.0' N 0° 10.7' E	<b>FI.Y.</b> period 5s fl. 0.5s, ec. 4.5s			Flagstaff.	
1732 A 2393	-Old South Middle, No 4	52° 55.1' N 0° 10.7' E	<b>FI.Y.</b> period 10s			Beacon, triangle, point up daymark.	
1736 A 2394	--No 3	52° 54.9' N 0° 09.9' E	<b>FI.Y.</b> period 5s			Beacon, triangle, point up daymark.	
	WITHAM RIVER ENTRANCE:						
1740 A 2398	-Tabs, head	52° 56.0' N 0° 05.0' E	<b>Q.W.</b>	13 4	1	White mast, red square daymark; 33.	Tide gauge. <b>Radar reflector.</b>
1744 A 2397	-Beacon, N. side of entrance, Dollypeg	52° 56.1' N 0° 05.1' E	<b>Q.G.</b>	13 4	1	Beacon, black triangle, point up daymark.	<b>Radar reflector.</b>
1748 A 2400	-New Cut Range, front	52° 55.8' N 0° 04.5' E	<b>F.W.</b>	16 5	5	Post; 7.	
1752 A 2400.1	--Rear, 90 meters 240° from front	52° 55.8' N 0° 04.4' E	<b>F.W.</b>	26 8	5	Post; 7.	From Scalp Sand to Boston the river is marked by F.G. and F.R. range lights.
1764 A 7560.1	Dowsing Platform B1D	53° 33.7' N 0° 52.7' E	<b>Mo.(U)W.</b> period 15s		15	Platform.	Reserve light range 10M. AIS (MMSI No 992351344). Horn: Mo.(U ) ev. 30s (bl. 1s, si. 1s, bl. 1s, si. 1s, bl. 2s, si. 24s).
	Dowsing Platform B1D.		<b>4 Mo.(U)R.</b> period 15s				
1765 A 2352	Race Bank Offshore Wind Farm, meteorological mast	53° 18.8' N 0° 44.9' E	<b>Mo.(U)W.</b> period 15s	39 12	10	Yellow mast.	<b>Radar reflector.</b> Horn: Mo.(U ) ev. 30s
1766 A 2421	Ingoldmells Point	53° 12.8' N 0° 25.9' E	<b>FI.Y.</b> period 5s		5	Wind turbine; 253.	In wind farm of 27 turbines, some marked by red air obstruction lights. Radar reflector. Horn: 1bl. ev. 10s. <b>Radar reflector.</b>

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>ENGLAND-EAST COAST</b>							
			<b>FR.</b>				Aviation light. <b>Radar reflector.</b>
1767 A 2351.5	Docking Shoal Offshore Wind Farm, meteorological mast	53° 09.5' N 0° 38.9' E	<b>Mo.(U)W.</b> period 15s	39 12	10	Yellow mast.	<b>Radar reflector.</b> Horn: Mo.(U) ev. 30s
1768 A 2578	Inner Well Bank Rough, Huntsea Offshore Wind Farm, meteorological mast	53° 53.2' N 1° 59.5' E	<b>Mo.(U)W.</b> period 15s	72 22	15	Mast; 348.	Horn: Mo.(U) ev. 30s.
			<b>FR.</b>				
1769 A 7562.5	Anglia Field Platform A 48/ 19-B	53° 22.0' N 1° 39.2' E	<b>Mo.(U)W.</b> period 15s		15	Platform.	Reserve light range 10M. Horn: Mo.(U) ev. 30s (bl. 1s, si. 1s, bl. 1s, si. 1s, bl. 2s, si. 24s).
	Anglia Field Platform A 48/ 19-B.		<b>4 Mo.(U)R.</b> period 15s				
	RACON		<b>Q(- - -)</b>		15		(3 & 10 cm).
1771 A 7576.97	Markham Field Platform J6- A	53° 49.0' N 2° 57.0' E	<b>Mo.(U)W.</b> period 15s		15	Platform.	Horn: Mo.(U) ev. 30s.
			<b>2FR.</b>				
	RACON		<b>M(- -)</b>				Visible 180°-0°.(3 & 10 cm).
1771.2	Inger Nielson	54° 30.9' N 2° 36.3' E	<b>V.Q.(3)</b> period 5s			E. CARDINAL Black pillar, yellow banded, topmark.	
	RACON		<b>D(- • •)</b> period 30s		10		
<b>ENGLAND-RIVER HUMBER APPROACHES</b>							
1771.5	Outer Sand Buoy	53° 36.4' N 0° 29.6' E	<b>Q.(3)W.</b> period 10s			E. CARDINAL Buoy, black top, yellow band, black base.	
	RACON		<b>O(- - -)</b> period 30s		10		(3 and 10cm). and.(3 cm).
1771.7	Humber RACON	53° 39.1' N 0° 20.0' E	<b>T(-)</b>		7		(3 & 10 cm).
1772	Spurn RACON	53° 33.5' N 0° 14.3' E	<b>M(- -)</b>		5		(3 & 10 cm).
1780 A 2426	-Spurn Point beacon	53° 34.4' N 0° 06.5' E	<b>FI.G.</b> period 3s fl. 0.5s, ec. 2.5s	36 11	5	Metal tripod, green triangle, point up daymark.	
1784 A 2427.2	-Pilot jetty	53° 34.7' N 0° 06.5' E	<b>2FG.(vert.)</b>				At each end.
1788 A 2425	Tetney Buoy SBM	53° 32.3' N 0° 06.8' E	<b>2V.Q.Y.(vert.)</b>			Yellow monobuoy.	Q.Y. on floating hose extending up to 290 meters from buoy. <b>Horn:</b> Mo.(A) ev. 60s
1796	HAWKE LIGHTFLOAT	53° 34.5' N 0° 05.6' E	<b>V.Q.(3)W.</b> period 5s	16 5	5	E. CARDINAL Yellow hull with superstructure, yellow banded, topmark.	
1806	CLEE NESS NO 4A LIGHTFLOAT	53° 35.0' N 0° 01.8' E	<b>FI.(2)R.</b> period 10s			Red hull.	
1816	MIDDLE NO 7 LIGHTFLOAT	53° 35.8' N 0° 01.4' W	<b>V.Q.(6)+L.FI.W.</b> period 10s	16 5	5	S. CARDINAL Yellow top, black bottom, black topmark.	<b>Horn:</b> 1bl. ev. 20s
1820	LOWER BURCOM NO 6 LIGHTFLOAT	53° 35.4' N 0° 01.6' W	<b>FI.R.</b> period 4s	16 5	4	PORT (IALAA) Red, name in white on sides.	

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>ENGLAND-RIVER HUMBER APPROACHES</b>							
GRIMSBY:							
1824 A 2450	-Sewer outfall	53° 34.9' N 0° 03.3' W	<b>2F.R.</b> (vert.)	16 5	5	PORT (IALAA) Red pile, dolphin.	2 meters apart.
1828 A 2452	-Fish dock, E. pier	53° 35.0' N 0° 03.8' W	<b>Iso.R.</b> period 4s	33 10	1	Brown metal column; 23.	Sounded when vessels are entering docks. <b>Horn:</b> 1bl. ev. 20s (bl. 5s, si. 15s)
1832 A 2454	--Middle pier, head	53° 35.0' N 0° 04.0' W	<b>Iso.G.</b> period 4s	33 10	8	Brown wooden mast; 23.	Traffic Signals 60 meters S.
1836 A 2456	--W. pier	53° 35.0' N 0° 04.0' W	<b>Fl.Y.</b> period 2.5s	33 10	8	Brown wooden mast; 23.	
1840 A 2460	-Royal Dock, E. pier, head	53° 35.1' N 0° 04.0' W	<b>Fl.(2)R.</b> period 6s fl. 1s, ec. 1s fl. 1s, ec. 3s	33 10	8	Dolphin; 23.	
1844 A 2472	--W. pier, head	53° 35.1' N 0° 04.0' W	<b>Oc.G.</b> period 2s lt. 1.5s, ec. 0.5s	23 7	2	Brown metal column; 23.	<b>Bell:</b> 1 strokes ev. 10s
1848 A 2474	--NW. elbow	53° 35.1' N 0° 04.2' W	<b>Oc.G.</b> period 2s lt. 1.5s, ec. 0.5s	39 12	2	Brown metal column; 23.	F.R. lights on chimney 1.2 miles W.
1856 A 2479	Outfall pipe	53° 36.0' N 0° 07.5' W	<b>2F.R.</b> (vert.)	13 4		Red dolphin, square daymark.	
1864 A 2481	Stallingborough, jetty	53° 37.1' N 0° 09.4' W	<b>2F.R.</b> (vert.)	23 7		Metal column; 16.	2 meters apart.
<b>ENGLAND-RIVER HUMBER</b>							
1868 A 2483	Outfall pipe	53° 37.4' N 0° 09.9' W	<b>2F.R.</b> (vert.)	13 4		Red beacon, square daymark.	2 meters apart.
1870	NO 10A LIGHTFLOAT	53° 37.5' N 0° 08.6' W	<b>Fl.(2)R.</b> period 6s	16 5	4	Red hull.	
IMMINGHAM:							
1872 A 2484	-Humber oil terminal, SE., head	53° 37.7' N 0° 09.4' W	<b>2Q.R.</b> (vert.)	26 8	5	Dolphin.	Synchronized traffic signals on tower B 410 meters WNW. <b>Horn:</b> Mo.(N) ev. 30s (bl. 6s, si. 2s, bl. 2s, si. 20s)
1876 A 2484.2	--Berth No 2, SE., head	53° 37.8' N 0° 09.8' W	<b>2F.R.</b> (vert.)	16 5	2		
1880 A 2484.4	--Berth No 1, NW., head	53° 37.9' N 0° 10.2' W	<b>2F.R.</b> (vert.)	16 5	2		
1882 A 2484.6	--A1, NW., head	53° 37.9' N 0° 10.4' W	<b>2Q.R.</b> (vert.)	26 8	5	Dolphin.	2 meters apart. <b>Horn:</b> Mo.(A) ev. 30s (bl. 1s, si. 2s, bl. 6s, si. 21s)
1888 A 2487	-E. jetty, head	53° 37.8' N 0° 10.7' W	<b>2F.R.</b> (vert.)	30 9	3	Red lattice metal tower; 20.	2 meters apart.
1892 A 2489	-W. jetty, elbow	53° 38.0' N 0° 11.3' W	<b>2F.R.</b> (vert.)	26 8	3	Column; 30.	2 meters apart.
1901 A 2491.5	--291°	53° 38.4' N 0° 12.0' W	<b>Dir.W.R.G.</b>	56 17	10	Building.	F.G. 288°30'-289°30', Q.G. - 290°30', F.W. -291°30', Q.R. -292°30', F.R. - 293°30'. Day range 3nM. Shown 24 hours.
1904 A 2491.6	--NW., head	53° 38.4' N 0° 12.0' W	<b>2F.R.</b> (vert.)				2 meters apart.
1908	CLAY HUTS LIGHTFLOAT	53° 38.5' N 0° 11.3' W	<b>Iso.W.</b> period 2s	16 5	9	SAFE WATER White, topmark, red vertical stripes.	

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<b>ENGLAND-RIVER HUMBER</b>							
SOUTH KILLINGHOLME:							
1909 A 2496	-LPG jetty, SE. head	53° 38.7' N 0° 12.3' W	<b>2Oc.R.</b> (vert.) period 5s	16 5			2 meters apart.
1909.5 A 2496.4	--NE. head	53° 38.8' N 0° 12.4' W	<b>2Oc.R.</b> (vert.) period 5s	16 5			2 meters apart.
1910 A 2496.6	--S. dolphin	53° 38.7' N 0° 12.3' W	<b>2F.R.</b> (vert.)	13 4		Dolphin.	2 meters apart. <b>Horn:</b> Mo.(G ) ev. 60s
1910.5 A 2496.8	--N. dolphin	53° 38.8' N 0° 12.5' W	<b>2F.R.</b> (vert.)	13 4		Dolphin.	2 meters apart.
KILLINGHOLME:							
1920 A 2498	-Oil jetty, head	53° 38.9' N 0° 12.6' W	<b>2Q.R.</b> (vert.)	23 7			2 meters apart. Synchronized.
1924 A 2499.6	North Killingholme oil jetty, off S. head	53° 39.9' N 0° 13.8' W	<b>2F.R.</b> (vert.)				
1928 A 2506	Thorngumbald Clough Range, front	53° 42.5' N 0° 13.6' W	<b>Oc.W.</b> period 2s lt. 1.5s, ec. 0.5s	26 8	9	White tower; 33.	Visible 130°-140°.
1932 A 2508	-Rear, 113 meters 135° from front	53° 42.5' N 0° 13.5' W	<b>Oc.W.</b> period 2s	43 13	9	Red metal tower; 49.	Visible 130°-140°. Synchronized with front.
1936	NORTH HOLME LIGHTFLOAT NO 17	53° 40.9' N 0° 13.1' W	<b>V.Q.(9)W.</b> period 10s			W. CARDINAL Yellow, black banded, topmark.	
1940	SAND END LIGHTFLOAT NO 16	53° 42.5' N 0° 14.4' W	<b>FI.R.</b> period 4s	16 5	3	PORT (IALA A) Red, name in white on sides.	
SALT END:							
1946 A 2515	-Jetty No 1 Range, front	53° 43.6' N 0° 14.9' W	<b>Oc.Bu.</b> period 6s lt. 4.5s, ec. 1.5s	30 9		Beacon, yellow x-shape daymark.	Occasional. Marks upstream limit of dredged approach.
1946.1 A 2515.1	--Rear 18 meters 104° from front	53° 43.6' N 0° 14.8' W	<b>Oc.Bu.</b> period 6s lt. 4.5s, ec. 1.5s	39 12		Beacon, yellow x-shape daymark.	Synchronized with front.
1952 A 2518	--Jetty No 3, branch, SE. head	53° 43.5' N 0° 14.6' W	<b>2F.G.</b> (vert.)	23 7	2	Metal mast; 26.	2 meters apart.
1953 A 2518.5	---Dolphin	53° 43.5' N 0° 14.7' W	<b>2F.G.</b> (vert.)	20 6			2 meters apart.
1954 A 2520	---Range, front	53° 43.5' N 0° 14.8' W	<b>Oc.Bu.</b> period 4s lt. 3s, ec. 1s	30 9		Beacon, yellow x-shape daymark.	Occasional. Marks downstream limit of dredged approach.
1954.1 A 2520.1	----Rear 23 meters 000° from front	53° 43.5' N 0° 14.6' W	<b>Oc.Bu.</b> period 4s lt. 3s, ec. 1s	49 15		Beacon, yellow x-shape daymark.	Synchronized with front. Occasional.
1957 A 2530.2	King George Dock Entrance, E. side	53° 44.4' N 0° 16.4' W	<b>Oc.Bu.</b> period 5s			Yellow beacon, yellow triangle, point up daymark.	In line with Docking Signals 130 meters N. Marks E. side of dredged channel.
<b>ENGLAND-EAST COAST</b>							
1960 A 2580	Bridlington, N. pier, head	54° 04.8' N 0° 11.2' W	<b>FI.W.</b> period 2s  <b>F.</b>  <b>F.G.</b>	39 12	9	Column; 30.	Horn: 1bl. ev. 60s (bl. 5s, si. 55s).  Tide signal. Occasional.  Occasional.
1964 A 2582	Flamborough Head	54° 07.0' N 0° 05.0' W	<b>FI.(4)W.</b> period 15s fl. 1s, ec. 1s fl. 1s, ec. 1s fl. 1s, ec. 1s fl. 1s, ec. 8s	213 65	18	White round tower; 89.	<b>Dgps station.</b>

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<b>ENGLAND-EAST COAST</b>							
1968 A 2586	Filey	54° 12.6' N 0° 17.0' W	<b>F.R.</b>	102 31	1	Green metal column; 13.	Visible 272°-308°. Storm signals. Occasional (fishing).
SCARBOROUGH:							
1972 A 2590	-W. pier, head	54° 16.9' N 0° 23.3' W	<b>2F.R.</b> (vert.)	16 5	4	Watch hut; 10.	
1976 A 2592	-Lighthouse Pier	54° 16.9' N 0° 23.4' W	<b>Iso.W.</b> period 5s	56 17	9	White round tower; 49.	Visible 219°-39°. Shown during more than 12ft on bar. <b>Diaphone:</b> 1bl. ev. 60s (bl. 2s, sl. 58s)
1980 A 2588	-E. pier, head	54° 16.9' N 0° 23.2' W	<b>Q.G.</b>	26 8	3	Mast; 13.	
WHITBY:							
1984 A 2599	-W. pier, head	54° 29.6' N 0° 36.7' W	<b>Q.G.</b>	39 12	5	Green wooden tower; 23.	Visible 95°-0°. Synchronized with 1988. <b>Horn:</b> 1bl. ev. 30s (bl. 3s, sl. 27s)
1988 A 2598	-E. pier, head	54° 29.6' N 0° 36.6' W	<b>Q.R.</b>	39 12	5	Red wooden tower; 23.	Visible 0°-270°. Synchronized with 1984.
1992 A 2596	-Whitby High	54° 28.7' N 0° 34.1' W	<b>FI.W.R.</b> period 5s fl. 0.8s, ec. 4.2s	240 73	<b>W. 18</b> <b>R. 16</b>	White octagonal tower, dwellings; 43.	R. 128°-143°, W. -319°.
REDCAR:							
2000 A 2616	-Luff Way on Esplanade Range, front	54° 37.1' N 1° 03.7' W	<b>F.R.</b>	26 8	7	Metal column; 16.	Visible 182°-212°.
2004 A 2616.1	--Rear, 115 meters 197° from front	54° 37.0' N 1° 03.7' W	<b>F.R.</b>	39 12	7	Metal column; 26.	Visible 182°-212°.
2008 A 2620	-Promenade Range, front	54° 37.1' N 1° 03.9' W	<b>Oc.R.</b> period 2.5s lt. 1.5s, ec. 1s	30 9	7	Metal column; 16.	Visible 232°-262°.
2012 A 2620.1	--Rear, 43 meters 247° from front	54° 37.1' N 1° 03.9' W	<b>Oc.R.</b> period 2.5s lt. 1.5s, ec. 1s	36 11	7	Building, brick; 26.	Visible 232°-262°.
RIVER TEES:							
2016	-Fairway RACON	54° 40.9' N 1° 06.4' W	<b>B(-•••)</b> period 72s				(3 cm).
2020 A 2626	-South Gare	54° 38.8' N 1° 08.2' W	<b>FI.W.R.</b> period 12s fl. 1.5s, ec. 10.5s	52 16	10	White round tower; 43.	W. 35°-240°, R. -329°.
2024 A 2627	-Range, front	54° 37.2' N 1° 10.2' W	<b>F.R.</b>	59 18	13	Red lattice metal tower, white banded.	
2028 A 2627.1	--Rear, 560 meters 210°04' from front	54° 37.0' N 1° 10.4' W	<b>F.R.</b>	66 20	16	Lattice metal tower.	
2029 A 2634	-No 13	54° 37.5' N 1° 09.7' W	<b>Q.(2)G.</b> period 5s	23 7		Black and white checkered beacon.	
2030 A 2636	-Jetty, N. head	54° 36.7' N 1° 09.2' W	<b>2F.R.</b> (vert.)				2 meters apart.
2031 A 2636.2	--S., head	54° 36.6' N 1° 09.2' W	<b>2F.R.</b> (vert.)				2 meters apart.
2032 A 2644	-Tees Dock, outer corner	54° 36.3' N 1° 09.5' W	<b>2F.R.</b> (vert.)	16 5			2 meters apart. F.R. lights mark cargo-handling booms when in horizontal positions.
2044 A 2657	-Ichaboe, jetty, head	54° 35.0' N 1° 12.3' W	<b>2F.G.</b> (vert.)	20 6			2 meters apart. 2 F.G. (vert.) on travelling ship loader when boom is extended, 440m W.
HARTLEPOOL:							

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<b>ENGLAND-EAST COAST</b>							
2052 A 2664	-Old, pier head	54° 41.6' N 1° 11.1' W	<b>FI.G.</b> period 3s	43 13	7	White lattice wooden tower, red banded; 39.	
2055 A 2664.85	-Town Wall	54° 41.8' N 1° 11.4' W	<b>2F.G.</b> (vert.)				Traffic signals shown 40 meters SSE.
2056 A 2663	-The Heugh	54° 41.8' N 1° 10.6' W	<b>FI.(2)W.R.</b> period 10s fl. 0.4s, ec. 1.6s fl. 0.4s, ec. 7.6s	62 19	19	White metal tower; 43.	R. 129°-139°, W. -10°.
2057 A 2666	-324°54'	54° 42.0' N 1° 11.7' W	<b>Dir.Iso.W.R.G.</b> period 3s	138 42		Metal tower.	G. 323°12'-324°24', W. - 325°24', R. -326°36'.
2058 A 2667	-West Harbor, outer S. pier, head	54° 41.3' N 1° 11.7' W	<b>Oc.R.</b> period 5s	39 12	2	Metal mast; 20.	
2059 A 2667.2	--Outer N. pier, head	54° 41.3' N 1° 11.6' W	<b>Oc.G.</b> period 5s	39 12	2	White column; 20.	
2060 A 2667.6	--Inner N. pier, head	54° 41.4' N 1° 11.7' W	<b>F.G.</b>	23 7	2	Metal mast; 13.	
2061 A 2667.8	--Middle pier, head	54° 41.3' N 1° 11.7' W	<b>F.R.</b>	23 7	2	Metal mast; 13.	
2062 A 2667.4	--308°	54° 41.4' N 1° 11.9' W	<b>Dir.FI.W.R.G.</b> period 2s	20 6	3	Building.	G. 305°30'-307°, W. -309°, R. -310°30'.
2064 A 2669	-Pipe jetty, head	54° 42.8' N 1° 12.5' W	<b>2F.R.</b> (vert.)		1	7.	<b>Bell:</b> 1 strokes ev. 15s
SEAHAM:							
2068 A 2675	-S. pier, head	54° 50.2' N 1° 19.3' W	<b>2F.R.</b> (vert.)	33 10	5	Red metal column; 23.	2 meters apart.
2072 A 2674	-N. breakwater, head	54° 50.2' N 1° 19.3' W	<b>FI.(4)G.</b> period 10s fl. 1s, ec. 1s fl. 1s, ec. 1s fl. 1s, ec. 1s fl. 1s, ec. 3s	39 12	10	White metal column, black banded; 33.	
2076 A 2676	-Wave screen, head	54° 50.2' N 1° 19.4' W	<b>3F.R.</b>	16 5	2	Red metal column; 13.	In shape of triangle. S. dock entrance, N. side F.G., S. side F.R. on white column (occasional).
SUNDERLAND:							
2080 A 2682	-New S. pier, head	54° 55.1' N 1° 21.2' W	<b>FI.W.</b> period 10s fl. 0.5s, ec. 9.5s	46 14	10	White metal tower; 33.	
2084 A 2681	-Roker Pier, head.	54° 55.3' N 1° 21.1' W	<b>FI.W.</b> period 5s fl. 0.2s, ec. 4.8s	82 25	18	White round tower, three red bands, cupola; 75.	Visible 211°-357°. <b>Siren:</b> 1bl. ev. 20s (bl. 2s, si. 18s)
2092 A 2686	-Old N. pier, head	54° 55.1' N 1° 21.5' W	<b>Q.G.</b>	39 12	8	Metal column.	Traffic signals are displayed on the SW. end of Old N. Pier.
2094 A 2684	-Old S. pier, head	54° 55.0' N 1° 21.6' W	<b>FI.R.</b> period 5s fl. 0.5s, ec. 4.5s	30 9	2	PORT (IALAA) Red tower, topmark.	
2095 A 2690	-N. dock basin	54° 55.0' N 1° 21.8' W	<b>FI.G.</b> period 5s			Post.	
2096 A 2692	-N. dock, E. pier, head	54° 55.1' N 1° 21.8' W	<b>FI.(2)G.</b> period 10s		2	STARBOARD (IALAA) Green beacon, topmark.	
RIVER TYNE:							
2104 A 2700	-Tynemouth, head	55° 00.9' N 1° 24.2' W	<b>FI.(3)W.</b> period 10s fl. 0.2s, ec. 2s fl. 0.2s, ec. 2s fl. 0.2s, ec. 5.4s	85 26	26	Grey round masonry tower, white lantern; 75.	<b>Horn:</b> 1bl. ev. 10s (bl. 3s, si. 7s)

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>ENGLAND-EAST COAST</b>							
2108 A 2702	-S. pier, head	55° 00.7' N 1° 24.1' W	<b>Oc.W.R.G.</b> period 10s lt. 8s, ec. 2s	49 15	W. 13 R. 9 G. 8	Grey round masonry tower, red and white lantern; 39.	W. 75°-161°, G. -179°, W. - 255°, R. -75°.
2112 A 2702.5	-Herd Groyne, 249°	55° 00.5' N 1° 25.4' W	<b>Oc.W.R.G.</b> period 10s lt. 8s, ec. 2s  <b>F.R.</b>	43 13	<b>W. 19</b> R. 11 G. 11	Red pile structure, red and white lantern; 49.	G. 224°-246°30', W. - 251°30', R. -277°30'. Oc.W. range 5M by day.  Visible UNINTENSIFIED80°- 224°.
2116 A 2708	--Beacon on No 1 groyne	55° 00.5' N 1° 25.8' W	<b>FI.G.</b> period 5s	20 6	9	Green metal beacon; 13.	<b>Radar reflector.</b>
2140 A 2724	-Bill Point, Naval Yard	54° 57.8' N 1° 32.2' W	<b>FI.(2)G.</b> period 10s	13 4	1	Beacon.	
2148 A 2726	-St. Anthony's Point, N. bank	54° 57.6' N 1° 33.3' W	<b>FI.G.</b> period 5s fl. 0.5s, ec. 4.5s	16 5	3	Green structure; 33.	
2156 A 2728	-St. Peters, N. bank	54° 57.8' N 1° 33.9' W	<b>FI.(3)G.</b> period 10s	20 6	3	Green pile structure, platform.	
2160 A 2744	Cullercoats Range, front	55° 02.0' N 1° 25.9' W	<b>F.R.</b>	89 27	3	Post; 10.	
2164 A 2744.1	-Rear, 38 meters 256° from front	55° 02.1' N 1° 25.8' W	<b>F.R.</b>	115 35	3	Column; 13.	
BLYTH:							
2172 A 2766	-Range, front	55° 07.4' N 1° 29.8' W	<b>Dir.W.R.G.</b>	46 14	10	Metal column; 39.	Iso.G. 322°-324°, Al.W.G. - 325°, Iso.W. -327°, Al.W.R. -328°, Iso.R. - 330°.
2180 A 2754	-E. pier, head	55° 07.0' N 1° 29.2' W	<b>FI.(4)W.</b> period 10s fl. 0.3s, ec. 1.3s fl. 0.3s, ec. 1.3s fl. 0.3s, ec. 1.3s fl. 0.3s, ec. 4.9s  <b>F.R.</b>	62 19  43 13	21  13	White tower; 46.	<b>Horn:</b> 3bl. ev. 30s (bl. 1s, si. 2s, bl. 1s, si. 2s, bl. 1s, si. 22s)  Visible 152°-249°. <b>Horn:</b> 3bl. ev. 30s (bl. 1s, si. 2s, bl. 1s, si. 2s, bl. 1s, si. 22s)
2184 A 2760	-W. pier, head	55° 07.0' N 1° 29.4' W	<b>2F.R.(vert.)</b>	23 7	8	White tower; 13.	
2188 A 2762	-Training wall, S. head	55° 07.1' N 1° 29.3' W	<b>FI.R.</b> period 6s fl. 1s, ec. 5s	20 6	1	Red lattice metal tower, dolphin; 7.	
2192 A 2763	-W. side of channel within entrance	55° 07.2' N 1° 29.4' W	<b>2F.R.(vert.)</b>	16 5		Dolphin.	2 meters apart.
2196 A 2764	-W. pier, N. head	55° 07.3' N 1° 29.6' W	<b>FI.R.</b> period 6s	16 5	5	White metal structure; 10.	
2200 A 2770	-Blyth Snook Range, front	55° 07.7' N 1° 29.8' W	<b>F.Bu.</b>	16 5	5	White hexagonal tower; 12.	
2204 A 2770.1	--Rear, 87 meters 338° from front	55° 07.8' N 1° 29.9' W	<b>F.Bu.</b>	36 11	5	Mast, white triangle, point up daymark; 23.	
2208 A 2775	-Alcan Terminal, SE. head	55° 07.8' N 1° 30.0' W	<b>2F.G.(vert.)</b>	13 4	1		2 meters apart.
2212 A 2775.2	--NW. head	55° 07.8' N 1° 30.1' W	<b>2F.G.(vert.)</b>	13 4	1		2 meters apart.
2216 A 2775.5	-Ro Ro pontoon, E. head	55° 08.0' N 1° 30.7' W	<b>2F.R.(vert.)</b>				
2224 A 2776	-W. coaling staiths, head	55° 08.3' N 1° 31.1' W	<b>FI.R.</b> period 3s		3		
2226 A 2778	-Blyth Power Station Discharge	55° 08.7' N 1° 30.8' W	<b>2F.R.(vert.)</b>	10 3	2	Concrete platform, piles; 20.	Visible 156°-336°.

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<b>ENGLAND-EAST COAST</b>							
2228 A 2780	Coquet Island	55° 20.0' N 1° 32.5' W	<b>Fl.(3)W.R.</b> period 20s fl. 0.1s, ec. 3.3s fl. 0.1s, ec. 3.3s fl. 0.1s, ec. 13.1s	82 25	<b>W. 19</b> <b>R. 15</b>	White square tower, white top, half-gray truncated parapet tower; 72.	R. 330°-140°, W. -163°, R. -180°, W. -330°. <b>Horn:</b> 1bl. ev. 30s (bl. 2s, si. 28s)
2232 A 2784	Warkworth, S. breakwater, head	55° 20.3' N 1° 34.2' W	<b>Fl.R.</b> period 5s	30 9	5	White round tower, red banded, white base; 26.	
2236 A 2785	-N. breakwater, head	55° 20.4' N 1° 34.1' W	<b>Fl.G.</b> period 6s	39 12	6	Green post.	
NORTH SUNDERLAND:							
2244 A 2804	-NW. pier, head	55° 35.0' N 1° 38.9' W	<b>F.G.</b>	36 11	3	White tower; 26.	Visible 159°-294°. Traffic Signals. <b>Siren:</b> 1bl. ev. 90s (bl. 6s, si. 94s)
2248 A 2802	-Breakwater, head	55° 35.0' N 1° 38.8' W	<b>Fl.R.</b> period 2.5s fl. 0.2s, ec. 2.3s	20 6		Metal tripod.	
2252 A 2810	Bamburgh	55° 36.9' N 1° 43.5' W	<b>Oc.(2)W.R.G.</b> period 8s lt. 1s, ec. 1s lt. 5s, ec. 1s	39 12	W. 14 R. 11 G. 11	White building; 30.	G. 122°-165°, W. -175°, R. -191°, W. -238°, R. -275°, W. -289°, G. -300° Shown 24 hours.
FARNE ISLANDS:							
2256 A 2812	-Farne, near SW. point	55° 36.9' N 1° 39.4' W	<b>Fl.(2)W.R.</b> period 15s fl. 1s, ec. 2s fl. 1s, ec. 11s	89 27	8	White round tower; 43.	R. 119°-280°, W. -119°.
2260 A 2814	-Longstone	55° 38.6' N 1° 36.5' W	<b>Fl.W.</b> period 20s fl. 0.2s, ec. 19.8s	75 23	<b>18</b>	Red tower, white banded; 85.	<b>AIS</b> (MMSI No 992351127).
HOLY ISLAND:							
2262 A 2816	-Holy Island Harbor, Old Law, E. beacon	55° 39.5' N 1° 47.5' W	<b>Oc.W.R.G.</b> period 6s lt. 4s, ec. 2s	30 9	4	Stone obelisk; 69.	G. 180°30'-258°30', W. -261°30', R. -300°.
2263 A 2816.5	--Heugh	55° 40.1' N 1° 47.9' W	<b>Oc.W.R.G.</b> period 6s lt. 4s, ec. 2s	79 24	5	Latticed tower, black triangle, point up daymark; 26.	G. 135°-308°, W. -311°, R. -135°.
2264 A 2818	Berwick Upon Tweed, breakwater, head	55° 45.9' N 1° 59.1' W	<b>Fl.W.</b> period 5s fl. 0.5s, ec. 4.5s	49 15	6	White round masonry tower, red cupola, red base; 43.	Visible 201°-9°.
			<b>F.G.</b>	26 8	1		Visible 9°-155°.
2268 A 2819	-Breakwater, root	55° 46.0' N 1° 59.4' W	<b>2F.G.(vert.)</b>	7 2			
2272 A 2820	-Near root	55° 45.9' N 1° 59.5' W	<b>Q.G.</b>	13 4	1	White column; 10.	
2276 A 2824	-Tweed Dock, S. pier, head	55° 45.9' N 2° 00.2' W	<b>2F.R.(vert.)</b>	10 3			
2280 A 2823	-Carr Rock jetty	55° 45.7' N 1° 60.0' W	<b>2F.R.(vert.)</b>				
2284 A 2822	-Spittal Range, front	55° 45.7' N 1° 59.7' W	<b>Fl.W.</b> period 4s	13 4		Orange mast, black banded, orange triangle, point down daymark; 13.	
2288 A 2822.1	--Rear, 55 meters 207° from front	55° 45.7' N 1° 59.4' W	<b>Fl.W.</b> period 4s	30 9		Orange mast, black banded, orange triangle, point down daymark; 39.	Synchronized with front.
<b>SCOTLAND-EAST COAST</b>							
2292 A 2834	Burnmouth Range, front	55° 50.6' N 2° 04.2' W	<b>F.R.</b>	95 29	4	White post; 7.	Difficult to identify by day.

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<b>SCOTLAND-EAST COAST</b>							
2296 A 2834.1	-Rear, 241° 45 meters from front	55° 50.6' N 2° 04.1' W	<b>F.R.</b>	115 35	4	White post; 7.	Difficult to identify by day.
2300 A 2840	Eyemouth Range, front	55° 52.5' N 2° 05.2' W	<b>F.G.</b>	30 9	6	Orange column; 13.	Tide gauge.
2304 A 2840.1	-Rear, 55 meters 174° from front	55° 52.5' N 2° 05.2' W	<b>F.G.</b>	33 10	6	Orange column; 20.	
2308 A 2841	-E. breakwater, head	55° 52.5' N 2° 05.3' W	<b>Iso.R.</b> period 2s	26 8	8	White mast; 16.	
2312 A 2846	St. Abbs Range, front	55° 53.9' N 2° 07.6' W	<b>F.R.</b>	7 2	1	White post, red banded.	
2316 A 2846.1	-Rear, 176° from front	55° 53.9' N 2° 07.6' W	<b>F.R.</b>	13 4	1	White post, red banded.	
2320 A 2850	St. Abbs Head	55° 55.0' N 2° 08.3' W	<b>Fl.W.</b> period 10s fl. 0.3s, ec. 9.7s	223 68	18	White tower, building; 30.	
	RACON		<b>T(-)</b>		18		(3 & 10 cm).
2324 A 2852	Torness Power Station, breakwater, head	55° 58.4' N 2° 24.4' W	<b>Fl.R.</b> period 5s fl. 0.5s, ec. 4.5s	33 10	5	Concrete column; 7.	
	DUNBAR:						
2332 A 2860	-Victoria Harbor, middle quay	56° 00.3' N 2° 30.9' W	<b>Q.R.</b>	20 6	3	Column; 16.	Visible over harbor entrance.
2336 A 2856	-Bayswell Hill Range, front	56° 00.3' N 2° 31.2' W	<b>Oc.G.</b> period 6s fl. 5s, ec. 1s	49 15	3	Column, orange triangle, point up daymark; 13.	Visible INTENSIFIED 188°-208°.
2340 A 2856.1	--Rear 198° from front	56° 00.2' N 2° 31.2' W	<b>Oc.G.</b> period 6s	72 22	3	Column, orange triangle, point down daymark; 13.	Visible INTENSIFIED 188°-208°. Synchronized with front.
	FIRTH OF FORTH:						
2344 A 2864	-Bass Rock	56° 04.6' N 2° 38.5' W	<b>Fl.(3)W.</b> period 20s fl. 0.5s, ec. 2s fl. 0.5s, ec. 2s fl. 0.5s, ec. 14.5s	151 46	10	White tower, dwelling; 66.	Visible 241°-107°.
2348 A 2866	-North Berwick, N. pier, head	56° 03.7' N 2° 43.2' W	<b>F.W.R.</b>	23 7	3	Post; 10.	R. seaward, W. over harbor. Extinguished when vessels cannot enter.
2352 A 2868	-Fidra Island.	56° 04.4' N 2° 47.1' W	<b>Fl.(4)W.</b> period 30s fl. 0.8s, ec. 2s fl. 0.8s, ec. 2s fl. 0.8s, ec. 2s fl. 0.8s, ec. 20.8s	112 34	15	White brick tower; 56.	Visible 267°30'-268°, 271°30'-277°, 280°-266°.
2356 A 2872	-Port Seton, E. pier, head	55° 58.4' N 2° 57.3' W	<b>Iso.W.R.</b> period 4s	33 10	W. 9 R. 6	White lattice metal tower; 23.	R. 60°-105°, W. -225°, R. -275°. Bell.
2360 A 2874	-Cockenzie, jetty, head	55° 58.3' N 2° 58.4' W	<b>Q.R.</b>	20 6	1	Lantern.	
2364 A 2878	-Fisherrow, E. pier, head	55° 56.8' N 3° 04.1' W	<b>Oc.W.</b> period 6s fl. 4s, ec. 2s	16 5	6	Lattice metal tower; 10.	
2368 A 2884	--E. breakwater, head	55° 59.5' N 3° 10.9' W	<b>Iso.R.</b> period 4s	23 7	9	Red lantern, concrete base; 13.	
2374 A 2887	--Entrance jetty	55° 59.5' N 3° 11.0' W	<b>L.Fl.R.</b> period 6s fl. 2s, ec. 4s				
2380 A 2904	--E. breakwater, head	55° 59.3' N 3° 13.2' W	<b>Fl.R.</b> period 2s fl. 0.3s, ec. 1.7s	16 5	6	White square brick building; 16.	
2388 A 2912	-Inchkeith	56° 02.0' N 3° 08.2' W	<b>Fl.W.</b> period 15s fl. 0.4s, ec. 14.6s	220 67	14	Masonry tower; 62.	

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<b>SCOTLAND-EAST COAST</b>							
2390 A 2915	-Hawkcraig Point Range, front	56° 03.0' N 3° 17.1' W	<b>Iso.W.</b> period 5s	39 12	14	White tower, red banded; 13.	Visible 282°-302°.
2390.1 A 2915.1	--Rear, 96 meters 292° from front	56° 03.0' N 3° 17.1' W	<b>Iso.W.</b> period 5s	52 16	14	White tower, red banded; 26.	Visible 282°-302°. Synchronized with front.
2392 A 2916	-Oxcars, on rock	56° 01.4' N 3° 16.8' W	<b>Fl.(2)W.R.</b> period 7s fl. 0.5s, ec. 1s fl. 0.5s, ec. 5s	52 16	W. 13 R. 12	White tower, red banded; 72.	W. 72°-87°, R. -196°, W. -313°, R. -72°. <b>Radar reflector.</b>
2393 A 2915.4	-Braefoot Bay Terminal Range, front	56° 02.2' N 3° 18.7' W	<b>Fl.W.</b> period 3s	20 6	15	White post, dolphin, triangle, point up daymark; 7.	Visible 237°12'-257°12'. 2 F.G. (vert.) mark 4 berthing and 4 mooring dolphins.
2394 A 2915.41	--Rear, 88 meters 247°15' from front	56° 02.1' N 3° 18.8' W	<b>Fl.W.</b> period 3s	39 12	15	White post, jetty, triangle, point down daymark; 7.	Visible 237°12'-257°12'. Synchronized with front.
2396 A 2919	--St. David's Beacon, 098°	56° 01.4' N 3° 22.3' W	<b>Fl.G.</b> period 5s fl. 0.2s, ec. 4.8s	10 3	7	Piles, green square daymark.	
2408 A 2916.5	-Inchcolm E. point	56° 01.7' N 3° 17.8' W	<b>Fl.(3)W.</b> period 15s fl. 0.5s, ec. 1.5s fl. 0.5s, ec. 1.5s fl. 0.5s, ec. 10.5s	66 20	10	Grey lattice metal tower; 33.	Partially obscured 75°-145°30' by shore.
2409 A 2917.1	-N. front, 76°45' from common rear	56° 01.8' N 3° 18.3' W	<b>Q.W.</b>	23 7	7	White tower; 7.	Visible 62°30'-82°30'. Synchronized with S. front.
2409.1 A 2916.9	-S. front, 246° from common rear	56° 01.8' N 3° 18.3' W	<b>Q.W.</b>	23 7	7	White tower; 7.	Visible 62°30'-82°30'.
2409.2 A 2917	--Inchcolm W., common rear, 80 meters 256°45' from N. front, 84 meters 246° from S. front	56° 01.8' N 3° 18.2' W	<b>Iso.W.</b> period 5s	36 11	7	White tower; 7.	Visible 62°30'-82°30'.
2412 A 2925.9	--Hawes Pier	55° 59.6' N 3° 23.2' W	<b>F.R.</b>	7 2		Beacon.	
2416 A 2925	--Forth Railway Bridge, S. span	55° 59.9' N 3° 23.3' W	<b>F.W.</b>	154 47	5		2 F.R. 47m 5M mark width of navigable span on each side of bridge. Shown 24 hours.
2416.1 A 2923	---N. span	56° 00.2' N 3° 23.4' W	<b>F.W.</b>	154 47	5		2 F.R. 47m 5M mark width of navigable span on each side of bridge. Shown 24 hours.
2418 A 2929	--Forth Road Bridge	56° 00.1' N 3° 24.2' W	<b>Iso.W.</b> period 4s	164 50	8	Underside of main span.	Visible downstream. 2 Iso.R. 4s 7m 6M and 2 Iso.G. 4s 7m 6M mark width of navigable span on each side of bridge. Shown 24 hours.
2420 A 2934	-Port Edgar, W. breakwater, head, 244°	55° 59.9' N 3° 24.8' W	<b>Fl.R.</b> (vert.) period 4s fl. 1s, ec. 3s	13 4	8	White blockhouse; 13.	3 Q.Y. lights mark breakwater. Three 2 F.R. (vert.) marks N. ends of marina pontoons inside the harbor.
2421 A 2938.3	--Queensferry Crossing, S. span	56° 00.1' N 3° 24.9' W	<b>Iso.W.</b> period 8s	184 56	8		Iso.R. 2s 7m 5M and Q.G. 58m 5M mark width of navigable span on each side of bridge.
2422 A 2937.8	---Central Tower	56° 00.3' N 3° 24.8' W	<b>Iso.W.</b> period 2s	23 7	9		
2423 A 2937.4	---N. span	56° 00.5' N 3° 24.6' W	<b>Iso.W.</b> period 4s	184 56	8		Q.R. 58m 5M and Iso.G. 2s 7m 5M mark width of navigable span on each side of bridge.
2424 A 2936	--Beamer Rock, E. side	56° 00.3' N 3° 24.7' W	<b>Fl.W.</b> period 3s fl. 0.2s, ec. 2.8s	16 5	9	White metal post.	
2424.1 A 2935	---W. side	56° 00.3' N 3° 24.8' W	<b>Fl.W.</b> period 3s fl. 0.2s, ec. 2.8s	16 5	9	White metal post.	

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<b>SCOTLAND-EAST COAST</b>							
2428 A 2942	-Rosyth, jetty, S. arm	56° 01.1' N 3° 26.6' W	<b>L.FI.(2)W.R.</b> period 12s fl. 2s, ec. 2s fl. 2s, ec. 6s	16 5	W. 9 R. 6	Brick building; 13.	W. 10°-280°, R. -10°. 3 Q.Y. shown along S. Arm Jetty when dock in use. 4 F.R. lights on tower 230 meters WNW.
2432 A 2940	-Rosyth Dockyard Main Channel, Beacon A, 323°30'	56° 01.2' N 3° 25.6' W	<b>Dir.Oc.W.R.G.</b> period 9s lt. 6s, ec. 3s	23 7	4	White post, red banded, red square daymark.	G. 318°-321°, W. -326°, R. - 328°. Shown 24 hours.
2444 A 2945	-Middle jetty, head	56° 01.3' N 3° 26.6' W	<b>F.G.R.</b> (vert.)	23 7		Foot of framework tower.	2.5 meters apart. Flood light.
2448 A 2947	-P jetty, S. head	56° 01.4' N 3° 26.6' W	<b>F.G.R.</b> (vert.)				
2452 A 2949	-Charlestown Range, front	56° 02.2' N 3° 30.7' W	<b>Iso.G.</b> period 4s	13 4	10	Yellow piles, yellow triangle, point up daymark; 20.	Visible 9°-39°. Marks high-pressure gas main.
2456 A 2949.1	--Rear	56° 02.3' N 3° 30.6' W	<b>Iso.G.</b> period 4s	20 6	10	Yellow piles, yellow triangle, point down daymark; 16.	Visible 9°-39°. Synchronized with front.
2460 A 2951	-Crombie Jetty, downstream dolphin	56° 01.9' N 3° 31.8' W	<b>2F.G.</b> (vert.)	26 8	4	Column; 16.	2 meters apart.
2464 A 2951.5	--Upstream dolphin	56° 02.0' N 3° 32.1' W	<b>2F.G.</b> (vert.)	26 8	4	Column; 16.	2 meters apart.
2466 A 2954	-Bo'ness, Carriden Outfall	56° 01.3' N 3° 33.7' W	<b>FI.Y.</b> period 5s		3	Yellow pile beacon, yellow rectangular daymark; 7.	
2468 A 2956	-Torry	56° 02.5' N 3° 35.3' W	<b>Q.G.</b>	16 5	4	Green round structure; 39.	
2472 A 2960	-Grangemouth No 1	56° 02.1' N 3° 38.1' W	<b>FI.(3)R.</b> period 10s fl. 0.5s, ec. 1s fl. 0.5s, ec. 1s fl. 0.5s, ec. 6.5s	13 4	6	Pile, red rectangular daymark.	
2480 A 2962	--No 3	56° 02.3' N 3° 39.2' W	<b>FI.R.</b> period 4s	13 4	3	Pile, red rectangular daymark.	
2488 A 2964	--No 5	56° 02.3' N 3° 39.9' W	<b>FI.R.</b> period 2s fl. 0.5s, ec. 1.5s	13 4	5	Pile, red rectangular daymark.	
2490	-No 7 Buoy, RACON	56° 02.8' N 3° 10.8' W	<b>T(-)</b> period 60s		5		Frequency coverage 9300- 9500 MHz.(3 cm).
2492 A 2978	-Longannet Point	56° 02.8' N 3° 41.0' W	<b>L.FI.G.</b> period 10s fl. 4s, ec. 6s	16 5	6		
2493 A 2978.9	--Berth No 2, NE. dolphin	56° 00.5' N 3° 21.2' W	<b>2F.R.</b> (vert.)	23 7	5	Post on dolphin; 13.	2m apart. <b>Horn:</b> 3bl. ev. 90s (bl. 2s, si. 2s, bl. 2s, si. 2s, bl. 2s, si. 82s)
2493.1 A 2978.8	--E. end	56° 00.5' N 3° 21.3' W	<b>2F.R.</b> (vert.)	23 7	5	Post on dolphin; 13.	2m apart.
2493.2 A 2978.7	--W. end	56° 00.4' N 3° 21.4' W	<b>2F.R.</b> (vert.)	23 7	5	Post on dolphin; 13.	2m apart.
2494 A 2978.2	--Berth No 1, E. end	56° 00.4' N 3° 21.7' W	<b>F.R.</b>	23 7	5	Dolphin.	
2494.1 A 2978.4	--Center	56° 00.3' N 3° 21.8' W	<b>2F.R.</b>	154 47	5		Aeromarine light.
2494.2 A 2978.5	--W. end	56° 00.3' N 3° 21.8' W	<b>F.R.</b>	23 7	5	Dolphin.	
2494.3 A 2978.6	--SW. dolphin	56° 00.3' N 3° 21.9' W	<b>F.R.</b>	23 7	5	Dolphin.	
2496 A 3028	--Outer E. pier, head	56° 03.2' N 3° 14.2' W	<b>FI.(2)G.</b> period 6s fl. 1s, ec. 1s fl. 1s, ec. 3s	23 7	5	Mast; 16.	

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>SCOTLAND-EAST COAST</b>							
2500 A 3032	--Inner E. pier, head	56° 03.3' N 3° 14.3' W	<b>2F.G.</b> (vert.)	20 6	3	White tower; 23.	1 meter apart.
2504 A 3030	--W. pier, inner head	56° 03.3' N 3° 14.3' W	<b>2F.R.</b> (vert.)	13 4	3	White mast.	
2508 A 3026	---Outer head	56° 03.2' N 3° 14.2' W	<b>Fl.(2)R.</b> period 6s fl. 1s, ec. 1s fl. 1s, ec. 3s	23 7		White tower; 20.	
2512 A 3036	--E. pier, head	56° 06.8' N 3° 08.9' W	<b>Fl.G.</b> period 5s	39 12	3	Metal column; 23.	
2532 A 3050	--Outer pier, head	56° 10.8' N 3° 00.5' W	<b>Oc.G.</b> period 6s lt. 4s, ec. 2s	23 7	4	Metal mast; 20.	Visible 280°-100°.
2536 A 3052	--Entrance to No 2 Dock, W. side	56° 10.8' N 3° 00.5' W	<b>2F.R.</b> (vert.)	23 7	3	Metal mast; 20.	2 meters apart.
2540 A 3054	---E. side	56° 10.9' N 3° 00.5' W	<b>2F.G.</b> (vert.)	23 7	3	Metal mast; 20.	2 meters apart.
2552 A 3060	-Elie Ness	56° 11.0' N 2° 48.8' W	<b>Fl.W.</b> period 6s fl. 0.2s, ec. 5.8s	49 15	17	White tower; 36.	
2556 A 3064	--Breakwater, head	56° 12.2' N 2° 45.9' W	<b>Fl.G.</b> period 3s	10 3	4	Metal post.	
2560 A 3066	--E. pier, head	56° 12.2' N 2° 46.0' W	<b>2F.G.</b> (vert.)	20 6	4	Orange tripod; 10.	Bell, sounded when local fishing vessels are expected to return.
2564 A 3068	--W. pier	56° 12.2' N 2° 46.0' W	<b>2F.R.</b> (vert.)	20 6	4	Post on parapet; 13.	
2568 A 3070	--Middle pier Range, front	56° 12.7' N 2° 43.7' W	<b>F.R.</b>	13 4	5	White column, orange stripe; 10.	
2572 A 3070.1	--Inner end, rear, 037° from front	56° 12.8' N 2° 43.6' W	<b>F.R.</b>	26 8	5	White column, orange stripe; 33.	
2576 A 3073	--E. breakwater	56° 12.6' N 2° 43.7' W	<b>Fl.(2)R.G.</b> period 5s	30 9	R. 9 G. 6	Metal column, masonry base; 23.	R. 265°-345°, G. -55°.
2580 A 3073.2	-Beacon Rock	56° 12.6' N 2° 43.8' W	<b>Fl.R.</b> period 4s	10 3	2	Mast.	
2584 A 3080	--E. pier No 2	56° 13.1' N 2° 41.8' W	<b>Fl.G.</b> period 3s fl. 0.3s, ec. 2.7s	20 6	4	Red column; 20.	
2588 A 3078	--W. pier No 1	56° 13.2' N 2° 41.8' W	<b>2F.R.</b> (vert.)	16 5	4	Grey metal post.	2 meters apart. Traffic signals. <b>Horn:</b> 3bl. ev. 60s (bl. 2.5s, si. 2.5s, bl. 2.5s, si. 2.5s, bl. 2.5s, si. 47.5s)
2592 A 3082	--Inner end of E. pier range, front	56° 13.3' N 2° 41.8' W	<b>F.G.</b>	23 7	4	White mast; 20.	
2596 A 3082.1	---Rear, 38 meters from front	56° 13.3' N 2° 41.5' W	<b>F.G.</b>	36 11	4	White mast; 26.	
2600 A 3090	-Isle of May	56° 11.1' N 2° 33.5' W	<b>Fl.(2)W.</b> period 15s	240 73	18	Square tower, stone dwelling; 79.	
2604 A 3100	-Crail Range, front	56° 15.4' N 2° 37.9' W	<b>F.R.</b>	79 24	6	Masonry beacon; 20.	Not shown when harbor is closed.
2608 A 3100.1	--Rear, 30 meters 295° from front	56° 15.4' N 2° 37.8' W	<b>F.R.</b>	98 30	6	Masonry beacon; 16.	
2612 A 3102	-Fife Ness	56° 16.7' N 2° 35.2' W	<b>Iso.W.R.</b> period 10s	39 12	<b>W. 15</b> <b>R. 12</b>	White building; 16.	<b>AIS</b> (MMSI No 992351300).W. 143°- 197°, R. -217°, W. -23°.
2614 A 3104.5	-St Andrews, pier	56° 20.4' N 2° 47.1' W	<b>Dir.Iso.W.R.G.</b> period 2s	56 17	9	Lookout building.	Iso.G. 272°-276°, Al.Iso.W.G. -277°, Iso.W. -278°, Al.Iso.W.R. -279°, Iso.R. -283°. Shown 24 hours.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>SCOTLAND-EAST COAST</b>							
2616 A 3108	-Bell Rock	56° 26.1' N 2° 23.2' W	<b>Fl.W.</b> period 5s fl. 0.1s, ec. 4.9s	92 28	18	White round tower; 118.	
	RACON		<b>M(- -)</b> period 72s		18		(3 & 10 cm).
2617 A 3107	-Meteorological Mast	56° 26.4' N 2° 14.5' W	<b>Mo.(U)W.</b> period 15s	75 23	10	Mast; 364.	<b>AIS</b> (MMSI No 992351153). Horn: Mo.(U) ev. 30s
2620 A 3142	Tayport High	56° 27.2' N 2° 53.9' W	<b>Dir.Iso.W.R.G.</b> period 3s	79 24	14	White tower; 75.	V.Q.G 266°-267°30', Iso.G. - 268°, Iso.W. -268°30', Iso.R. -269°, V.Q.R. - 270°.
2624 A 3129	Tentsmuir Point	56° 26.6' N 2° 49.6' W	<b>Fl.Y.</b> period 5s fl. 1s, ec. 4s			Yellow beacon, yellow diamond (rhombus) daymark.	Visible 198°-208°.
2626	Abertay RACON	56° 27.4' N 2° 40.6' W	<b>T(-)</b>		8		(3 cm).
2628 A 3129.5	Barry Sands, Monifieth	56° 28.8' N 2° 47.9' W	<b>Fl.Y.</b> period 5s fl. 1s, ec. 4s			Yellow beacon, yellow diamond (rhombus) daymark.	Visible 18°-28° Marks gas pipeline.
2632 A 3216	Arbroath, E. pier, S. elbow	56° 33.2' N 2° 35.0' W	<b>Fl.G.</b> period 3s	26 8	5	White tower; 30.	F.R. exhibited when harbor is closed. Fishing light. <b>Siren:</b> 3bl. ev. 60s (bl. 3s, si. 2s, bl. 3s, si. 2s, bl. 3s, si. 48s)
2633 A 3212	-Range, front	56° 33.2' N 2° 35.0' W	<b>F.R.</b>	23 7	5	White column; 13.	
2634 A 3212.1	--Rear, 50 meters 299°15' from front	56° 33.3' N 2° 35.2' W	<b>F.R.</b>	43 13	5	White column; 30.	
2636 A 3220	Scurdie Ness	56° 42.1' N 2° 26.3' W	<b>Fl.(3)W.</b> period 20s fl. 0.5s, ec. 2s fl. 0.5s, ec. 2s fl. 0.5s, ec. 14.5s	125 38	20	White tower; 128.	
	RACON		<b>T(-)</b>		14		(3 & 10 cm).
2640 A 3222	Montrose Range, front	56° 42.2' N 2° 27.4' W	<b>F.R.</b>	36 11	5	White twin pillars, red banded; 33.	
2644 A 3222.1	-Rear, N. side of entrance, 272 meters 271°31' from front	56° 42.2' N 2° 27.7' W	<b>F.R.</b>	59 18	5	White tower, red cupola; 62.	
2648 A 3223	Montrose inner Range, front	56° 42.1' N 2° 28.1' W	<b>F.G.</b>	69 21	5	Lattice metal tower, orange triangle, point up daymark; 66.	
2652 A 3223.1	-Rear, 180 meters 264°58' from front	56° 42.1' N 2° 28.3' W	<b>Dir.W.R.G.</b>	108 33	5	Lattice metal tower, orange triangle, point down daymark; 105.	Occasional Iso.G. 263°-264°, Al.W.G. 264°, Iso.G. - 265°, Al.W.R. 265°, Iso.R. -266°.
2656 A 3226	Johnshaven Range, front	56° 47.7' N 2° 20.1' W	<b>F.R.</b>	16 5		Metal post, yellow square daymark; 7.	
2660 A 3226.1	-Rear, 85 meters 316° from front	56° 47.6' N 2° 19.9' W	<b>F.G.</b>	66 20		Metal post, yellow square daymark; 10.	F.R. shown when unsafe to navigate.
2664 A 3228	Gourdon Range, front	56° 49.8' N 2° 17.2' W	<b>F.R.</b>	10 3	5	House, white rectangular daymark; 16.	F.G. shown when unsafe to navigate. Storm signals.
2668 A 3228.1	-Rear, 120 meters 358° from front	56° 49.8' N 2° 17.1' W	<b>F.R.</b>	98 30	5	White tower; 20.	
2672 A 3229	-W. pier No 1	56° 49.6' N 2° 17.2' W	<b>Fl.W.R.G.</b> period 3s fl. 1s, ec. 2s	16 5	W. 9 R. 7 G. 7	Metal column; 3.	G. 180°-344°, W. -354°, R. - 180°.
2676 A 3230	-E. pier, head	56° 49.7' N 2° 17.2' W	<b>Q.W.</b>	10 3	3	Metal column; 3.	
STONEHAVEN:							
2684 A 3238	-Outer breakwater, head	56° 57.6' N 2° 12.0' W	<b>Iso.W.R.G.</b> period 4s	23 7	5	Metal post; 7.	G. 214°-246°, W. -268°, R. - 280°.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>SCOTLAND-EAST COAST</b>							
2688 A 3240	-Inner side of harbor Range, front	56° 57.6' N 2° 12.2' W	<b>F.W.</b>	20 6	5	Mast; 16.	For use inside harbor only.
2692 A 3240.1	--Rear, 10 meters 273° from front	56° 57.6' N 2° 12.2' W	<b>F.R.</b>	26 8	5	Building, lantern; 23.	
2696 A 3246	Girdle Ness	57° 08.3' N 2° 02.9' W	<b>Fl.(2)W.</b> period 20s fl. 0.5s, ec. 2s fl. 0.5s, ec. 17s	184 56	22	White round tower; 121.	Obscured by Greg Ness when bearing more than about 20°-25°. <b>Dgps station.</b>
	RACON		<b>G(--+)</b>		25		(3 & 10 cm).
ABERDEEN:							
2700 A 3252	-N. pier, head	57° 08.7' N 2° 03.7' W	<b>Iso.G.</b> period 4s	36 11	10	White tower; 30.	Bell: 3 strokes ev. 12s.
			<b>F.</b>				
2704 A 3250	-S. breakwater, head	57° 08.7' N 2° 03.3' W	<b>Fl.(3)R.</b> period 8s fl. 1s, ec. 1s fl. 1s, ec. 1s fl. 1s, ec. 3s	75 23	7	White tower.	
2708 A 3253	-Old S. breakwater	57° 08.6' N 2° 03.7' W	<b>Q.R.</b>	10 3	2	Truncated concrete column.	
2710	Aberdeen Fairway Buoy, RACON	57° 09.3' N 2° 01.9' W	<b>T(-)</b> period 70s		7	(3cm).	
2712 A 3254	-Abercromby jetty, head	57° 08.5' N 2° 04.1' W	<b>Oc.G.</b> period 4s lt. 3s, ec. 1s	16 5	4	STARBOARD (IALAA) Green column, topmark; 10.	
2716 A 3256	-S. jetty, head	57° 08.5' N 2° 04.1' W	<b>Q.R.</b>	13 4	4	Grey metal post.	
2720 A 3258	-Torry Range, front	57° 08.4' N 2° 04.5' W	<b>F.R.</b>	46 14	5	White tower; 43.	Shows F.G. when unsafe to navigate.
2724 A 3258.1	--Rear, 220 meters 237°12' from front	57° 08.3' N 2° 04.7' W	<b>F.R.</b>	62 19	5	White tower; 46.	Shows F.G. when unsafe to navigate.
2728 A 3264	-Lower jetty, head	57° 08.5' N 2° 04.3' W	<b>Q.G.</b>	10 3	1	STARBOARD (IALAA) Green column, topmark.	
2736 A 3274	Don River, S. entrance point	57° 10.4' N 2° 04.7' W	<b>Fl.W.</b> period 3s fl. 0.5s, ec. 2.5s	52 16	5	White tower.	
2740 A 3280	Buchan Ness	57° 28.2' N 1° 46.5' W	<b>Fl.W.</b> period 5s fl. 0.3s, ec. 4.7s	131 40	18	White tower, red banded; 115.	
	RACON		<b>O(---)</b>		14		(3 & 10 cm).
PETERHEAD:							
2744 A 3284	-S. breakwater, head	57° 29.8' N 1° 46.5' W	<b>Fl.(2)R.</b> period 12s fl. 1s, ec. 1s fl. 1s, ec. 9s	79 24	7	White round metal tower, black base; 56.	
2748 A 3286	-N. breakwater, head	57° 29.8' N 1° 46.3' W	<b>Iso.R.G.</b> period 6s	62 19	8	White metal tripod; 13.	R. 171°-236°, G. -171°. <b>Horn:</b> 1bl. ev. 30s (bl. 3s, si. 27s)
2752 A 3282	-Kirktown Range, front	57° 30.2' N 1° 47.1' W	<b>Oc.R.</b> period 6s lt. 5s, ec. 1s	46 14	10	Latticed mast, fluorescent triangular daymark point up.	
2756 A 3282.1	--Rear, 120 meters 314° from front	57° 30.2' N 1° 47.1' W	<b>Oc.R.</b> period 6s lt. 5s, ec. 1s	69 21	10	Latticed mast, fluorescent orange triangular daymark point down, orange triangle, point down daymark.	Synchronized with front.
2776 A 3304	Ratray Head.	57° 36.6' N 1° 49.0' W	<b>Fl.(3)W.</b> period 30s fl. 0.7s, ec. 2s fl. 0.7s, ec. 2s fl. 0.7s, ec. 23.9s	92 28	18	White tower, brick top, granite bottom.	R. lights on masts.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>SCOTLAND-EAST COAST</b>							
	RACON		M(- -)		15		(3 & 10 cm).
2784 A 3308	Cairnbulg Briggs	57° 41.1' N 1° 56.5' W	FI.W. period 10s fl. 1s, ec. 9s	30 9	10	Red beacon; 33.	
	FRASERBURGH:						
2788 A 3312	-Balaclava, breakwater, head	57° 41.5' N 1° 59.6' W	FI.(2)G. period 8s fl. 0.7s, ec. 1.3s fl. 0.7s, ec. 5.3s	85 26	6	White masonry tower, red banded, dome; 69.	Visible 178°-326°.
2792 A 3312.2	-Spur, head	57° 41.5' N 1° 59.7' W	FI.G. period 6s fl. 0.3s, ec. 5.7s	10 3	5	White metal post; 7.	
2796 A 3314	-S. breakwater, head	57° 41.5' N 1° 59.7' W	FI.R. period 6s fl. 0.3s, ec. 5.7s	13 4	5	White metal post; 10.	Docking signals 130 meters W. and 220 meters NW. Secondary structure: metal column, red banded. .
			F.R.(vert.)				137m WNW on W pier. Shown when entry to the port is considered dangerous.
			2F.R.(vert.)				Shown when the port is closed.
2800 A 3316	-Middle jetty Range, front	57° 41.6' N 1° 60.0' W	Iso.R. period 2s	39 12	9	White mast, red banded; 30.	Range 1M by day.
2804 A 3316.1	--Rear, N. pier, root, 75 meters 291° from front	57° 41.6' N 1° 60.0' W	Iso.R. period 2s	56 17	9	Metal mast; 36.	Range 1M by day.
2808 A 3332	Kinnairds Head	57° 41.9' N 2° 00.2' W	FI.W. period 5s fl. 0.15s, ec. 4.85s	82 25	22	White tower; 33.	Visible 92°-297°.
	BANNFF BAY:						
2812 A 3348	-Macduff pier, head	57° 40.3' N 2° 30.0' W	FI.(2)W.R.G. period 6s fl. 1s, ec. 1s fl. 1s, ec. 3s	39 12	W. 9 R. 7 G. 9	White tower; 36.	G. 25°-115°, W. -174°, R. - 210°.
2816 A 3350	-Range, front	57° 40.3' N 2° 29.9' W	F.R.	92 28	3	Post, red triangle, point up daymark.	
2820 A 3350.1	--Rear, 220 meters 127° from front	57° 40.3' N 2° 29.9' W	F.R.	180 55	3	Post, red triangle, point up daymark; 16.	
2824 A 3364	Whitehills, pier, head	57° 40.8' N 2° 34.8' W	FI.W.R. period 3s fl. 0.3s, ec. 2.7s	23 7	W. 9 R. 6	White tower; 10.	R. 132°-212°, W. -245°.
2828 A 3368	Portsoy Range, front	57° 41.1' N 2° 41.4' W	FI.G. period 4s	66 20	3	Metal post, concrete block.	
2832 A 3368.1	-Rear, on hill, 173° from front	57° 41.2' N 2° 41.3' W	Q.G.	72 22	3	Black and white metal post, red triangle, point up daymark.	
	BUCKIE:						
2836 A 3391	-W. Muck	57° 41.1' N 2° 58.0' W	Q.R.	16 5	3	Tripodal; 16.	
2840 A 3394	-N. breakwater, 60 meters from head	57° 40.8' N 2° 57.7' W	Oc.R. period 10s lt. 7s, ec. 3s	49 15	15	White tower; 49.	Reserve light F.W.
2844 A 3396.1	--Cliff Terrace	57° 40.7' N 2° 57.4' W	Iso.W.G. period 2s	66 20	W. 16 G. 12	White column; 33.	G. 90°-110°, W. -225°.
2848 A 3392	-N. breakwater, head	57° 40.9' N 2° 57.6' W	FI.R. period 2s	20 6	4	Red metal post; 13.	
2856 A 3408	Lossiemouth, S. pier, head	57° 43.4' N 3° 16.7' W	FI.R. period 6s	36 11	5	Mast; 36.	2 F.R. range lights shown from middle jetty. Fishing light. Entry and storm signals.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>SCOTLAND-EAST COAST</b>							
HOPEMAN:							
2864 A 3416	-S. pier, head	57° 42.7' N 3° 26.3' W	<b>Oc.G.</b> period 4s lt. 3s, ec. 1s	26 8	4	Mast; 20.	F.R. lights are shown from 4 radio masts 1.5M eastward.
2868 A 3418	-Elbow of N. quay Range, front	57° 42.7' N 3° 26.1' W	<b>F.R.</b>	10 3			
2872 A 3418.1	--Rear, 10 meters 081° from front	57° 42.7' N 3° 26.1' W	<b>F.R.</b>	13 4		Post; 7.	
BURGHEAD:							
2876 A 3424	-N. pier, head	57° 42.1' N 3° 30.0' W	<b>Oc.W.</b> period 8s lt. 6s, ec. 2s	23 7	5	Concrete tower; 20.	
2880 A 3426	-Timber spur, head	57° 42.1' N 3° 29.9' W	<b>Q.R.</b>	10 3	3	Concrete structure; 10.	Visible from SW. only.
2884 A 3428	-S. pier, NW. corner	57° 42.1' N 3° 29.8' W	<b>Q.G.</b>	10 3	5	Wooden structure; 10.	Visible from SW. only.
2892 A 3436	Nairn, E. pier, head	57° 35.6' N 3° 51.6' W	<b>Oc.W.R.G.</b> period 4s lt. 3s, ec. 1s	20 6	5	Octagonal concrete tower; 16.	G. 359°30'-100°, W. -207°, R. -350°.
2896 A 3434	-W. pier, head	57° 35.6' N 3° 51.5' W	<b>Q.G.</b>	16 5	1	Grey post.	
FIRTH OF INVERNESS:							
2900 A 3440	-Chanonry	57° 34.5' N 4° 05.4' W	<b>Oc.W.</b> period 6s lt. 4.5s, ec. 1.5s	39 12	12	White tower; 43.	Visible 148°-73°.
2908 A 3442	-Avoch, breakwater, head	57° 34.0' N 4° 09.8' W	<b>2F.R.</b> (vert.)	23 7	5	Concrete column.	2 meters apart. Occasional.
2912 A 3444	-Inverness	57° 30.0' N 4° 13.2' W	<b>FI.W.R.</b> period 2s fl. 0.2s, ec. 1.8s	23 7	W. 5 R. 4	Red glass reinforced plastic(grp) fiberglass beacon; 16.	W. 78°-258°, R. -78°.
2916 A 3446	-Craigton Point	57° 30.1' N 4° 14.0' W	<b>FI.W.R.G.</b> period 4s fl. 0.7s, ec. 3.3s	20 6	W. 11 R. 7 G. 7	Building; 20.	W. 312°-48°, R. -64°, W. -85°, G. -104°.
RACON							
			<b>K(- -)</b>			13	On beacon marking center of bridge 330 meters ESE.(3 & 10 cm).
2920 A 3448	--On breakwater, W. side of river entrance	57° 29.7' N 4° 14.2' W	<b>FI.G.</b> period 2s fl. 0.5s, ec. 1.5s	26 8	4	Green latticed tower; 13.	
2922 A 3447.7	--Inner Beacon	57° 29.7' N 4° 14.0' W	<b>Q.R.</b>	10 3	4	Pile structure, red platform; 10.	
2924 A 3449	--Turning Beacon	57° 29.6' N 4° 14.1' W	<b>FI.R.</b> period 3s fl. 0.5s, ec. 2.5s	23 7	6		
2928 A 3454	--Thornbush wharf, N. head	57° 29.4' N 4° 14.2' W	<b>Q.G.</b>	20 6	4	Metal column.	
2932 A 3457	--New quay, N. head	57° 29.3' N 4° 13.8' W	<b>Q.R.</b>	16 5	3	Metal column.	
2936 A 3460	--Training wall, head	57° 29.2' N 4° 13.7' W	<b>FI.G.</b> period 2s	16 5	4	Black metal mast, white banded; 30.	
2938	Fairway Buoy	57° 40.0' N 3° 54.1' W	<b>L.FI.W.</b> period 10s			SAFE WATER Red and white, spherical.	
RACON							
			<b>M(- -)</b> period 75s			5	(3 cm).
2944 A 3492	-Nigg Ferry, jetty, SE. corner	57° 41.5' N 4° 01.3' W	<b>2F.G.</b> (vert.)	20 6	2	Metal structure; 13.	

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>SCOTLAND-EAST COAST</b>							
2952 A 3493	-Nigg Oil terminal, jetty, head	57° 41.5' N 4° 02.6' W	<b>Oc.G.</b> period 5s lt. 4s, ec. 1s	102 31	5	Grey lattice metal tower; 89.	Flood light.
2956 A 3493.2	--E., head	57° 41.6' N 4° 02.4' W	<b>2F.G.</b> (vert.)	30 9	4	Grey post, dolphin; 16.	2 meters apart.
2960 A 3493.3	--W., head	57° 41.6' N 4° 02.7' W	<b>2F.G.</b> (vert.)	30 9	4	Grey post, dolphin; 16.	2 meters apart.
2968 A 3498.2	--Off E. head	57° 41.2' N 4° 09.5' W	<b>Q.G.</b>	16 5	3	Dolphin.	
2972 A 3498.4	--Off W. head	57° 41.1' N 4° 09.9' W	<b>Fl.G.</b> period 4s fl. 0.5s, ec. 3.5s	16 5	3	Dolphin.	
2976 A 3499	-BNOC Quay, SE. corner	57° 41.1' N 4° 10.1' W	<b>Iso.G.</b> period 4s	30 9	6	Grey mast; 23.	
2980 A 3499.2	--SW. Corner	57° 41.1' N 4° 10.4' W	<b>Oc.G.</b> period 8s lt. 5s, ec. 3s	16 5	4		
2982 A 3503	-Balintore Harbor	57° 45.2' N 3° 54.6' W	<b>Fl.G.</b> period 5s fl. 0.5s, ec. 4.5s	16 5	5	Metal post, on harbor wall; 3.	End of jetty.
2984 A 3506	Tarbat Ness	57° 51.9' N 3° 46.6' W	<b>Fl.(4)W.</b> period 30s fl. 0.7s, ec. 2.1s fl. 0.7s, ec. 2.1s fl. 0.7s, ec. 2.1s fl. 0.7s, ec. 20.9s	174 53	18	White tower, red banded; 135.	
	RACON		<b>T(-)</b>		14		(3 & 10 cm).
2985 A 3508	-Portmahomack pier, head	57° 50.2' N 3° 49.8' W	<b>Fl.R.</b> period 5s	23 7	3	Grey column.	
2988 A 3522	Lybster, S. pier, head	58° 17.8' N 3° 17.4' W	<b>Oc.R.</b> period 6s lt. 4s, ec. 2s	33 10	3	White tower.	
2992 A 3521	Ben-a-chielt AVIATION LIGHT	58° 19.8' N 3° 22.8' W	<b>5F.R.</b> (vert.)	147 0 448		Mast.	
	WICK:						
3000 A 3528	-S. pier, head	58° 26.3' N 3° 04.6' W	<b>Fl.W.R.G.</b> period 3s fl. 0.5s, ec. 2.5s	39 12	W. 12 R. 9 G. 9	White octagonal tower; 36.	G. 253°-270°, W. -286°, R. -329°.
3002 A 3527	-288°30'	58° 26.6' N 3° 05.3' W	<b>Dir.Iso.W.R.G.</b> period 4s	30 9	W. 10 R. 7 G. 7	Metal column on n. end of bridge; 23.	G. 283°30'-287°12', W. -289°42', R. -293°30'.
3004 A 3534	-Near root of S. pier Range, front	58° 26.3' N 3° 04.9' W	<b>F.R.</b>	16 5		Mast; 10.	
3008 A 3534.1	--Rear, 20 meters 234° from front	58° 26.3' N 3° 04.9' W	<b>F.R.</b>	30 9		Red post; 16.	
3012 A 3544	Noss Head	58° 28.7' N 3° 03.0' W	<b>Fl.W.</b> period 20s fl. 0.5s, ec. 19.5s	174 53	18	White masonry tower; 59.	W. -45° (approx.).
<b>SCOTLAND-NORTH COAST</b>							
3016 A 3558	Duncansby Head	58° 38.6' N 3° 01.5' W	<b>Fl.W.</b> period 12s fl. 0.3s, ec. 11.7s	220 67	21	White tower; 36.	
	RACON		<b>T(-)</b>		16		(3 cm).
3020 A 3562	Pentland Skerries	58° 41.4' N 2° 55.5' W	<b>Fl.(3)W.</b> period 30s fl. 0.4s, ec. 5.6s fl. 0.4s, ec. 5.6s fl. 0.4s, ec. 17.6s	171 52	23	White tower; 118.	<b>AIS</b> (MMSI No 992351086).

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>SCOTLAND-NORTH COAST</b>							
3024 A 3608	Lother Rock	58° 43.8' N 2° 58.7' W	<b>Fl.W.</b> period 2s fl. 0.6s, ec. 1.4s	43 13	6	Framework structure; 39.	
	RACON		<b>M(- -)</b>		10		(3 & 10 cm).
3028 A 3608.5	South Ronaldsay, Burwick, breakwater, head	58° 44.4' N 2° 58.2' W	<b>2F.R.</b> (vert.)	26 8	5	Metal mast; 20.	2 meters apart.
3032 A 3568	Swilkie Point	58° 41.8' N 3° 07.0' W	<b>Fl.(2)W.</b> period 20s fl. 0.3s, ec. 3.6s fl. 0.3s, ec. 15.8s	105 32	20	White tower; 75.	<b>AIS</b> (MMSI No 992351092).
	STROMA:						
3036 A 3570	-Inner sound John O'Groats pier, head	58° 38.8' N 3° 04.1' W	<b>Fl.R.</b> period 3s fl. 0.4s, ec. 2.6s	13 4	2	White post.	<b>Radar reflector.</b>
3040 A 3574	Dunnet Head	58° 40.3' N 3° 22.5' W	<b>Fl.(4)W.</b> period 30s fl. 0.7s, ec. 2s fl. 0.7s, ec. 2s fl. 0.7s, ec. 2s fl. 0.7s, ec. 21.2s	344 105	23	White masonry tower.	
3052 A 3580	Thurso	58° 36.0' N 3° 31.0' W	<b>Q.G.</b>	16 5	4	Green post; 10.	Shown from Sep. 01 to Apr. 30.
3056 A 3582	-Range, front	58° 35.9' N 3° 30.7' W	<b>F.G.</b>	16 5	4	Grey post; 10.	
3060 A 3582.1	--Rear, 195° from front	58° 35.9' N 3° 30.7' W	<b>F.G.</b>	20 6	4	Grey mast; 16.	
3064 A 3584	Scrabster Harbor, E. pier, head	58° 36.7' N 3° 32.7' W	<b>2F.G.</b> (vert.)	20 6	4	White post; 10.	
3066 A 3583.5	--Layover Quay, head	58° 36.6' N 3° 32.7' W	<b>Q.R.</b>	20 6	4	Metal post; 10.	
3068 A 3583	-Outer pier	58° 36.6' N 3° 32.5' W	<b>Q.(2)G.</b> period 6s	26 8	4	Post.	
3072 A 3586	-W. pier, head	58° 36.7' N 3° 32.7' W	<b>2F.R.</b> (vert.)	13 4	4	Metal post; 10.	1 meter apart.
<b>SCOTLAND-ORKNEY ISLANDS</b>							
3074 A 8235	Foinhaven Oilfield, Storage Tanker 204/04	60° 19.0' N 4° 16.4' W	<b>Mo.(U)W.</b> period 15s		15	Storage tanker.	Reserve light range 10M. <b>Horn:</b> Mo.(U )3bl. ev. 30s (bl. 0.7s, si. 1s, bl. 0.7s, si. 1s, bl. 2.5s, si. 24.1s)
	Foinhaven Oilfield, Storage Tanker 204/04.		<b>Mo.(U)W.</b> period 15s		2		One light on each corner of platform. <b>Horn:</b> Mo.(U )3bl. ev. 30s (bl. 0.7s, si. 1s, bl. 0.7s, si. 1s, bl. 2.5s, si. 24.1s)
	RACON		<b>X(- • • -)</b>				(3 & 10 cm). <b>Horn:</b> Mo.(U )3bl. ev. 30s (bl. 0.7s, si. 1s, bl. 0.7s, si. 1s, bl. 2.5s, si. 24.1s)
3076 A 3607.5	Swona.	58° 44.2' N 3° 04.2' W	<b>Fl.W.</b> period 8s fl. 0.4s, ec. 7.6s	56 17	9	White concrete column; 20.	Visible 261°-210°.
3080 A 3607	-N. head	58° 45.1' N 3° 03.0' W	<b>Fl.(3)W.</b> period 10s fl. 0.5s, ec. 1s fl. 0.5s, ec. 1s fl. 0.5s, ec. 6.5s	52 16	10	Column; 7.	
3084 A 3600	Tor Ness	58° 46.7' N 3° 17.7' W	<b>Fl.W.</b> period 5s fl. 0.25s, ec. 4.75s	69 21	17	White tower; 26.	

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<b>SCOTLAND-ORKNEY ISLANDS</b>							
3088 A 3602	Cantick Head	58° 47.2' N 3° 07.8' W	<b>Fl.W.</b> period 20s fl. 0.4s, ec. 19.6s	115 35	13	White tower.	
SCAPA FLOW AND APPROACHES:							
3092 A 3604	-Ruff Reef, end of reef, off Cantick Head	58° 47.5' N 3° 07.8' W	<b>Fl.W.</b> period 10s fl. 1s, ec. 9s	33 10	6	Black beacon; 33.	
3096 A 3606	-Long Hope, South Ness pier, head	58° 48.1' N 3° 12.2' W	<b>Fl.W.R.G.</b> period 3s fl. 0.7s, ec. 2.3s	20 6	W. 7 R. 5 G. 5	White building; 16.	G. 82°-242°, W. -252°, R. -82°.
3100 A 3610	-Hoxa Head	58° 49.3' N 3° 02.1' W	<b>Fl.W.R.</b> period 3s fl. 0.3s, ec. 2.7s	49 15	W. 9 R. 6	White lattice metal tower; 23.	W. 26°-163°, R. -201°, W. -215°.
3104 A 3610.2	-Stanger Head	58° 50.0' N 3° 04.7' W	<b>Fl.R.</b> period 5s fl. 0.2s, ec. 4.8s	82 25	8	Column; 7.	
3108 A 3610.4	-Roan Head	58° 50.7' N 3° 03.9' W	<b>Fl.(2)R.</b> period 6s fl. 0.5s, ec. 1s fl. 0.5s, ec. 4s	39 12	7	White column; 6.	
3112 A 3610.6	-Nevi Skerry	58° 50.7' N 3° 02.6' W	<b>Fl.(2)W.</b> period 6s fl. 0.5s, ec. 1s fl. 0.5s, ec. 4s	23 7	6	ISOLATED DANGER Black beacon, black topmark, red banded, black base; 30.	
3116 A 3610.8	-Calf of Flotta	58° 51.3' N 3° 03.9' W	<b>Q.R.</b>	26 8	4	Column.	
3120 A 3610.9	-Flotta Marine Terminal, jetty No 1, T, E. head	58° 50.7' N 3° 06.8' W	<b>2F.R.(vert.)</b>	33 10	3		2 meters apart.
3124 A 3610.92	--T, W. head	58° 50.7' N 3° 06.9' W	<b>2F.R.(vert.)</b>	33 10	3		2 meters apart.
3128 A 3610.94	--E. dolphin	58° 50.8' N 3° 06.7' W	<b>Q.R.</b>	26 8	3		
3132 A 3610.96	--W. dolphin	58° 50.7' N 3° 07.1' W	<b>Q.R.</b>	26 8	3		
3136 A 3611	-Single Point Mooring Tower No 1	58° 52.2' N 3° 07.3' W	<b>Fl.Y.</b> period 5s fl. 0.5s, ec. 4.5s	39 12	3		
3140 A 3611.2	--No 2	58° 52.3' N 3° 05.8' W	<b>Fl.(4)Y.</b> period 15s fl. 0.5s, ec. 1.5s fl. 0.5s, ec. 1.5s fl. 0.5s, ec. 1.5s fl. 0.5s, ec. 8.5s	39 12	3		
3144 A 3612	-Gibraltar pier	58° 50.3' N 3° 07.8' W	<b>2F.G.(vert.)</b>	23 7	3	Metal post.	2 meters apart.
3146 A 3612.5	-Sutherland pier	58° 50.2' N 3° 07.9' W	<b>Q.G.</b>	26 8	3	Mast; 19.	
3148 A 3615	--Pier, head	58° 49.9' N 2° 57.5' W	<b>2F.G.(vert.)</b>	20 6	2	Metal post; 16.	2 meters apart.
3152 A 3616	--In village Range, front	58° 49.6' N 2° 57.5' W	<b>F.G.</b>	33 10	7	Metal mast, orange triangle, point up daymark; 13.	
3156 A 3616.1	--Rear, 86 meters 174° from front	58° 49.5' N 2° 57.6' W	<b>F.G.</b>	49 15	7	Metal mast, orange triangle, point up daymark; 13.	
3160 A 3614	--Needle Point	58° 50.1' N 2° 57.3' W	<b>Fl.G.</b> period 3s fl. 0.3s, ec. 2.7s	20 6	3		
3164 A 3626	-Rose Ness	58° 52.3' N 2° 49.9' W	<b>Fl.W.</b> period 6s fl. 0.5s, ec. 5.5s	79 24	8	White tower; 23.	

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<b>SCOTLAND-ORKNEY ISLANDS</b>							
3168 A 3632	-Scapa	58° 57.4' N 2° 58.3' W	<b>FI.G.</b> period 3s fl. 0.5s, ec. 2.5s	20 6	8	White metal mast; 16.	
3172 A 3635	-Barrel of Butter	58° 53.4' N 3° 07.5' W	<b>FI.(2)W.</b> period 10s fl. 1s, ec. 2s fl. 1s, ec. 6s	20 6	7	Round masonry tower, grey metal platform.	
3176 A 3636	-Cava, on The Calf	58° 53.2' N 3° 10.6' W	<b>FI.W.R.</b> period 3s fl. 0.3s, ec. 2.7s	36 11	W. 10 R. 8	White round tower; 26.	W. 351°-143°, R. -196°, W. -251°, R. -271°, W. -298°.
3180 A 3640	-Houton Range, front	58° 55.0' N 3° 11.5' W	<b>FI.G.</b> period 3s fl. 1s, ec. 2s	26 8		White post, black banded, red triangle, point up daymark; 20.	Visible 312°-320°.
3184 A 3640.1	--Rear, 200 meters 316°02' from front	58° 55.1' N 3° 11.6' W	<b>F.G.</b>	52 16		White post, black banded, red triangle, point up daymark; 16.	Visible 312°-320°.
3188 A 3641	-Houton Bay pier	58° 55.1' N 3° 11.0' W	<b>2F.R.</b> (vert.)	16 5	4	Mast; 13.	2 meters apart.
3192 A 3642	-RoRo Terminal	58° 55.0' N 3° 11.0' W	<b>Iso.R.</b> period 4s	23 7	5	Metal mast; 16.	
3196 A 3644	--Graemsey Island Range, front	58° 56.4' N 3° 18.5' W	<b>Iso.W.</b> period 3s	56 17	12	White tower; 39.	Visible 70°-255°. When within 1/2 mile of shore on range line, rear light disappears below foreground.
3200 A 3644.1	--Rear, NE. point of island 2.2 km. 104° from front	58° 56.1' N 3° 16.3' W	<b>Oc.W.R.</b> period 8s lt. 6s, ec. 2s	115 35	W. 19 R. 14	White tower; 108.	R. 97°-112°, W. -163°, R. -178°, W. -332°. Obscured locally on bearing 104° within 0.5M.
3204 A 3650	--Skerry of Ness	58° 56.9' N 3° 17.8' W	<b>FI.W.</b> period 4s fl. 0.3s, ec. 3.7s	23 7	7	White concrete column, platform; 33.	W. 165°-90°.
3208 A 3662	--N. pier, head	58° 57.8' N 3° 17.6' W	<b>FI.R.</b> period 3s fl. 0.5s, ec. 2.5s	26 8	5	Metal mast; 16.	
3212 A 3656	--In the town Range, front	58° 57.6' N 3° 18.0' W	<b>F.R.</b>	95 29	11	Metal post, white tower; 19.	Visible 307°-327°. Shown 24 hours.
3216 A 3656.1	--Rear, 55 meters 317° from front	58° 57.7' N 3° 18.1' W	<b>F.R.</b>	128 39	11	Metal post, white tower; 13.	Visible 307°-327°. Shown 24 hours.
3220 A 3654	--Pier extension, SE., head	58° 57.6' N 3° 17.8' W	<b>Iso.R.</b> period 6s	49 15	5	Lattice metal tower; 39.	
3224 A 3700	Brough head	59° 08.2' N 3° 20.3' W	<b>FI.(3)W.</b> period 25s fl. 0.1s, ec. 4s fl. 0.1s, ec. 4s fl. 0.1s, ec. 16.7s	171 52	18	White castellated tower, dwelling; 36.	<b>AIS</b> (MMSI No 992351101).
3228 A 3676	Copinsay	58° 53.8' N 2° 40.3' W	<b>FI.(5)W.</b> period 30s fl. 0.7s, ec. 2.5s fl. 0.7s, ec. 2.5s fl. 0.7s, ec. 2.5s fl. 0.7s, ec. 2.5s fl. 0.7s, ec. 16.5s	259 79	14	White tower; 52.	
3232 A 3680	Auskerry	59° 01.5' N 2° 34.3' W	<b>FI.W.</b> period 20s fl. 0.4s, ec. 19.6s	112 34	20	White tower; 112.	
3236 A 3684	Helliar Holm	59° 01.1' N 2° 54.1' W	<b>FI.W.R.G.</b> period 10s fl. 0.5s, ec. 9.5s	59 18	W. 14 R. 11 G. 11	White tower; 43.	G. 256°-276°, W. -292°, R. -98°, W. -116°, G. -154°.
3240 A 3685	Balfour, pier	59° 01.9' N 2° 54.4' W	<b>FI.(2)W.R.G.</b> period 5s fl. 0.5s, ec. 1s fl. 0.5s, ec. 3s	16 5	W. 3 R. 2 G. 2	Grey building; 10.	G. 270°-10°, W. -20°, R. -90°.
KIRKWALL:							
3244 A 3688	-Pier, head	58° 59.3' N 2° 57.6' W	<b>Iso.W.R.G.</b> period 5s	43 13	W. 15 R. 13 G. 13	White concrete tower, orange horizontal band.	G. 153°-183°, W. -192°, R. -210°.

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<b>SCOTLAND-ORKNEY ISLANDS</b>							
3246 A 3688.5	--E., head	58° 59.3' N 2° 57.5' W	<b>2F.G.</b> (vert.)	20 6	3	Metal mast.	2 meters apart.
3248 A 3693	-Harbor entrance, N	58° 59.2' N 2° 57.5' W	<b>2F.R.</b> (vert.)	20 6	1	Metal post.	2 meters apart.
3252 A 3694	-W. pier, head	58° 59.2' N 2° 57.5' W	<b>2F.G.</b> (vert.)	20 6	1	Metal post.	2 meters apart.
3254 A 3729	Bay of Backland	59° 09.4' N 2° 44.9' W	<b>Fl.R.</b> period 3s fl. 0.5s, ec. 2.5s	16 5	4	Metal post; 10.	Visible 192°-250°.
3264 A 3708	-Whitehall Pier, N., head	59° 08.6' N 2° 35.8' W	<b>2F.G.</b> (vert.)	26 8	4	Metal mast; 16.	2 meters apart.
3268 A 3706	Papa Stronsay, NE., head	59° 09.3' N 2° 34.9' W	<b>Fl.(4)W.</b> period 20s fl. 0.4s, ec. 1.6s fl. 0.4s, ec. 1.6s fl. 0.4s, ec. 1.6s fl. 0.4s, ec. 13.6s	26 8	9	White lattice metal tower; 16.	
3270 A 3715	Loth, RoRo Terminal, W. head	59° 11.5' N 2° 41.8' W	<b>2F.G.</b> (vert.)	26 8	4	Metal mast; 20.	2 meters apart.
3272 A 3716	Kettletoft, pier, head	59° 13.8' N 2° 35.8' W	<b>Fl.W.R.G.</b> period 3s fl. 0.5s, ec. 2.5s	23 7	W. 7 R. 5 G. 5	White tower; 19.	W. 351°-11°, R. -180°, G. -351°.
3276 A 3718	Start Point	59° 16.6' N 2° 22.6' W	<b>Fl.(2)W.</b> period 20s fl. 0.2s, ec. 3.8s fl. 0.2s, ec. 15.8s	79 24	18	White tower, black stripe; 75.	
3280 A 3722	North Ronaldsay	59° 23.4' N 2° 22.9' W	<b>Fl.W.</b> period 10s fl. 0.3s, ec. 9.7s	141 43	24	Red brick tower, two white bands; 138.	
	RACON		<b>T(-)</b>		14		(3 & 10 cm).
3284 A 3724	-Nouster, pier, head	59° 21.4' N 2° 26.3' W	<b>Q.R.</b>	16 5		Post.	
3288 A 3728	Calf Sound	59° 14.2' N 2° 45.8' W	<b>Fl.(3)W.R.G.</b> period 10s fl. 0.5s, ec. 1.5s fl. 0.5s, ec. 1.5s fl. 0.5s, ec. 5.5s	20 6	W. 8 R. 6 G. 6	White tower; 30.	R. 205°24'-214°54', W. -222°18', G. -300°48', W. -305°42'.
3290 A 3734	Rapness, RoRo Terminal, E. end	59° 14.9' N 2° 51.4' W	<b>2F.R.</b> (vert.)	26 8	4	Metal mast; 20.	2 meters apart.
3292 A 3736	Noup Head	59° 19.9' N 3° 04.2' W	<b>Fl.W.</b> period 30s fl. 0.2s, ec. 29.8s	259 79	20	White tower; 79.	Visible 335°-282°, Partially obscured 240°-275°.
3296 A 3737.2	Pierowall, E. pier, head	59° 19.3' N 2° 58.5' W	<b>Fl.W.R.G.</b> period 3s fl. 0.5s, ec. 2.5s	23 7	W. 11 R. 7 G. 7	Metal mast; 19.	G. 254°-276°, W. -291°, R. -308°, G. -215°.
3300 A 3737.4	-W. pier, head	59° 19.4' N 2° 58.5' W	<b>2F.R.</b> (vert.)	20 6	3	Metal mast; 16.	2 meters apart.
3304 A 3738	Moclett Bay, pier, head	59° 19.6' N 2° 53.5' W	<b>Fl.W.R.G.</b> period 5s fl. 1s, ec. 4s	23 7	W. 5 R. 3 G. 3	Grey building; 16.	G. 306°-341°, W. -40°, R. -74°.
3308 A 3740	Egilsay Pier, S. head	59° 09.3' N 2° 56.6' W	<b>Fl.G.</b> period 3s fl. 0.3s, ec. 2.7s	13 4	4	White structure, concrete base; 10.	
FAIR ISLE:							
3312 A 3750	-Skadan	59° 30.8' N 1° 39.2' W	<b>Fl.(4)W.</b> period 30s fl. 0.2s, ec. 3.6s fl. 0.2s, ec. 3.6s fl. 0.2s, ec. 3.6s fl. 0.2s, ec. 18.4s	105 32	22	White tower; 85.	Visible 260°-146°, Obscured 260°-282° close inshore.
3314 A 3753	-N. Haven	59° 32.2' N 1° 36.4' W	<b>Oc.W.R.G.</b> period 8s fl. 6s, ec. 2s	33 10	6	Metal column, concrete base; 10.	G. 203°36'-208°6', W. -211°6', R. -220°36'.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>SCOTLAND-ORKNEY ISLANDS</b>							
3316 A 3756	-Skroo	59° 33.1' N 1° 36.6' W	<b>Fl.(2)W.</b> period 30s fl. 0.6s, ec. 2s fl. 0.6s, ec. 26.8s	262 80	18	White tower; 46.	Visible 86°42'-358°.
<b>SCOTLAND-SHETLAND ISLANDS</b>							
3320 A 3766	Sumburgh Head	59° 51.2' N 1° 16.5' W	<b>Fl.(3)W.</b> period 30s fl. 0.4s, ec. 2.1s fl. 0.4s, ec. 2.1s fl. 0.4s, ec. 24.6s	299 91	23	White tower; 56.	<b>AIS</b> (MMSI No 992351304).V.Q.R. (occasional) on masts about 0.75 mile N. and 4.5 miles NW.
3322 A 3767	Pool of Virkie Marina, E. breakwater, head	59° 53.1' N 1° 17.0' W	<b>2F.G.</b> (vert.)	20 6	5	Metal post; 7.	2 meters apart.
3324 A 3772	Mousa, Perie Bard Islet	59° 59.8' N 1° 09.5' W	<b>Fl.W.</b> period 3s fl. 0.3s, ec. 2.7s	66 20	10	White lattice metal tower; 20.	
3326 A 3774	-Aithsvoe	60° 02.3' N 1° 12.9' W	<b>Fl.R.</b> period 3s	10 3	2	White metal post; 7.	Visible 305°-339°.
3340 A 3776	Kirkabister Ness	60° 07.2' N 1° 07.3' W	<b>Fl.(2)W.</b> period 10s fl. 0.5s, ec. 2s fl. 0.5s, ec. 7s	59 18	10	White building; 52.	
3342 A 3776.5	Bressay, Cro of Ham	60° 08.3' N 1° 07.5' W	<b>Fl.W.</b> period 3s fl. 0.3s, ec. 2.7s	39 12	3	White metal post; 3.	
LERWICK:							
3344 A 3778	-Twageos Point	60° 08.9' N 1° 08.0' W	<b>L.Fl.W.</b> period 6s fl. 2s, ec. 4s	26 8	6	White beacon.	
3348 A 3779	-Manyfield Ferry terminal, head	60° 09.4' N 1° 07.5' W	<b>Oc.W.R.G.</b> period 6s lt. 4s, ec. 2s	23 7	5		W. 8°-13°, R. -111°, G. -8°.
3352 A 3780	-Breakwater, N. head	60° 09.3' N 1° 08.3' W	<b>2F.R.</b> (vert.)	16 5	4	Column.	
3356 A 3782	-Victoria pier, elbow	60° 09.3' N 1° 08.3' W	<b>2F.G.</b> (vert.)	16 5	4	Column; 16.	
3360 A 3781	--Head	60° 09.3' N 1° 08.4' W	<b>Fl.R.</b> period 3s fl. 0.3s, ec. 2.7s	16 5	1		
3364 A 3783	-N. jetty	60° 09.4' N 1° 08.4' W	<b>Q.R.</b>	16 5	1		
3368 A 3783.4	-Oil jetty head, SW. corner	60° 09.5' N 1° 08.5' W	<b>Fl.W.</b> period 3s fl. 0.3s, ec. 2.7s	16 5	5	Post; 7.	
3372 A 3784	-North Ness	60° 09.6' N 1° 08.7' W	<b>Iso.W.G.</b> period 4s	13 4	5	Column; 10.	W. 24°-158°, G. -216°, W. - 301°.
3376 A 3786	-Loofa Baa, N. of North Ness	60° 09.8' N 1° 08.7' W	<b>Q.(6) + L.Fl.W.</b> period 15s	13 4	5	S. CARDINAL Yellow beacon, black topmark, black base; 20.	
3377 A 3787	-Shearers jetty	60° 09.6' N 1° 09.1' W	<b>2F.R.</b> (vert.)	13 4	1		
3378 A 3787.1	-Holmsgarth jetty, head	60° 09.7' N 1° 09.1' W	<b>Q.G.</b>	13 4	5	White metal post; 10.	
3380 A 3787.2	-Holmsgarth Quay, Ro-Ro terminal, head	60° 09.8' N 1° 09.3' W	<b>Fl.R.</b> period 3s fl. 0.3s, ec. 2.7s	30 9	2	Dolphin.	
3384 A 3787.4	-Shell jetty, head	60° 10.0' N 1° 09.4' W	<b>Q.(2)R.</b> period 8s fl. 0.3s, ec. 0.7s fl. 0.3s, ec. 6.7s	16 5	2		

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<b>SCOTLAND-SHETLAND ISLANDS</b>							
3388 A 3787.7	-North Harbor, pier, head	60° 10.3' N 1° 09.3' W	<b>FI.R.</b> period 3s fl. 0.3s, ec. 2.7s	36 11	2	Metal tower.	
			<b>F.R.</b>	36 11			
3392 A 3788	-N. entrance	60° 10.5' N 1° 09.4' W	<b>Dir.Oc.W.R.G.</b> period 6s lt. 5s, ec. 1s	89 27	8	Yellow triangle, point up daymark orange stripe.	R. 211°-214°, W. -216°, G. - 221°.
3394 A 3787.6	-Gremista Marina, S. breakwater, head	60° 10.2' N 1° 09.5' W	<b>Iso.R.</b> period 4s	10 3	2	White post; 7.	
3396 A 3790	-Greenhead	60° 10.9' N 1° 09.0' W	<b>Q.(4)R.</b> period 10s fl. 0.2s, ec. 0.8s fl. 0.2s, ec. 0.8s fl. 0.2s, ec. 0.8s fl. 0.2s, ec. 6.8s	13 4	3	Metal post; 13.	
3402 A 3787.8	-Heogan, new quay, head	60° 10.3' N 1° 08.5' W	<b>FI.G.</b> period 4s	20 6	3	White metal post; 10.	
3403 A 3793.5	-Skibby Bass	60° 11.1' N 1° 08.8' W	<b>FI.(2)R.</b> period 5s fl. 0.5s, ec. 0.5s fl. 0.5s, ec. 3.5s		3		
3404 A 3794	Rova Head, E. point	60° 11.4' N 1° 08.5' W	<b>FI.W.R.G.</b> period 4s	39 12	W. 12 R. 9 G. 9	White lattice metal tower; 23.	R. 90°-182°, W. -191°, G. - 213°, R. -241°, W. - 261°30', G. -9°, R. -40°. Synchronized with upper directional light.
			<b>Dir.FI.W.R.G.</b> period 4s	46 14	W. 16 R. 13 G. 13		R. 176°30'-182°, W. -191°, G. -196°30'.
3405 A 3795	Dales Voe	60° 11.8' N 1° 11.2' W	<b>FI.(2)W.R.G.</b> period 8s fl. 0.4s, ec. 1.4s fl. 0.4s, ec. 5.8s	16 5	W. 4 R. 3 G. 3	White metal post; 7.	G. 220°-227°, W. -233°, R. - 240°.
3406 A 3795.5	-Quay	60° 11.6' N 1° 10.6' W	<b>2F.R.</b> (vert.)	30 9	3	Metal column; 98.	2 meters apart.
3406.5 A 3795.6	Laxfirth, pier, head	60° 12.7' N 1° 12.1' W	<b>2F.G.</b> (vert.)	13 4	2	Post.	1 meter apart.
3407 A 3795.7	Hoo Stack	60° 15.0' N 1° 05.4' W	<b>FI.(4)W.R.G.</b> period 12s fl. 0.3s, ec. 1.7s fl. 0.3s, ec. 1.7s fl. 0.3s, ec. 1.7s fl. 0.3s, ec. 5.7s	131 40	W. 7 R. 5 G. 5	White lattice metal tower; 26.	R. 169°-180°, W. -184°, G. - 193°, W. -169°.
			<b>FI.(4)W.R.G.</b> period 12s	108 33	W. 9 R. 6 G. 6		R. 177°-180°, W. -184°, G. - 187°. Synchronized.
3408 A 3796	Moul of Eswick, 9.26 meters from N. extremity	60° 15.7' N 1° 05.9' W	<b>FI.W.R.G.</b> period 3s fl. 0.3s, ec. 2.7s	164 50	W. 9 R. 6 G. 6	White tower; 23.	R. 28°-200°, W. -207°, G. - 18°, W. -28°.
WHALSAY:							
3412 A 3802	-Symbister Ness, 549 meters from SW. point	60° 20.4' N 1° 02.3' W	<b>FI.(2)W.G.</b> period 12s fl. 0.5s, ec. 1.5s fl. 0.5s, ec. 9.5s	36 11	W. 8 G. 6	White tower; 23.	W. 354°-203°, G. -246°.
3413 A 3803.8	Marrister	60° 21.4' N 1° 01.4' W	<b>FI.G.</b> period 6s fl. 0.3s, ec. 5.7s	13 4	4	Green mast, platform; 13.	
3416 A 3804	-Suther Ness	60° 22.1' N 1° 00.2' W	<b>FI.W.R.G.</b> period 3s fl. 0.3s, ec. 2.7s	33 10	W. 10 R. 8 G. 8	White lattice metal tower; 23.	W. 12°-38°, R. -135°, W. - 143°, G. -158°, R. -173°, W. -206°, G. -240°.
3417 A 3804.2	-Wether Holm	60° 22.3' N 1° 01.3' W	<b>FI.W.</b> period 5s	20 6	9	White lattice metal tower; 16.	
3418 A 3805	-Laxo Voe, Ferry Terminal	60° 21.1' N 1° 10.3' W	<b>2F.G.</b> (vert.)	13 4	2	Grey metal mast; 16.	1 meter apart.

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<b>SCOTLAND-SHETLAND ISLANDS</b>							
3420 A 3807	Out Skerries	60° 25.5' N 0° 43.7' W	<b>FI.W.</b> period 20s fl. 0.2s, ec. 19.8s	144 44	20	White tower; 98.	
3424 A 3810	Muckle Skerry	60° 26.4' N 0° 51.8' W	<b>FI.(2)W.R.G.</b> period 10s fl. 0.5s, ec. 1s fl. 0.5s, ec. 8s	49 15	W. 7 R. 5 G. 5	White lattice metal tower; 16.	W. 46°-192°, R. -272°, G. -348°, W. -353°, R. -46°.
3426 A 3811	-Lunna Holm, S. entrance	60° 27.3' N 1° 02.5' W	<b>FI.(3)W.R.G.</b> period 15s	62 19	W. 10 R. 7 G. 7	White round tower; 26.	R. 43°6'-90°, W. -94°, G. -209°, W. -275°, R. -18°42'.
3428 A 3812	-Firths Voe	60° 27.3' N 1° 10.8' W	<b>Oc.W.R.G.</b> period 8s lt. 6s, ec. 2s	30 9	<b>W. 15</b> R. 10 G. 10	White tower; 26.	W. 189°-194°, G. -257°, W. -261°, R. -339°, W. -66°.
3429 A 3812.5	--Linga Island	60° 26.8' N 1° 09.1' W	<b>Q.(4)W.R.G.</b> period 8s	33 10	9	Concrete column; 7.	R. 52°-148°, G. -154°, W. -312°.
3429.5 A 3812.8	Rumble Rock	60° 28.2' N 1° 07.2' W	<b>FI.W.</b> period 10s fl. 0.5s, ec. 9.5s	26 8	4	Concrete column, square platform.	
	RACON		<b>O(---)</b>		8		(3 & 10 cm).
3430 A 3813.1	-Ulstá Ferry Terminal	60° 29.8' N 1° 09.5' W	<b>F.W.R.G.</b>	33 10	W. 4 R. 3 G. 3	Metal post.	G. 12°-26°15', W. -41°15', R. -52°30'.
3431 A 3813.5	-Toft, Ferry Terminal	60° 28.0' N 1° 12.4' W	<b>2F.R.</b> (vert.)	23 7	1	Metal post; 16.	Visible 85°-330°. 2 meters apart.
3432 A 3814	-Ness of Sound, W. side	60° 31.4' N 1° 11.2' W	<b>FI.(3)W.R.G.</b> period 12s fl. 0.3s, ec. 1s fl. 0.3s, ec. 1s fl. 0.3s, ec. 9.1s	59 18	W. 9 R. 6 G. 6	White tower; 26.	G. 306°18'-345°, W. -350°, R. -160°, W. -165°, G. -217°.
3436 A 3815	-Brother Island	60° 30.9' N 1° 14.1' W	<b>Dir.Q.(4)W.R.G.</b> period 8s	52 16	W. 10 R. 7 G. 7	Concrete column; 7.	G. 323°30'-328°, W. -330°, R. -333°30'.
3437 A 3815.3	--Mio Ness	60° 29.7' N 1° 13.7' W	<b>Q.(2)W.R.</b> period 10s	39 12	W. 7 R. 4	White round tower; 16.	W. 282°-238°, R. -282°.
3438 A 3815.6	--Tinga Skerry	60° 30.5' N 1° 14.8' W	<b>Q.(2)G.</b> period 10s	30 9	5	White round tower; 16.	
3440 A 3816	-Northern entrance, Bagi Stack	60° 43.5' N 1° 07.5' W	<b>FI.(4)W.</b> period 20s fl. 0.3s, ec. 1s fl. 0.3s, ec. 1s fl. 0.3s, ec. 1s fl. 0.3s, ec. 15.8s	148 45	10	White lattice metal tower; 23.	
3444 A 3817	--Gruney Island	60° 39.2' N 1° 18.2' W	<b>FI.W.R.</b> period 5s fl. 0.5s, ec. 4.5s	174 53	W. 8 R. 6	White tower; 23.	R. 64°-180°, W. -12°.
	RACON		<b>T(-)</b>		14		(3 & 10 cm).
3448 A 3817.5	--Point of Fethaland	60° 38.0' N 1° 18.7' W	<b>FI.(3)W.R.</b> period 15s	213 65	<b>W. 19</b> <b>R. 15</b>	White tower; 23.	R. 80°-103°, W. -160°, R. -206°, W. -340°.
3452 A 3818	--Muckle Holm	60° 34.8' N 1° 16.0' W	<b>FI.(4)W.</b> period 10s fl. 0.3s, ec. 1.7s fl. 0.3s, ec. 1.7s fl. 0.3s, ec. 1.7s fl. 0.3s, ec. 3.7s	105 32	10	White lattice metal tower; 23.	
3456 A 3819	--Little Holm	60° 33.4' N 1° 15.9' W	<b>Iso.W.</b> period 4s	39 12	6	White lattice metal tower; 23.	
3460 A 3820	--Outer Skerry	60° 33.0' N 1° 18.3' W	<b>FI.W.</b> period 6s fl. 1s, ec. 5s	39 12	8	White column, black banded.	
3464 A 3820.5	--Quey Firth	60° 31.4' N 1° 19.6' W	<b>Oc.W.R.G.</b> period 6s lt. 4s, ec. 2s	72 22	W. 12 R. 8 G. 8	White tower; 16.	W. 154°-290°, G. -327°, W. -334°, R. -85°.
3468 A 3821	--Lamba S., head	60° 30.7' N 1° 17.8' W	<b>FI.W.R.G.</b> period 3s fl. 0.3s, ec. 2.7s	98 30	W. 8 R. 5 G. 5	White tower; 26. secondary structure: concrete column; 7.	G. 234°30'-288°, W. -293°, R. -327°, W. -44°, R. -140°, W. -197°.

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<b>SCOTLAND-SHETLAND ISLANDS</b>							
			<b>Dir.FI.W.R.G.</b> period 3s	79 24	W. 10 R. 7 G. 7		G. 285°30'-288°, W. -293°, R. -295°30'. Synchronized.
3472 A 3822.5	-Little Roe	60° 30.0' N 1° 16.3' W	<b>FI.(3)W.R.</b> period 10s	52 16	W. 5 R. 4	White glass reinforced plastic(grp) fiberglass structure, orange banded; 16.	R. 36°-95°30', W. -36°.
3476 A 3822	-Gluss Isle Range, front	60° 29.8' N 1° 19.4' W	<b>F.W.</b>	128 39	19	Grey metal tower, square daymark; 105.	Day range 9M. Shown 24 hours.
3480 A 3822.1	--Rear, 0.75 mile 194°44' from front	60° 29.0' N 1° 19.8' W	<b>F.W.</b>	226 69	19	Grey metal tower, square daymark; 72.	Day range 9M. Shown 24 hours.
3484 A 3822.3	Fugla Ness, common front	60° 27.5' N 1° 19.4' W	<b>Iso.W.</b> period 4s	89 27	14	Grey tower, orange trapezium daymark; 33.	
3488 A 3822.29	--Rear, about 400 meters 212°17' from common front	60° 27.3' N 1° 19.7' W	<b>Iso.W.</b> period 4s	148 45	14	Grey metal tower, black trapezium daymark; 52.	Synchronized with front.
3492 A 3822.31	--Rear, about 410 meters 202°55' from common front	60° 27.3' N 1° 19.6' W	<b>Iso.W.</b> period 4s	148 45	14	Grey metal tower, black trapezium daymark; 39.	
3496 A 3823.1	Sella Ness	60° 26.8' N 1° 16.7' W	<b>Dir.Oc.W.R.G.</b> period 10s lt. 7.5s, ec. 2.5s	62 19	<b>W. 16</b> R. 3 G. 3	Grey lattice metal tower, building; 3.	Oc.G. 126°30'-130°30', Al.W.G. -132°30' (W. phase increasing with bearing), Oc.W. -134°30', Al.W.R. -136°30' (R. phase increasing with bearing), Oc.R. -143°30'. Range 2/1/1 by day.
3497 A 3823.3	-Tug jetty, E. side, head	60° 26.8' N 1° 16.2' W	<b>2F.G.</b> (vert.)	26 8	3	Column.	2 meters apart.
3498 A 3823.32	-Finger pier, head	60° 26.8' N 1° 16.2' W	<b>Iso.G.</b> period 4s	13 4	3	Metal column.	
3499 A 3823.34	-Garth Pier, N. arm, head	60° 26.7' N 1° 16.2' W	<b>FI.(2)G.</b> period 5s fl. 0.4s, ec. 1s fl. 0.4s, ec. 3.2s	13 4	3	Metal column.	
3501 A 3823.64	-Calback Ness, jetty	60° 27.4' N 1° 16.7' W	<b>2F.R.</b> (vert.)	30 9	3	Metal mast; 16.	2 meters apart.
3502 A 3823.7	-No 1 jetty, E	60° 27.3' N 1° 17.0' W	<b>2F.R.</b> (vert.)	23 7	3	Dolphin.	2 meters apart.
3503 A 3823.8	-No 4 jetty, W	60° 27.9' N 1° 18.3' W	<b>2F.R.</b> (vert.)	23 7	3	Dolphin.	2 meters apart.
3504 A 3822.6	-Calback Ness, N. point Skaw Taing Range, front	60° 29.1' N 1° 16.8' W	<b>Oc.W.R.G.</b> period 5s lt. 3s, ec. 2s	69 21	W. 8 R. 5 G. 5	Orange and white glass-reinforced plastic (grp) fiberglass structure; 16.	W. 49°-78°, G. -147°, W. -154°, R. -169°, W. -288°.
3505 A 3822.61	--Rear, 195 meters 150°30' from front.	60° 29.0' N 1° 16.7' W	<b>Oc.W.</b> period 5s lt. 3s, ec. 2s	115 35	8	White round tower, orange banded near top; 16.	Visible 145°-156°.
3512 A 3822.8	-Ness of Bardister	60° 28.2' N 1° 19.5' W	<b>Oc.W.R.G.</b> period 8s lt. 6s, ec. 2s	66 20	W. 9 R. 6 G. 6	Orange and white glass-reinforced plastic (grp) fiberglass structure; 16.	W. 180°30'-240°, R. -310°30', W. -314°30', G. -30°30'.
3516 A 3823.6	-Ungam Island	60° 27.3' N 1° 18.5' W	<b>V.Q.(2)W.</b> period 5s	7 2	2	White column; 7.	<b>Radar reflector.</b>
3520 A 3824	Vatsetter, Whitehill	60° 34.8' N 1° 00.2' W	<b>FI.W.R.</b> period 3s fl. 0.35s, ec. 2.65s	79 24	W. 9 R. 6	White lattice metal tower; 16.	W. 147°-163°, R. -211°, W. -352°, R. -3°.
3524 A 3828	Balta Islet, S. extremity	60° 44.4' N 0° 47.7' W	<b>FI.W.R.</b> period 10s	59 18	W. 10 R. 8	White lattice metal tower; 16.	W. 249°-8°, R. -58°, W. -154°.
3526 A 3829	-Marina, breakwater, head	60° 45.6' N 0° 50.2' W	<b>FI.R.</b> period 6s	7 2	2	Red post; 3.	

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<b>SCOTLAND-SHETLAND ISLANDS</b>							
3528 A 3830	Uyea Sound	60° 41.2' N 0° 55.5' W	<b>FI.(2)W.</b> period 8s fl. 0.3s, ec. 1.7s fl. 0.3s, ec. 5.7s	20 6	7	Lattice metal tower, on concrete structure; 26.	
3530 A 3830.85	Yell, Gutcher, Ferry Terminal	60° 40.4' N 0° 59.6' W	<b>2F.R.</b> (vert.)	23 7	2	Concrete pedestal; 3.	
			<b>Oc.W.R.G.</b> period 8s lt. 6s, ec. 2s	13 4	2		G. 222°-232°, W. -236°, R. - 246°.
3530.3 A 3830.4	Unst, Head of Mula	60° 40.8' N 0° 57.6' W	<b>FI.W.R.G.</b> period 5s	157 48	W. 10 R. 7 G. 7	Lattice metal tower; 10.	G. 292°-357°, W. -2°, R. - 157°, W. -161°30'.
3530.5 A 3830.5	Unst, Belmont, Ferry Terminal	60° 41.0' N 0° 58.1' W	<b>2F.G.</b> (vert.)	20 6	2	Grey metal mast; 16.	1 meter apart.
3540 A 3832	North Unst, Muckle Flugga	60° 51.3' N 0° 53.1' W	<b>FI.(2)W.</b> period 20s fl. 0.5s, ec. 3.5s fl. 0.5s, ec. 15.5s	217 66	22	White tower; 64.	Obstruction lights mark mast 3.9 miles SE.
3542 A 3834	Holm of Skaw	60° 49.9' N 0° 46.3' W	<b>FI.W.</b> period 5s fl. 0.5s, ec. 4.5s	26 8	8	White lattice metal tower; 20.	
3544 A 3838	Esha Ness	60° 29.3' N 1° 37.6' W	<b>FI.W.</b> period 12s fl. 0.4s, ec. 11.6s	200 61	25	White square tower; 40.	
3548 A 3840	Hillswick, S. end of Ness	60° 27.2' N 1° 29.7' W	<b>FI.(4)W.R.</b> period 15s fl. 0.5s, ec. 2s fl. 0.5s, ec. 2s fl. 0.5s, ec. 2s fl. 0.5s, ec. 7s	112 34	W. 9 R. 6	White lattice metal tower; 16.	W. 217°-93°, R. -114°.
3552 A 3844	Muckle Roe, Swarbacks Minn, N. side of entrance	60° 21.0' N 1° 27.1' W	<b>FI.W.R.</b> period 3s fl. 0.35s, ec. 2.65s	98 30	W. 9 R. 6	White lattice metal tower; 23.	W. 314°-41°, R. -75°, W. - 137°.
3553 A 3844.5	Aith, Breakwater, RNLI berth	60° 17.2' N 1° 22.3' W	<b>Q.G.</b>	16 5	3	Green post; 6.	
3554 A 3845	W. Burru Firth, Transport pier head	60° 17.7' N 1° 32.3' W	<b>2F.G.</b> (vert.)	13 4	4	Grey post.	1 meter apart.
3554.5 A 3844.9	W. Burra Firth. Outer.	60° 17.8' N 1° 33.6' W	<b>Oc.W.R.G.</b> period 8s	89 27	W. 9 R. 7 G. 7	White square masonry tower; 7.	G. 136°-142°, W. -150°, R. - 156°. Shown 24 hours.
3555 A 3845.5	-Inner	60° 17.8' N 1° 32.0' W	<b>F.W.R.G.</b>	30 9	W. 15 R. 9 G. 9	White square masonry tower; 7.	G. 95°-98°, W. -102°, R. - 105°. Shown 24 hours. Range 2M by day.
3556 A 3847	Ve Skerries	60° 22.4' N 1° 48.8' W	<b>FI.(2)W.</b> period 20s fl. 0.7s, ec. 2s fl. 0.7s, ec. 16.6s	56 17	11	White concrete tower; 52.	
	RACON		<b>T(-)</b>		15		(3 & 10 cm).
3560 A 3850	White Ness, Ram's Head	60° 12.0' N 1° 33.5' W	<b>FI.W.R.G.</b> period 8s fl. 1s, ec. 7s	56 17	W. 9 R. 6 G. 6	White lattice metal tower; 16.	G. 265°-355°, W. -12°, R. - 90°, W. 30°-136°, Partially obscured 30°- 90° beyond Vaila Island.
3561 A 3854.7	North Havra	60° 09.8' N 1° 20.3' W	<b>FI.(3)W.R.G.</b> period 12s	79 24	W. 11 R. 8 G. 8	White glass reinforced plastic(grp) fiberglass tower; 10.	G. 1°-53°30', W. -60°30', R. - 144°, G. -334°, W. - 337°30', R. -1°.
3562 A 3860	Foula Island South Ness	60° 06.8' N 2° 03.8' W	<b>FI.(3)W.</b> period 15s fl. 0.1s, ec. 2.8s fl. 0.1s, ec. 2.8s fl. 0.1s, ec. 9.1s	118 36	17	White tower.	Visible 221°-123°.
3564 A 3858	Fugla Ness	60° 06.4' N 1° 20.9' W	<b>FI.(2)W.R.G.</b> period 10s fl. 0.5s, ec. 1.5s fl. 0.5s, ec. 7.5s	66 20	W. 10 R. 7 G. 7	White tower; 26.	G. 14°-32°, W. -82°, R. -134°, W. -272°.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>SCOTLAND-NORTH COAST</b>							
3568 A 3868	Sule Skerry	59° 05.1' N 4° 24.5' W	<b>Fl.(2)W.</b> period 15s fl. 0.2s, ec. 3.6s fl. 0.2s, ec. 11s	112 34	21	White tower; 89.	AIS (MMSI No 992351082).
	RACON		<b>T(-)</b>		20		(3 & 10 cm).
3572 A 3870	Sula Sgeir	59° 05.7' N 6° 09.5' W	<b>Fl.W.</b> period 15s fl. 1s, ec. 14s	243 74	11	Square metal structure; 16.	
3574 A 3869	Rona	59° 07.3' N 5° 48.8' W	<b>Fl.(3)W.</b> period 20s fl. 0.2s, ec. 3.1s fl. 0.2s, ec. 3.1s fl. 0.2s, ec. 13.2s	374 114	22	White square tower, three buildings; 30.	AIS(MMSI No 992351081).
3576 A 3880	Cape Wrath	58° 37.5' N 4° 40.0' W	<b>Fl.(4)W.</b> period 30s fl. 0.5s, ec. 3.3s fl. 0.5s, ec. 3.3s fl. 0.5s, ec. 3.3s fl. 0.5s, ec. 18.1s	400 122	21	White tower; 66.	AIS(MMSI No 992351087).
3580 A 3874	Loch Eriboll White Head	58° 31.0' N 4° 38.8' W	<b>Fl.W.R.</b> period 10s fl. 0.5s, ec. 9.5s	62 19	W. 13 R. 10	White lattice metal tower; 16.	W. 30°-172°, R. -191°, W. -212°.
<b>SCOTLAND-WEST COAST</b>							
3584 A 3880.6	Rubha na Lecaig, (Ministers Point)	58° 27.4' N 5° 04.5' W	<b>Fl.(2)W.</b> period 10s fl. 0.3s, ec. 1s fl. 0.3s, ec. 8.4s	98 30	8	Concrete pedestal.	
3585 A 3881	Loch Bervie	58° 27.5' N 5° 03.0' W	<b>Dir.W.R.G.</b>	49 15	16	Yellow lattice tower.	F.G. 326°-326°30', A.I.G.W. -326°45', F.W. -327°15', A.I.R.W. -327°30', F.R. -328°. Flood light.
3588 A 3881.3	No 1	58° 27.3' N 5° 02.8' W	<b>Fl.R.</b> period 4s fl. 0.3s, ec. 3.7s			Red post; 7.	
3592 A 3881.4	No 2	58° 27.3' N 5° 02.8' W	<b>Q.R.</b>			Red post; 7.	
3596 A 3881.5	No 3	58° 27.3' N 5° 02.8' W	<b>Fl.G.</b> period 4s fl. 0.3s, ec. 3.7s			Green post; 7.	
3598 A 3881.7	-Creag Mhor	58° 27.0' N 5° 02.4' W	<b>Iso.W.R.G.</b> period 2s	52 16	4	Metal post.	R. 136°30'-146°30', W. -147°30', G. -157°30'.
3600 A 3882	Stoer Head	58° 14.4' N 5° 24.2' W	<b>Fl.W.</b> period 15s fl. 0.4s, ec. 14.6s	194 59	18	White tower; 46.	
3602 A 3882.7	Kyleskv, fishing jetty	58° 15.3' N 5° 01.0' W	<b>2F.G.(vert.)</b>	20 6	3	Grey mast; 16.	2 meters apart.
LOCH INVER:							
3604 A 3883	-Glas Leac	58° 08.7' N 5° 16.3' W	<b>Fl.W.R.G.</b> period 3s fl. 0.3s, ec. 2.7s	23 7	5	Concrete pedestal.	W. 71°-78°, R. -90°, G. -103°, W. -111°, R. -243°, W. -247°, G. -71°.
3606 A 3883.2	-Off Aird Ghlas	58° 08.9' N 5° 15.1' W	<b>Q.G.</b>	10 3	1	Black column, white banded.	
3608 A 3883.7	-Soyea Island	58° 08.5' N 5° 19.6' W	<b>Fl.(2)W.</b> period 10s fl. 0.3s, ec. 1s fl. 0.3s, ec. 8.4s	112 34	6	Yellow pedestal.	
3612 A 3886	Ullapool, Ferry pier	57° 53.6' N 5° 09.5' W	<b>2F.R.(vert.)</b>	20 6		Post; 10.	1 meter apart.
3612.5 A 3886.2	--Extension, SE. corner	57° 53.7' N 5° 09.3' W	<b>Fl.R.</b> period 3s	20 6	1	Post; 10.	

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>SCOTLAND-WEST COAST</b>							
3616 A 3885	Rubha Cadail	57° 55.5' N 5° 13.4' W	<b>FI.W.R.G.</b> period 6s fl. 1s, ec. 5s	36 11	W. 9 R. 6 G. 6	White tower; 30.	G. 311°-320°, W. -325°, R. -103°, W. -111°, G. -118°, W. -127°, R. -157°, W. -199°.
3620 A 3885.5	-Ullapool Point	57° 53.6' N 5° 09.9' W	<b>Iso.R.</b> period 4s	26 8	6	Grey metal mast; 19.	Visible 258°-108°.
3624 A 3887	Cailleach	57° 55.8' N 5° 24.2' W	<b>FI.(2)W.</b> period 12s fl. 0.3s, ec. 1.5s fl. 0.3s, ec. 9.9s	197 60	9	White lattice metal tower; 16.	Visible 15°-236°.
3626 A 3887.5	Aultbea, Aird pier, head	57° 50.3' N 5° 35.6' W	<b>2F.G.</b> (vert.)	26 8	3	Grey metal post; 20.	2 meters apart.
3628 A 3888	NATO POL Jetty, NW. corner	57° 49.7' N 5° 35.1' W	<b>2F.G.</b> (vert.)	16 5	2	Metal post.	
3632 A 3888.2	-Off N. head	57° 49.7' N 5° 35.1' W	<b>FI.G.</b> period 4s fl. 0.4s, ec. 3.6s			Dolphin.	
3636 A 3888.3	-Off S. head	57° 49.5' N 5° 35.1' W	<b>FI.G.</b> period 4s fl. 0.4s, ec. 3.6s			Dolphin.	
3640 A 3900	Rubha Reidh	57° 51.5' N 5° 48.7' W	<b>FI.(4)W.</b> period 15s fl. 0.4s, ec. 2.1s fl. 0.4s, ec. 2.1s fl. 0.4s, ec. 2.1s fl. 0.4s, ec. 7.1s	121 37	18	White tower, dwellings; 82.	<b>AIS</b> (MMSI No 992351302).
3644 A 3902	Loch Gairloch, Glas Eilean	57° 42.8' N 5° 42.4' W	<b>FI.W.R.G.</b> period 6s fl. 0.5s, ec. 5.5s	30 9	W. 6 R. 4 G. 4	Metal pedestal, concrete base.	W. 80°-102°, R. -296°, W. -333°, G. -80°.
3648 A 3903	-Gairloch pier	57° 42.6' N 5° 41.0' W	<b>Q.R.</b>	20 6	2	Grey column; 7.	
3660 A 3904	Rona	57° 34.7' N 5° 57.5' W	<b>FI.W.</b> period 12s fl. 0.2s, ec. 11.8s	226 69	12	White tower; 43.	<b>AIS</b> (MMSI No 992351045).Visible 50°-358°.
3664 A 3905.3	--SW. corner	57° 34.7' N 5° 57.9' W	<b>2F.R.</b> (vert.)				
3668 A 3905	-Sgeir Shuas	57° 35.0' N 5° 58.6' W	<b>FI.R.</b> period 2s fl. 0.3s, ec. 1.7s	20 6	3		Visible 70°-199°.
3672 A 3905.4	--No 9 Range, front	57° 34.4' N 5° 58.1' W	<b>Q.W.R.G.</b>	10 3	W. 4 R. 3 G. 3	White and orange beacon.	W. 135°-138°, R. -318°, G. -135°.
3676 A 3905.6	--Rear, No 10, 136°31' from front	57° 34.3' N 5° 57.9' W	<b>Iso.W.</b> period 6s	92 28	5	White beacon.	
3678 A 3905.35	--Undesignated beacon	57° 34.6' N 5° 58.0' W	<b>Q.R.</b>	10 3	3	Red beacon.	
3680 A 3905.8	--No 1	57° 34.3' N 5° 58.3' W	<b>FI.G.</b> period 3s fl. 0.3s, ec. 2.7s	299 91	3	Orange beacon.	
3684 A 3906	-Rubha Chuiltairbh	57° 34.1' N 5° 57.2' W	<b>FI.W.</b> period 3s fl. 0.3s, ec. 2.7s	20 6	5	White beacon.	
3688 A 3906.2	-No 11	57° 33.1' N 5° 57.6' W	<b>Q.Y.</b>	20 6	4	Orange beacon.	
3692 A 3906.4	-No 3	57° 32.6' N 5° 57.9' W	<b>FI.(2)W.</b> period 10s	30 9	4	White beacon, orange stripe.	
3696 A 3906.6	-No 12	57° 32.0' N 5° 58.1' W	<b>Q.R.</b>	16 5	3	Orange beacon.	
3700 A 3907	-Garbh Eilean, No 8	57° 30.7' N 5° 58.6' W	<b>FI.W.</b> period 3s fl. 0.3s, ec. 2.7s	26 8	5	White beacon.	

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>SCOTLAND-WEST COAST</b>							
3704 A 3916	Crowlin, Eilean Beag	57° 21.2' N 5° 51.4' W	<b>FI.W.</b> period 6s fl. 0.3s, ec. 5.7s	105 32	6	White lattice metal tower; 16.	
3708 A 3909.6	Eyre Point	57° 20.0' N 6° 01.3' W	<b>FI.W.R.</b> period 3s fl. 0.4s, ec. 2.6s	20 6	8	White lattice metal tower; 16.	W. 215°-267°, R. -288°, W. -63°.
3712 A 3909.2	Isle of Skye, Loch Sligachan, Sconser Ferry Terminal	57° 18.9' N 6° 06.6' W	<b>Q.R.</b>	26 8	3	Grey post.	
3720 A 3908	-Portree pier, head	57° 24.6' N 6° 11.4' W	<b>2F.R.</b> (vert.)	20 6	4	Post.	
3724 A 3910	-Ru Na Lachan	57° 29.0' N 5° 52.1' W	<b>Oc.W.R.</b> period 8s lt. 6s, ec. 2s	69 21	10	Lattice metal tower; 10.	W. 337°-22°, R. -117°, W. -162°.
3725 A 3910.2	-Applecross Pier	57° 28.4' N 5° 52.4' W	<b>FI.G.</b> period 3s fl. 0.3s, ec. 2.7s	10 3	3	STARBOARD (IALA A) Green post, topmark.	
3735 A 392	Broadford Bay, pier, head	57° 14.9' N 5° 54.3' W	<b>FI.G.</b> period 4s	13 4	3	Metal post; 6.	
3744 A 3925	Kyle Akin, jetty, head	57° 16.5' N 5° 45.2' W	<b>2F.R.</b> (vert.)	16 5	4		
3748 A 3926	Kyle Akin	57° 16.4' N 5° 43.4' W	<b>Q.R.</b>	20 6		Metal post.	
3756 A 3928	Kyle of Loch Alsh, W. side, pier, head	57° 16.8' N 5° 42.9' W	<b>2F.G.</b> (vert.)	20 6	5	Post; 10.	1 meter apart.
3760 A 3928.2	-E. side, pier, head	57° 16.7' N 5° 42.8' W	<b>2F.G.</b> (vert.)	20 6	4	Post; 10.	1 meter apart.
3762 A 3928.4	-Kyle, Old Ferry pontoons	57° 16.8' N 5° 43.0' W	<b>Iso.G.</b> period 2s	7 2	1	Grey post.	On extreme SW corner of pontoons. Shown March to October.
3764 A 3930	-Butec, jetty, W. head	57° 16.7' N 5° 42.5' W	<b>Oc.G.</b> period 6s lt. 4s, ec. 2s	16 5	3	White metal post; 10.	Red obstruction lights and floodlighting. Synchronized with E. end.
3768 A 3930.2	--E. head	57° 16.7' N 5° 42.5' W	<b>Oc.G.</b> period 6s lt. 4s, ec. 2s	16 5	3	White metal post; 10.	Synchronized with W. end.
3772 A 3927	-Eileanan Dubha	57° 16.6' N 5° 42.4' W	<b>FI.(2)W.</b> period 10s fl. 0.5s, ec. 1.5s fl. 0.5s, ec. 7.5s	30 9	8	White lattice metal tower; 16.	Partially obscured 104°-146° beyond adjacent islet.
3774 A 3927.5	--Island, close W	57° 16.6' N 5° 42.7' W	<b>FI.G.</b> period 6s fl. 0.3s, ec. 5.7s	16 5	4	Metal box, concrete base.	
3780 A 3960	-Sgeir Dhearg	57° 00.6' N 5° 49.6' W	<b>FI.(2)W.G.</b> period 8s	20 6	5	Grey beacon; 25.	G. 190°-55°, W. -190°.
3788 A 3952	-Point of Sleat	57° 01.1' N 6° 01.1' W	<b>FI.W.</b> period 3s fl. 1s, ec. 2s	66 20	9	White tower; 22.	
3790 A 3956	-Mallaig Harbor	57° 00.5' N 5° 49.5' W	<b>Iso.W.R.G.</b> period 4s	20 6	W. 9 R. 6 G. 6	Grey lattice metal tower, concrete base; 36.	G. 181°-185°, W. -197°, R. -201°. 3 F.R. (vert.), range 12nM, shown when vessels may not enter harbor.
			<b>FI.G.</b> period 3s fl. 1s, ec. 2s	46 14	6		
3792 A 3948	-Armadaile Bay	57° 03.9' N 5° 53.6' W	<b>Oc.R.</b> period 6s lt. 4s, ec. 2s	20 6	6	Building.	
	-Isle Ornsay:						
3800 A 3944	--Eilean Sionnach	57° 08.6' N 5° 46.8' W	<b>Oc.W.</b> period 8s lt. 6s, ec. 2s	59 18	12	White tower; 62.	Visible 157°-30°.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>SCOTLAND-WEST COAST</b>							
3804 A 3942	--Isle Ormsay, N., head	57° 09.1' N 5° 46.9' W	<b>Fl.R.</b> period 6s fl. 0.5s, ec. 5.5s	26 8	4	White lattice metal tower, stone column; 26.	
3808 A 3940	Sandaig, NW. point	57° 10.1' N 5° 42.3' W	<b>Fl.W.</b> period 6s fl. 0.3s, ec. 5.7s	43 13	8	White metal tower; 16.	
3812 A 3938	Kyle Rhea	57° 14.2' N 5° 40.0' W	<b>Fl.W.R.G.</b> period 3s fl. 0.5s, ec. 2.5s	23 7	W. 8 R. 5 G. 5	White tower; 23.	R. 170°-219°, W. -228°, G. - 338°, W. -346°, R. -44°.
3816 A 3934	Sgeir-na-Caillich	57° 15.6' N 5° 38.9' W	<b>Fl.(2)R.</b> period 6s fl. 0.3s, ec. 1s fl. 0.3s, ec. 4.4s	10 3	4	Beacon.	
<b>SCOTLAND-HEBRIDES</b>							
3820 A 3968	Butt of Lewis	58° 30.9' N 6° 15.7' W	<b>Fl.W.</b> period 5s fl. 0.2s, ec. 4.8s	171 52	21	Red masonry tower; 121.	<b>AIS</b> (MMSI No 002320799).Visible 56°- 320°. Dgps station.
3824 A 3972	Tiumpán Head	58° 15.7' N 6° 08.3' W	<b>Fl.(2)W.</b> period 15s fl. 0.4s, ec. 1.5s fl. 0.4s, ec. 12.7s	180 55	18	White tower; 69.	
STORNOWAY:							
3828 A 3976	-Arnish Point	58° 11.5' N 6° 22.2' W	<b>Fl.W.R.</b> period 10s fl. 0.5s, ec. 9.5s	56 17	W. 9 R. 7	White round tower; 46.	W. 88°-198°, R. -302°, W. - 13°.
3832 A 3978	-Stoney Field	58° 11.6' N 6° 21.3' W	<b>Fl.W.R.G.</b> period 3s fl. 1s, ec. 2s	26 8	11	Metal post; 10.	G. 320°-73°, R. -102°, W. - 109°, G. -205°.
3836 A 3977	-Sandwick Bay, NW. side	58° 12.2' N 6° 22.2' W	<b>Iso.W.R.G.</b> period 6s	33 10	10	Metal post; 10.	Iso.G. 336°-339°, Al.W.G. - 341°, Iso.W. -347°, Al.W.R. -349°, Iso.R. - 352°.
3840 A 3979	-Eilean na Gothail	58° 12.2' N 6° 22.9' W	<b>Fl.G.</b> period 6s fl. 0.5s, ec. 5.5s	26 8		Metal column; 10.	
3844 A 3980	-Patent slip jetty, outer head	58° 12.2' N 6° 22.9' W	<b>2F.G.</b> (vert.)			Concrete column; 7.	
3848 A 3981	-No 1 pier, SW. corner	58° 12.4' N 6° 23.3' W	<b>Q.W.R.G.</b>	16 5	11	Post; 10.	G. 307°-335°, W. -352°, R. - 19°.
3860 A 3984	Milaid	58° 01.1' N 6° 22.0' W	<b>Fl.W.</b> period 15s fl. 1s, ec. 14s	56 17	10	White lattice metal tower.	
3864 A 3986	Rubha Uisenish	57° 56.3' N 6° 28.3' W	<b>Fl.W.</b> period 5s fl. 0.4s, ec. 4.6s	79 24	11	White tower; 23.	
3868 A 3990	Eilean Glas	57° 51.4' N 6° 38.5' W	<b>Fl.(3)W.</b> period 20s fl. 0.5s, ec. 2s fl. 0.5s, ec. 2s fl. 0.5s, ec. 14.5s	141 43	18	White tower, red banded; 98.	<b>AIS</b> (MMSI No 992351150).
RACON					<b>16</b>		(3 & 10 cm).
3872 A 3992	-Dun Cor Mor	57° 51.0' N 6° 44.0' W	<b>Fl.R.</b> period 5s fl. 0.4s, ec. 4.6s	33 10	5	White painted structure; 6.	
EAST LOCH TARBERT:							
3876 A 3993	-Sgeir Ghlas	57° 52.4' N 6° 45.3' W	<b>Iso.W.R.G.</b> period 4s	30 9	W. 9 R. 6 G. 6	White round concrete tower; 18.	G. 282°-319°, W. -329°, R. - 153°, W. -164°, G. -171°.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>SCOTLAND-HEBRIDES</b>							
3881 A 3994.25	-Jane's Tower	57° 45.8' N 7° 02.0' W	<b>Q.(2)G.</b> period 5s	20 6	4	Concrete pedestal; 3.	Visible 318°-273°, Obscured -318° by Cairn. Q.W. and Oc.W. 3s in line 014°45' mark entrance to Leverburgh.
3882 A 3995	Berneray, breakwater, head	57° 42.9' N 7° 10.0' W	<b>Iso.R.</b> period 4s	20 6	4	Grey column; 17.	
3884 A 3995.6	-Vallay Island	57° 39.7' N 7° 26.3' W	<b>FI.W.R.G.</b> period 3s fl. 0.3s, ec. 2.7s	13 4	8	Grey column, white concrete base; 10.	W. 206°-85°, G. -140°, W. - 145°, R. -206°.
3885 A 3995.8	--Pier, head	57° 39.3' N 7° 26.3' W	<b>2F.G.</b> (vert.)	20 6	4	Grey metal column; 16.	Shown Mar. to Oct.
LOCH MADDY:							
3888 A 3996	-Weavers Point	57° 36.5' N 7° 06.0' W	<b>FI.W.</b> period 3s fl. 0.3s, ec. 2.7s	79 24	7	White lattice metal tower; 16.	
3892 A 3996.4	-Glas Eilean Mor	57° 35.9' N 7° 06.7' W	<b>FI.(2)G.</b> period 4s	26 8	5	Metal column.	
3894 A 3996.6	-Rubna Nam Pleac	57° 35.7' N 7° 06.7' W	<b>FI.R.</b> period 4s fl. 0.3s, ec. 3.7s	23 7	5	White post; 7.	
3896 A 3997	-Ruigh Liath, E. islet	57° 35.7' N 7° 08.4' W	<b>Q.G.</b>	20 6	5	Concrete column.	
3897 A 3998	-Vallaquie Island	57° 35.5' N 7° 09.3' W	<b>FI.(3)W.R.G.</b> period 8s fl. 0.4s, ec. 1.2s fl. 0.4s, ec. 1.2s fl. 0.4s, ec. 4.4s	36 11	5	Metal post.	G. 195°-205°, W. -210°, R. - 220°. Directional 207°30' (approx.).
			<b>FI.(3)W.R.G.</b> period 8s fl. 0.4s, ec. 1.2s fl. 0.4s, ec. 1.2s fl. 0.4s, ec. 4.4s	36 11	8		G. 249°-254°, W. -257°, R. - 262°. Directional 255°30' (approx.).
3898 A 3999.2	Lochmaddy Range, front	57° 35.8' N 7° 09.3' W	<b>2F.G.</b> (vert.)	26 8	4	Column; 26.	2 meters apart.
3898.1 A 3999.21	-Rear, 110 meters 298° from front	57° 35.8' N 7° 09.3' W	<b>Oc.G.</b> period 8s lt. 6s, ec. 2s	33 10	4	Column, dolphin; 13.	Visible 284°-304°.
3899 A 3999.5	Grimsay, Kallin Harbor, breakwater, NE. corner	57° 28.9' N 7° 12.3' W	<b>2F.R.</b> (vert.)	20 6	5	Grey metal column; 16.	1 meter apart.
3900 A 4004	Ushenish	57° 17.9' N 7° 11.6' W	<b>FI.W.</b> period 20s fl. 0.4s, ec. 19.6s	177 54	19	White tower; 39.	Visible 193°-18°.
3904 A 4000	Loch Carnan Range, front	57° 22.0' N 7° 16.0' W	<b>FI.R.</b> period 2s fl. 0.5s, ec. 1.5s	23 7	5	Post, white diamond (rhombus) daymark red stripe.	
3908 A 4000.1	-Rear, 58 meters 222° from front	57° 22.0' N 7° 16.3' W	<b>Iso.R.</b> period 10s	36 11	5	Post, white diamond (rhombus) daymark red stripe.	
3912 A 4028	Flannan Isles	58° 17.3' N 7° 35.4' W	<b>FI.(2)W.</b> period 30s fl. 0.2s, ec. 5.8s fl. 0.2s, ec. 23.8s	331 101	20	White tower; 75.	<b>AIS</b> (MMSI No 992351080). When close-up, obscured over two small arcs by islands W. of Eilean Mor.
3914 A 4030	Gasker Island	57° 59.1' N 7° 17.2' W	<b>FI.(3)W.</b> period 10s fl. 0.3s, ec. 1s fl. 0.3s, ec. 1s fl. 0.3s, ec. 7.1s	125 38	12	White lattice metal tower; 16.	
3916 A 4032	-Loch Carloway, Aird Laimishader	58° 17.1' N 6° 49.5' W	<b>FI.W.</b> period 6s fl. 0.3s, ec. 5.7s	207 63	7	White lattice metal tower.	Obscured by land in certain directions.
3920 A 4036	-Greinam, Breascleit Beacon	58° 13.3' N 6° 46.2' W	<b>FI.W.R.</b> period 6s fl. 0.5s, ec. 5.5s	26 8	W. 8 R. 7	White beacon; 18.	R. 143°-169°, W. -143°.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>SCOTLAND-HEBRIDES</b>							
3924 A 4008	Calvay	57° 08.5' N 7° 15.4' W	<b>Fl.(2)W.R.G.</b> period 10s fl. 0.5s, ec. 1.5s fl. 0.5s, ec. 7.5s	52 16	7	White latticed tower; 20.	<b>AIS</b> (MMSI No 992351139).W. 111°- 190°, G. -202°, W. -286°, R. -111°.
3928 A 4010.1	RoRo terminal, head	57° 09.2' N 7° 18.2' W	<b>2F.G.</b> (vert.)		3	Metal column.	
3932 A 4009.5	- ~N. side	57° 09.0' N 7° 17.0' W	<b>Fl.G.</b> period 6s	10 3	3	Metal post; 6.	
3933 A 4011.5	Acairseid Mhor Range, front	57° 03.9' N 7° 17.2' W	<b>Oc.R.</b> period 6s lt. 4s, ec. 2s	30 9	4	Orange post, white triangle, point up daymark.	
3934 A 4011.51	-Rear, 24 meters 285° from front	57° 03.9' N 7° 17.2' W	<b>Oc.R.</b> period 6s lt. 4s, ec. 2s	33 10	4	Orange post, white triangle, point down daymark.	
3935 A 4011.7	Isle of Barra, Ardveenish	57° 00.2' N 7° 24.4' W	<b>Oc.W.R.G.</b> period 3s	20 6	W. 9 R. 6 G. 6	Grey metal column; 13.	G. 300°-304°, W. -306°, R. - 310°.
3936 A 4012	Sgeir Dubh	56° 56.4' N 7° 28.9' W	<b>Q.(3)G.</b> period 6s fl. 0.2s, ec. 0.6s fl. 0.2s, ec. 0.6s fl. 0.2s, ec. 4.2s	20 6	5	White concrete column, green banded; 26.	
3937 A 4012.5	-Channel Rock	56° 56.2' N 7° 28.9' W	<b>Fl.W.R.</b> period 6s fl. 0.6s, ec. 5.4s	13 4	W. 6 R. 4	White concrete column, red banded; 23.	W. 121°30'-277°, R. - 121°30'.
3938	Castlebay S. Buoy	56° 56.1' N 7° 27.2' W	<b>Fl.(2)R.</b> period 8s			PORT (IALAA) R, can.	
	RACON		<b>T(-)</b> period 70s		5		(3 & 10 cm).
3939	Bo Vich Chaun Buoy	56° 56.2' N 7° 23.3' W	<b>Q.(6) + L.Fl.W.</b> period 15s			S. CARDINAL Yellow top, black base, pillar, topmark.	
	RACON		<b>M(-)</b> period 72s		5		(3 & 10 cm).
	CASTLEBAY:						
3944 A 4019	-Sgeir Liath Range, front	56° 56.7' N 7° 30.6' W	<b>F.Bu.</b>	30 9	6	White latticed tower, orange triangle, point up daymark; 16.	Visible 280°-310°.
3948 A 4019.1	--Rear, 457 meters 295° from front	56° 56.9' N 7° 31.0' W	<b>F.Bu.</b>	49 15	6	White latticed tower, orange triangle, point down daymark; 13.	Visible 291°-299°.
3952 A 4020	Barra Head	56° 47.1' N 7° 39.2' W	<b>Fl.W.</b> period 15s fl. 0.3s, ec. 14.7s	682 208	18	White masonry tower; 59.	<b>AIS</b> (MMSI No 992351095).Obscured 175°30'-215° by islands NE (approx.).
3954 A 4020.3	Haskier Island	57° 42.0' N 7° 41.3' W	<b>Fl.W.</b> period 20s fl. 0.3s, ec. 19.7s	144 44	22	White glass reinforced plastic(grp) fiberglass tower; 30.	<b>AIS</b> (MMSI No 992351140).
	RACON		<b>M(-)</b>		14		(3 & 10 cm).
3955 A 4020.5	Monach Islands	57° 31.6' N 7° 41.6' W	<b>Fl.(2)W.</b> period 15s	154 47	18	Red masonry tower; 135.	
3958 A 4047	St. Kilda Range, front	57° 48.4' N 8° 34.3' W	<b>Oc.W.</b> period 5s lt. 4s, ec. 1s	85 26	3	Cairn; 3.	
3959 A 4047.1	-Rear, 100 meters 270° from front	57° 48.3' N 8° 34.2' W	<b>Oc.W.</b> period 5s lt. 4s, ec. 1s	125 38	3	Cairn; 7.	Structure difficult to identify. Synchronized with front.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>SCOTLAND-WEST COAST</b>							
3960 A 4050	Trodday	57° 43.6' N 6° 17.9' W	<b>Fl.(2)W.R.G.</b> period 10s fl. 0.3s, ec. 1.5s fl. 0.3s, ec. 7.9s	171 52	W. 12 R. 9 G. 9	White lattice metal tower; 23.	<b>AIS</b> (MMSI No 992351084).W. 62°-88°, R. -130°, W. -322°, G. -62°.
SKYE:							
3964 A 4056	-Watnish Point	57° 36.5' N 6° 38.0' W	<b>Fl.W.</b> period 20s fl. 1s, ec. 19s	69 21	8	White lattice metal tower; 23.	
3968 A 4052	-Uig, pier, head	57° 35.1' N 6° 22.3' W	<b>Iso.W.R.G.</b> period 4s	30 9	W. 7 R. 4 G. 4	Grey mast.	W. 180°-6°, G. -50°, W. -73°, R. -180°.
3972 A 4058	--Uiginish Point	57° 26.8' N 6° 36.6' W	<b>Fl.W.R.G.</b> period 3s fl. 0.3s, ec. 2.7s	52 16	W. 7 R. 5 G. 5	White lattice metal tower; 16.	G. 41°-132°, W. -145°, R. -148°, W. -253°, R. -263°, W. -273°, G. -306°. Obscured by Fiadhairt Point 148°-167°.
3976 A 4060	--N. corner of pier	57° 26.5' N 6° 35.4' W	<b>2F.R.</b> (vert.)	16 5	3	Post.	When a vessel is expected.
3980 A 4064	-Ness (Neist) Point	57° 25.4' N 6° 47.3' W	<b>Fl.W.</b> period 5s fl. 0.3s, ec. 4.7s	141 43	16	White tower; 62.	<b>AIS</b> (MMSI No 992351301).
3984 A 4068	--Ardtreck Point	57° 20.4' N 6° 25.8' W	<b>Fl.W.</b> period 6s fl. 0.5s, ec. 5.5s	59 18	9	White lattice metal tower; 49.	
3986 A 4069	--Elgol	57° 08.8' N 6° 06.5' W	<b>Fl.G.</b> period 3s fl. 0.3s, ec. 2.7s	13 4	4	Grey post; 16.	
3988 A 4074	Sanday Island	57° 02.8' N 6° 28.0' W	<b>Fl.W.</b> period 10s	105 32	9	White tower; 30.	Visible 152°-61°.
3992 A 4076	Oigh Sgeir	56° 58.1' N 6° 40.8' W	<b>Fl.(3)W.</b> period 30s fl. 0.2s, ec. 3s fl. 0.2s, ec. 3s fl. 0.2s, ec. 23.4s	135 41	24	White tower; 128.	<b>AIS</b> (MMSI No 992351094).
	RACON		<b>T(-)</b>		14		(3 & 10 cm).
3996 A 4096	Skerryvore.	56° 19.4' N 7° 06.8' W	<b>Fl.W.</b> period 10s fl. 0.4s, ec. 9.6s	151 46	23	Grey granite tower; 157.	<b>AIS</b> (MMSI No 992351091).
	RACON		<b>M(-)</b>		18		(3 & 10 cm).
4000 A 4098	Dubh Artach	56° 08.0' N 6° 38.1' W	<b>Fl.(2)W.</b> period 30s fl. 0.2s, ec. 3.8s fl. 0.2s, ec. 25.8s	144 44	20	Grey granite tower, red banded; 125.	<b>AIS</b> (MMSI No 992351088).
4004 A 4092	Scarinish.	56° 30.0' N 6° 48.3' W	<b>Fl.W.</b> period 3s fl. 0.2s, ec. 2.8s	36 11	12	White square tower; 10.	Visible 210°-30°.
4005 A 4093	-Range, front	56° 30.6' N 6° 47.9' W	<b>F.R.</b>	26 8		Grey metal column; 16.	
4005.5 A 4093.1	--Rear, 100 meters 286°30' from front	56° 30.6' N 6° 47.8' W	<b>F.R.</b>	36 11		Grey metal column; 13.	
4008 A 4102	Eileanan Liathanaich (Grey Islands), SE. extremity	56° 20.6' N 6° 16.4' W	<b>Fl.W.R.</b> period 6s fl. 0.3s, ec. 5.7s	39 12	W. 8 R. 6	White latticed tower; 16.	R. 88°-108°, W. -88°.
4012 A 4080	Eigg, on E. point of Eilean Chathastail	56° 52.3' N 6° 07.3' W	<b>Fl.W.</b> period 6s fl. 0.3s, ec. 5.7s	79 24	8	White tower; 26.	Visible 181°-45°.
4016 A 4082	Ardnamurchan	56° 43.6' N 6° 13.6' W	<b>Fl.(2)W.</b> period 20s fl. 0.5s, ec. 2s fl. 0.5s, ec. 17s	180 55	18	Grey granite tower; 118.	<b>AIS</b> (MMSI No 992351046).Visible 2°-217°.
4020 A 4084	Cairns of Coll, Suil Ghorm	56° 42.3' N 6° 26.7' W	<b>Fl.W.</b> period 12s fl. 0.5s, ec. 11.5s	75 23	10	White tower; 25.	

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<b>SCOTLAND-WEST COAST</b>							
4024 A 4087	-Loch Eatharna, Arinagour, Pier, near head	56° 36.9' N 6° 31.4' W	<b>2F.R.</b> (vert.)	39 12	3	Grey metal column; 26.	1.5 meters apart.
SOUND OF MULL:							
4028 A 4107	-Ardmore Point	56° 39.4' N 6° 07.7' W	<b>Fl.(2)W.</b> period 10s fl. 0.8s, ec. 2.3s fl. 0.8s, ec. 6.1s	59 18	13	White lattice metal tower; 16.	
4030 A 4109	-Kilchoan, Mingary, pier, near head	56° 41.3' N 6° 05.6' W	<b>Q.R.</b>	26 8	3	Grey post.	
4032 A 4112	-Rubha nan Gall	56° 38.3' N 6° 04.0' W	<b>Fl.W.</b> period 3s fl. 0.3s, ec. 2.7s	56 17	10	White tower; 62.	
4036 A 4122	-Eileanan Glasa (Green Island), Dearg Sgeir	56° 32.3' N 5° 54.8' W	<b>Fl.W.</b> period 6s fl. 0.3s, ec. 5.7s	23 7	8	White lattice metal tower; 23.	
4040 A 4124	-Ardtornish Point	56° 31.1' N 5° 45.2' W	<b>Fl.(2)W.R.G.</b> period 10s fl. 0.3s, ec. 1.7s fl. 0.3s, ec. 7.7s	26 8	W. 8 R. 6 G. 6	White lattice metal tower; 16.	G. 185°-301°, W. -308°, R. - 342°, W. -57°, R. -95°, W. -109°, G. -154°.
4042 A 4125	-Lochaline	56° 32.2' N 5° 46.5' W	<b>2F.R.</b> (vert.)	13 4	3	Metal post.	2 meters apart.
4043 A 4125.3	-Beacon	56° 32.4' N 5° 46.5' W	<b>Dir.Oc.W.R.G.</b> period 6s		4	Orange concrete plinth; 7.	G. 353°-356°, W. -358°, R. - 2°.
4044 A 4126	-Grey Rocks	56° 29.8' N 5° 42.8' W	<b>Fl.W.</b> period 3s fl. 0.3s, ec. 2.7s	36 11	6	White latticed tower; 20.	
4048 A 4127	Craignure Range, front	56° 28.3' N 5° 42.3' W	<b>F.R.</b>	33 10		Concrete mast.	
4052 A 4127.1	-Rear, 150 meters 244° from front	56° 28.2' N 5° 42.4' W	<b>F.R.</b>	39 12		Concrete mast.	
4056 A 4174	Duart Point, William Black Memorial Tower	56° 26.8' N 5° 38.8' W	<b>Fl.(3)W.R.</b> period 18s fl. 0.5s, ec. 1.5s fl. 0.5s, ec. 1.5s fl. 0.5s, ec. 13.5s	46 14	W. 5 R. 3	Grey granite building; 30.	W. 162°-261°, R. -275°, W. - 353°, R. -8°30'.
4058 A 4174.5	Loch Spelve	56° 23.2' N 5° 42.0' W	<b>Fl.G.</b> period 5s	10 3	2	Metal post, green triangle, point up daymark.	
LOCH CRENAN:							
4060 A 4164	-Off Airds Point	56° 32.2' N 5° 25.2' W	<b>Fl.W.R.G.</b> period 2s fl. 0.3s, ec. 1.7s	7 2	W. 3 R. 1 G. 1	Red column.	R. 196°-246°, W. -258°, G. - 41°, W. -58°, R. -93°, W. - 139°.
4064 A 4165	-Eriska	56° 32.2' N 5° 24.1' W	<b>Q.G.</b>	7 2	2	Green column.	Visible 128°-329°.
4068 A 4172	Lady's Rock	56° 26.9' N 5° 37.0' W	<b>Fl.W.</b> period 6s fl. 0.5s, ec. 5.5s	39 12	5	Red lattice metal tower, white concrete base; 39.	<b>AIS</b> (MMSI No 992351093).
4072 A 4170	Lismore	56° 27.3' N 5° 36.4' W	<b>Fl.W.</b> period 10s fl. 0.2s, ec. 9.8s	102 31	17	White tower; 85.	Visible 237°-208°.
4076 A 4160	Sgeir Bhuidhe	56° 33.6' N 5° 24.6' W	<b>Fl.(2)W.R.</b> period 7s fl. 0.5s, ec. 1.5s fl. 0.5s, ec. 4.5s	26 8	W. 9 R. 6	White tower, concrete base; 26.	W. 13°30'-184°, R. -220°.
LOCH LINNHE:							
4080 A 4132	-Corran Point	56° 43.3' N 5° 14.5' W	<b>Iso.W.R.G.</b> period 4s	39 12	W. 10 R. 7 G. 7	White tower; 43.	R. 132°-195°, W. -215°, G. - 20°, W. -30°, R. -69°.
4082 A 4132.4	-Pier, head	56° 43.4' N 5° 14.6' W	<b>Fl.R.</b> period 5s	23 7	3	Grey mast; 26.	
4084 A 4133	-Corran Narrows NE	56° 43.6' N 5° 13.9' W	<b>Fl.W.</b> period 5s fl. 0.5s, ec. 4.5s	13 4	4	White lattice metal tower; 13.	Visible 2°-214°.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>SCOTLAND-WEST COAST</b>							
			<b>Dir.W.R.G.</b>	13 4	4		Iso. G. 28°30'-30°30', Al.W.G. -31°30', Iso.W. - 32°30', Al.W.R. -33°30', Iso.R. -35°30'. Day range 1M.
4092 A 4140	-Corpach, entrance to Caledonian Canal lock	56° 50.5' N 5° 07.4' W	<b>Iso.W.R.G.</b> period 4s	20 6	5	White tower, black top; 20.	G. 287°-310°, W. -335°, R. - 30°.
4093 A 4150	-Glensanda Quarry Berth, jetty, SW. corner	56° 34.1' N 5° 32.0' W	<b>Fl.R.</b> period 3s fl. 0.6s, ec. 2.4s	16 5	4	Metal post; 7.	
4094 A 4150.2	--NE. corner	56° 34.1' N 5° 31.9' W	<b>Fl.R.</b> period 3s fl. 0.6s, ec. 2.4s	16 5	4	Metal post; 7.	
4095 A 4151	-Breakwater, head	56° 33.9' N 5° 32.3' W	<b>2F.R.</b> (vert.)	16 5	3	Metal post; 10.	1 meter apart.
DUNSTAFFNAGE BAY:							
4096 A 4175.4	-Pier, NE. head	56° 27.2' N 5° 26.2' W	<b>2F.G.</b> (vert.)	13 4	2	Pontoon.	
OBAN:							
4100 A 4176	-Kerrera, Northspit, W. side of entrance	56° 25.5' N 5° 29.6' W	<b>Fl.R.</b> period 3s fl. 0.3s, ec. 2.7s	30 9	5	White concrete column, red banded; 33.	
4104 A 4178	-Dunollie	56° 25.4' N 5° 29.0' W	<b>Fl.(2)W.R.G.</b> period 6s fl. 0.6s, ec. 1s fl. 0.6s, ec. 3.8s	23 7	W. 8 R. 6 G. 6	Masonry tower; 20.	G. 351°-20°, W. -47°, R. - 120°, W. -138°, G. -143°.
4105 A 4179	-Rubh'a' Chruidh	56° 25.3' N 5° 29.3' W	<b>Q.R.</b>	10 3	4	White post, platform; 10.	
4108 A 4180	-Middle of N. pier	56° 24.9' N 5° 28.5' W	<b>2F.G.</b> (vert.)	26 8	4	Metal column; 20.	
4112 A 4183	-N. Lighthouse, Commissioner's pier	56° 24.7' N 5° 28.9' W	<b>2F.G.</b> (vert.)	23 7	4	Metal post; 13.	
4120 A 4186	Sgeirean Dubha, Sound of Kerrera, 274 meters from shore	56° 22.8' N 5° 32.3' W	<b>Fl.(2)W.</b> period 12s fl. 0.5s, ec. 1.5s fl. 0.5s, ec. 9.5s	23 7	5	White lattice metal tower, concrete base; 23.	
4128 A 4190	Fladda	56° 14.9' N 5° 40.8' W	<b>Fl.(2)W.R.G.</b> period 9s fl. 0.4s, ec. 1.6s fl. 0.4s, ec. 6.6s	43 13	W. 11 R. 9 G. 9	White tower; 43.	R. 169°-186°, W. -337°, G. - 344°, W. -356°, R. -26°.
4132 A 4192	Dubh Sgeir	56° 14.8' N 5° 40.2' W	<b>Fl.W.R.G.</b> period 6s fl. 0.5s, ec. 5.5s	30 9	W. 6 R. 4 G. 4	White latticed tower; 23.	W. 2°-12°, R. -30°, W. -201°, G. -2°.
RACON							
			<b>M(- -)</b>		5		(3 & 10 cm).
4136 A 4196	Isles of the Sea	56° 13.0' N 5° 49.1' W	<b>Fl.W.</b> period 6s fl. 0.5s, ec. 5.5s	79 24	9	White lattice metal tower; 16.	Partially obscured 215°- 240°.
4140 A 4200	Scalasaig, Colonsay, S. of harbor, head	56° 04.0' N 6° 10.9' W	<b>Fl.(2)W.R.</b> period 10s fl. 0.5s, ec. 1.5s fl. 0.5s, ec. 7.5s	26 8	W. 8 R. 6	White lattice metal tower; 16.	R. 108°-230°, W. -337°, R. - 354°.
4144 A 4202	-Pier head Range, front	56° 04.1' N 6° 11.0' W	<b>Iso.G.</b> period 4s	26 8	2	Concrete column; 19.	For use of ferries only.
4148 A 4202.1	--Rear, 60 meters 262° from front	56° 04.1' N 6° 11.1' W	<b>Iso.G.</b> period 4s	33 10	2	Concrete column; 27.	
LOCH MELFORT:							
4150 A 4205	-Fearnach Bay, pier	56° 16.1' N 5° 30.2' W	<b>F.R.</b>	20 6	3	Metal mast; 30.	Private. Shown Apr. 1 to Oct. 31. Directional light.
4151 A 4206	-Craobh Marina	56° 12.8' N 5° 33.5' W	<b>Iso.W.R.G.</b> period 5s	33 10	W. 5 R. 3 G. 3	Metal structure.	G. 114°-162°, W. -183°, R. - 200°.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>SCOTLAND-WEST COAST</b>							
SOUND OF JURA:							
4152 A 4208	-Reisa an t-Struith	56° 07.8' N 5° 38.9' W	<b>Fl.(2)W.</b> period 12s fl. 0.5s, ec. 1.5s fl. 0.5s, ec. 9.5s	39 12	7	White lattice metal tower; 23.	
4156 A 4212	--27 meters E. of lock entrance	56° 05.5' N 5° 33.3' W	<b>Fl.W.G.</b> period 3s fl. 0.3s, ec. 2.7s	26 8	4	White tower, red banded; 21.	W. 114°-146°, G. -280°.
4160 A 4214	--E. wing of lock entrance	56° 05.5' N 5° 33.3' W	<b>2F.R.</b> (vert.)	39 12		Mast; 23.	
4164 A 4218	--W. wing of lock entrance	56° 05.5' N 5° 33.3' W	<b>2F.G.</b> (vert.)	39 12		Mast; 23.	
4168 A 4226	-Ruadh Sgeir	56° 04.3' N 5° 39.8' W	<b>Fl.W.</b> period 6s fl. 0.5s, ec. 5.5s	49 15	9	White tower; 23.	
4172 A 4230	-Skervuile	55° 52.5' N 5° 49.9' W	<b>Fl.W.</b> period 15s fl. 1s, ec. 14s	72 22	9	White tower; 83.	
4176 A 4230.6	-Eilean nan Gabhar, S. point	55° 50.0' N 5° 56.2' W	<b>Fl.W.</b> period 5s fl. 0.5s, ec. 4.5s	30 9	8	White lattice metal tower; 15.	Visible 225°-10°.
4180 A 4232	-Na Cuiltean, off SE. point of Jura	55° 48.6' N 5° 54.9' W	<b>Fl.W.</b> period 10s fl. 0.5s, ec. 9.5s	30 9	9	White lattice metal tower; 16.	
4182 A 4259	Gahmna Gigha	55° 43.8' N 5° 41.1' W	<b>Fl.(2)W.</b> period 6s fl. 0.3s, ec. 1.4s fl. 0.3s, ec. 4s	23 7	5	Concrete column; 16.	
WEST LOCH TARBERT:							
4184 A 4260	-Dunskeig Bay	55° 45.2' N 5° 35.0' W	<b>Q.(2)W.</b> period 10s	36 11	8	Silver metal post; 10.	
4188 A 4262	-Eileen Triaghe	55° 45.4' N 5° 35.7' W	<b>Fl.(2)R.</b> period 5s	16 5	3	Red post.	<b>Radar reflector.</b>
4192 A 4263	-Corran	55° 46.1' N 5° 34.3' W	<b>Q.G.</b>	10 3	3	Green post.	<b>Radar reflector.</b>
4196 A 4264	-Sgeir Mhein	55° 47.1' N 5° 32.4' W	<b>Q.R.</b>	10 3	3	Red post.	<b>Radar reflector.</b>
4200 A 4265	-Black Rocks	55° 47.9' N 5° 30.2' W	<b>Q.G.</b>		3	Green post.	<b>Radar reflector.</b>
4204 A 4266.4	-Kennacraig, ferry terminal, head	55° 48.4' N 5° 29.0' W	<b>2F.G.</b> (vert.)	26 8	3	Silver metal post, dolphin; 7.	1 meter apart.
4206 A 4268	Machrihanish Airfield, AVIATION LIGHT	55° 26.4' N 5° 42.7' W	<b>Mo.(MH)R.</b>	174 53		Identifying beacon.	Occasional.
4208 A 4236	Rhuda Mhail.	55° 56.2' N 6° 07.4' W	<b>Fl.(3)W.</b> period 15s	148 45	19	White tower; 113.	
4212 A 4237	Carragh an t'Struith	55° 52.3' N 6° 05.8' W	<b>Fl.W.</b> period 3s fl. 0.3s, ec. 2.7s	26 8	9	White tower; 16.	Visible 354°-180°.
4216 A 4238	Carraig Mhor	55° 50.4' N 6° 06.1' W	<b>Fl.(2)W.R.</b> period 6s fl. 0.3s, ec. 1.7s fl. 0.3s, ec. 3.7s	23 7	W. 8 R. 6	White tower; 23.	R. 161°-175°, W. -347°, R. -28°.
4220 A 4240	McArthur's Head	55° 45.8' N 6° 02.9' W	<b>Fl.(2)W.R.</b> period 10s	128 39	W. 13 R. 10	White tower; 43.	W. 139°-159°, R. -244°, W. -88°.
4224 A 4242	Chuirn, about 1.9 km S. of Ardmore Point	55° 40.1' N 6° 01.2' W	<b>Fl.(3)W.</b> period 18s fl. 0.3s, ec. 1.7s fl. 0.3s, ec. 1.7s fl. 0.3s, ec. 13.7s	85 26	8	White tower; 16.	Visible 150°-40°, Obscured -150°.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>SCOTLAND-WEST COAST</b>							
4228 A 4248	Port Ellen, Carraig Fhada Point, W. entrance of harbor	55° 37.2' N 6° 12.7' W	<b>FI.W.R.G.</b> period 3s fl. 0.3s, ec. 2.7s	66 20	W. 8 R. 6 G. 6	White square tower; 56.	W. 140°-248°, G. -311°, W. -340°, R. -30°.
4232 A 4256	Rhinn of Islay.	55° 40.4' N 6° 30.8' W	<b>FI.W.</b> period 5s fl. 0.2s, ec. 4.8s	151 46	18	White tower; 95.	Visible 256°-184°.
4236 A 4254	Loch Indaal, Ruhda an Duin, 726 meters N. of Port Charlotte	55° 44.7' N 6° 22.3' W	<b>FI.(2)W.R.</b> period 7s fl. 0.5s, ec. 1.5s fl. 0.5s, ec. 4.5s	49 15	W. 11 R. 8	White masonry tower; 42.	R. 197°-218°, W. -249°, R. -350°, W. -36°.
4240 A 4252	-Bruichladdich, pier, head	55° 45.8' N 6° 21.6' W	<b>2F.R.</b> (vert.)	20 6	5	Column; 13.	
4244 A 4272	Mull of Kintyre	55° 18.6' N 5° 48.2' W	<b>FI.(2)W.</b> period 20s fl. 0.4s, ec. 1.5s fl. 0.4s, ec. 17.7s	299 91	18	White tower, white building; 38.	Visible 347°-178°.
4248 A 4274	Sanda Island	55° 16.5' N 5° 35.0' W	<b>FI.W.</b> period 10s fl. 0.3s, ec. 9.7s	164 50	15	White tower, buildings; 49.	<b>AIS</b> (MMSI No 992351305).Visible 242°-121°.
4252 A 4276	Davaar.	55° 25.7' N 5° 32.4' W	<b>FI.(2)W.</b> period 10s fl. 0.3s, ec. 1.7s fl. 0.3s, ec. 7.7s	121 37	15	White tower on n. side of balcony; 66.	Visible 73°-330°.
CAMPBELTOWN:							
4256 A 4279	-Kilkerran Range, front	55° 25.0' N 5° 35.4' W	<b>F.Y.</b>	23 7	6	Beacon, orange chevron, point up daymark; 20.	Sodium vapor discharge lamp. Difficult to distinguish.
4260 A 4279.1	--Rear, 250 meters 240°18' from front	55° 24.9' N 5° 35.6' W	<b>F.Y.</b>	92 28	6	Beacon, orange chevron, point down daymark; 23.	Sodium vapor discharge lamp. Difficult to distinguish.
4264 A 4284	-Old pier, head	55° 25.5' N 5° 36.0' W	<b>2F.G.</b> (vert.)	23 7	4	Column; 17.	
4268 A 4282	-New pier, head	55° 25.5' N 5° 35.9' W	<b>2F.R.</b> (vert.)	16 5	4	Mast; 12.	
4272 A 4290	Port Crannaich, breakwater, head	55° 35.6' N 5° 27.8' W	<b>FI.R.</b> period 10s	20 6	6	Metal column; 10.	
4273 A 4291	Loch Ranza, ferry terminal. NW corner	55° 42.5' N 5° 18.1' W	<b>2F.G.</b> (vert.)	13 4	3	Metal post.	1 meter apart.
LOCH FYNE:							
4276 A 4296	-Sgat More, S. head	55° 50.9' N 5° 18.5' W	<b>FI.W.</b> period 3s fl. 0.7s, ec. 2.3s	30 9	12	White round tower, concrete base; 26.	
4280 A 4297	-Portavadie, jetty	55° 52.5' N 5° 19.2' W	<b>2F.G.</b> (vert.)	20 6	4	Post.	2 meters apart.
4282 A 4297.5	-Eilean na Beithe	55° 52.7' N 5° 19.6' W	<b>FI.W.R.G.</b> period 3s	23 7	5	Metal post, concrete base; 10.	G. 36°-56°, W. -78°, R. -106°.
4284 A 4298	-East Loch Tarbert, Madadh Maol	55° 52.0' N 5° 24.2' W	<b>FI.R.</b> period 2.5s fl. 0.5s, ec. 2s	13 4	3	Red column.	
4288 A 4299	--Eilean a'Choic	55° 52.0' N 5° 24.3' W	<b>Q.G.</b>	10 3	2	Green column.	
4296 A 4304	-Ardrishaig, breakwater, head	56° 00.8' N 5° 26.6' W	<b>L.FI.W.R.G.</b> period 6s fl. 2s, ec. 4s	30 9	4	White tower; 20.	G. 287°-339°, W. -350°, R. -35°. Freight pier floodlit. Entrance to lock marked by F.G. and F.R. lights.
4300 A 4308	-Otter Spit	56° 00.6' N 5° 21.1' W	<b>FI.G.</b> period 3s fl. 0.7s, ec. 2.3s	23 7	8	Green tank, concrete pyramid; 36.	
4304 A 4310	Glas Eilean	56° 01.1' N 5° 21.2' W	<b>FI.R.</b> period 5s fl. 1s, ec. 4s	39 12	7	Red column, pedestal.	

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<b>SCOTLAND-WEST COAST</b>							
4308 A 4314	-Paddy Rock, Sgeir an Eirionnaich	56° 06.5' N 5° 13.5' W	<b>FI.W.R.</b> period 3s fl. 0.7s, ec. 2.3s	23 7	8	Black lattice metal tower, black round tower, white stripes; 23.	R. 44°-87°, W. -192°, R. -210°, W. -44°.
4316 A 4326	Pladda	55° 25.5' N 5° 07.1' W	<b>FI.(3)W.</b> period 30s fl. 0.7s, ec. 3.1s fl. 0.7s, ec. 3.1s fl. 0.7s, ec. 21.7s	131 40	17	White tower; 95.	
4320 A 4330	Pillar Rock Point.	55° 31.0' N 5° 03.7' W	<b>FI.(2)W.</b> period 20s fl. 0.5s, ec. 2s fl. 0.5s, ec. 17s	125 38	18	White square tower; 75.	
4324 A 4336	Brodick Bay, ferry terminal	55° 34.7' N 5° 08.1' W	<b>2F.R.</b> (vert.)	20 6	4	Grey post.	
4324.5 A 4336.3	-Brodick Pier	55° 34.6' N 5° 08.4' W	<b>2F.R.</b> (vert.)	13 4	4	Grey post.	
4328 A 4332	-SW. extremity of island	55° 30.7' N 5° 04.2' W	<b>FI.G.</b> period 3s fl. 0.6s, ec. 2.4s	46 14	6	White tower; 56.	Visible 282°-147°.
<b>SCOTLAND-FIRTH OF CLYDE</b>							
4332 A 4344	Runnaneun Point	55° 43.8' N 5° 00.2' W	<b>FI.R.</b> period 6s fl. 1s, ec. 5s	26 8	12	White metal tower; 25.	
4336 A 4346	Cumbrae, W. side of Little Cumbrae Island	55° 43.2' N 4° 58.0' W	<b>FI.W.</b> period 6s	92 28	14	White tower; 36.	Visible 334°-193°.
4338 A 4346.5	-Sheanawally Point	55° 44.1' N 4° 56.4' W	<b>FI.W.</b> period 10s	20 6	5	Metal post.	Visible 61°-300°.
MILLPORT:							
4340 A 4348	-W. extremity of outer islet	55° 44.9' N 4° 55.6' W	<b>Q.G.</b>	16 5	2	Post.	
4344 A 4350	-Pier, head, Range, front	55° 45.0' N 4° 55.9' W	<b>F.R.</b>	23 7	5	Column; 20.	
4348 A 4352	--Rear, on shore, 137 meters 333° from front	55° 45.1' N 4° 55.9' W	<b>F.R.</b>	30 9	5	Column; 23.	
4348.2 A 4355	-Hunterston Ore/Coal Jetty. NE. corner	55° 45.3' N 4° 52.6' W	<b>2F.G.</b> (vert.)	36 11	5	Green metal column.	3 meters apart.
4348.4 A 4355.2	--SW. corner	55° 45.1' N 4° 52.9' W	<b>2F.G.</b> (vert.)	36 11	5	Green metal column.	3 meters apart.
4348.6 A 4358	-NATO Pier, head	55° 46.1' N 4° 51.8' W	<b>2F.G.</b> (vert.)				
4348.8 A 4358.2	--Elbow	55° 46.0' N 4° 51.8' W	<b>2F.G.</b> (vert.)				
4349 A 4359	Largs Marina, S. breakwater head	55° 46.4' N 4° 51.7' W	<b>Oc.G.</b> period 10s lt. 7s, ec. 3s	13 4	4	STARBOARD (IALA A) Green column, topmark; 7.	
4350 A 4359.2	-W. Breakwater, head	55° 46.4' N 4° 51.7' W	<b>Oc.R.</b> period 10s lt. 7s, ec. 3s	13 4	4	PORT (IALA A) Red column, topmark; 7.	
4352 A 4360	Largs, N. pier, head	55° 47.7' N 4° 52.3' W	<b>2F.G.</b> (vert.)	20 6	5	Metal post.	2 meters apart.
4354 A 4361	Ascog Patches, No 13	55° 49.7' N 5° 00.2' W	<b>FI.(2)W.</b> period 10s	16 5	5	ISOLATED DANGER Black piles, black topmark, red banded, black base; 23.	
4356 A 4362	Toward Point	55° 51.7' N 4° 58.8' W	<b>FI.W.</b> period 10s fl. 0.2s, ec. 9.8s	69 21	22	White tower; 63.	

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<b>SCOTLAND-FIRTH OF CLYDE</b>							
ROTHESAY:							
4364 A 4370	--W. head	55° 50.3' N 5° 03.3' W	<b>2F.R.</b> (vert.)	33 10	5	Column; 26.	1 meter apart.
4372 A 4374	Loch Striven, jetty, S. head	55° 53.7' N 5° 02.9' W	<b>2F.G.</b> (vert.)				
4376 A 4374.2	-N. head	55° 53.8' N 5° 02.9' W	<b>2F.G.</b> (vert.)				
4380 A 4398	Gantock Beacon	55° 56.4' N 4° 55.1' W	<b>Fl.R.</b> period 6s fl. 0.8s, ec. 5.2s	39 12	6	White round tower; 44.	
DUNOON:							
4384 A 4400.1	-Pier, S. head	55° 56.7' N 4° 55.2' W	<b>2F.R.</b> (vert.)	20 6	6	Metal post.	2 meters apart.
4388 A 4400.2	-Jetty, head	55° 56.8' N 4° 55.3' W	<b>2F.R.</b> (vert.)	16 5	6	Column; 6.	
4392 A 4392	Wemyss Bay	55° 52.6' N 4° 53.5' W	<b>2F.G.</b> (vert.)	23 7	5	Metal mast.	2 meters apart.
			<b>F.W.</b>	49 15			Visible 37°30' -40°30'. Shown in fog.
4396 A 4405	McInroy's Point	55° 57.1' N 4° 51.3' W	<b>2F.G.</b> (vert.)	16 5	6	Grey metal column.	2 meters apart.
4400 A 4406	Hunter's Quay, NW. corner pierhead	55° 58.3' N 4° 54.5' W	<b>2F.R.</b> (vert.)	20 6	6	Grey metal column.	2 meters apart.
4403 A 4408	Barons Point, No 3	55° 59.2' N 4° 51.0' W	<b>Fl.R.</b> period 5s	16 5	2	Black metal post.	
4404 A 4404	Cloch Point	55° 56.5' N 4° 52.7' W	<b>Fl.W.</b> period 3s fl. 0.6s, ec. 2.4s	79 24	8	White round tower, black banded, white dwellings.	
GOUROCK BAY:							
4416 A 4414	-Kempock Point	55° 57.8' N 4° 49.1' W	<b>Fl.G.</b> period 6s	36 11	3	Metal column; 12.	Port closure signals on roof of Navy building 0.9 mile E.
4424 A 4409	-Ravenrock Point	56° 02.1' N 4° 54.4' W	<b>Fl.W.</b> period 4s fl. 0.7s, ec. 3.3s	39 12	10	White lattice metal tower, white column; 26.	AIS (MMSI No 992351319).
			<b>Dir.</b>	30 9			F.R. 201°30'-203°, Al.W.R. - 203°30' (W. phase increasing with bearing), F.W. -204°30', Al.W.G. - 205° (G. phase increasing with bearing), F.G. -206°30'.
4428 A 4411	-Port Dornaige	56° 03.8' N 4° 53.6' W	<b>Fl.W.</b> period 6s fl. 0.7s, ec. 5.3s	26 8	11	White column; 13.	Visible 206°-26°.
4429 A 4410.3	-Jetty, S. corner	56° 03.9' N 4° 52.6' W	<b>L.Fl.G.</b> (vert.) period 12s fl. 2s, ec. 10s	20 6	5	Metal post.	3 F.G. (vert.) port closure signals close N.
4430 A 4410.32	--N. corner	56° 04.0' N 4° 52.5' W	<b>F.G.</b>	20 6	5	Metal post.	Occasional.
4432 A 4412.8	-Finnart No 2 Jetty, S. head	56° 06.7' N 4° 50.4' W	<b>2F.G.</b> (vert.)	20 6			
4436 A 4412.7	--N. head Range, front	56° 06.7' N 4° 50.4' W	<b>2F.G.</b> (vert.)	20 6			
4436.1 A 4412.71	---Rear, 82 meters 066° from front	56° 06.7' N 4° 50.4' W	<b>Q.G.</b>	26 8			Visible 51°-81°.

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<b>SCOTLAND-FIRTH OF CLYDE</b>							
4440 A 4411.4	-Dog Rock (Carraig nan Ron)	56° 06.0' N 4° 51.7' W	<b>Fl.W.</b> period 2s fl. 0.7s, ec. 1.3s	23 7	11	White column; 17.	
LOCH GOIL:							
4441 A 4411.6	-The Perch Range, front	56° 06.9' N 4° 54.3' W	<b>Dir.W.R.G.</b>	10 3	W. 8 R. 6 G. 6	Metal column, grey rectangular daymark.	F.G. 314°30'-316°30', Al.W.G. -317°30', F.W. -318°30', Al.W.R. -319°30', F.R. -324°30'. Day range 3M.
			<b>Fl.R.</b> period 3s	10 3	3		Visible 187°-322°. Occasional.
4441.1 A 4411.61	--Rear, 700 meters 318° from front	56° 07.2' N 4° 54.7' W	<b>F.W.</b>	23 7	5	Metal column, orange rectangular daymark; 10.	Visible 312°-322°30'.
4442 A 4411.8	-Rubha Ardnahein	56° 06.2' N 4° 53.6' W	<b>Fl.R.</b> period 5s	10 3	3	Metal column, orange rectangular daymark; 10.	Visible 132°-312°. Occasional.
4444 A 4412	-Cnap Point Range, front	56° 07.4' N 4° 50.0' W	<b>Q.W.</b>	26 8	10	White column; 17.	
4444.1 A 4412.1	--Rear, 87 meters 031° from front	56° 07.4' N 4° 49.9' W	<b>F.W.</b>	43 13		White lattice metal tower, red rectangular daymark.	
4448 A 4413.6	-Strone	56° 07.7' N 4° 49.1' W	<b>Fl.G.</b> period 3s fl. 0.3s, ec. 2.7s	10 3	3	Green metal post.	<b>Radar reflector.</b>
4452 A 4413.7	-Jetty, head	56° 07.8' N 4° 49.1' W	<b>2F.G.(vert.)</b>			Column; 6.	
4456 A 4413.72	--Elbow	56° 07.9' N 4° 49.1' W	<b>2F.G.(vert.)</b>			Column; 6.	
4464 A 4420	Rosneath Patch, S. head	55° 58.5' N 4° 47.4' W	<b>Fl.(2)W.</b> period 10s fl. 0.8s, ec. 1.4s fl. 0.8s, ec. 7s	16 5	10	ISOLATED DANGER Black piles, black topmark, red banded, black base; 23.	
4466 A 4421	-Beacon 8N, 080°	55° 59.1' N 4° 44.2' W	<b>Dir.W.R.G.</b>	13 4	<b>W. 16</b> R. 13 G. 13	SPECIAL Yellow pile, "x" topmark.	F.G. 75°-77°30', Al.W.G. -79°30', F.W. -80°30', Al.W.R. -82°30', F.R. -85°.
			<b>Dir.W.R.G.</b>				F.G. 132°-134°, Al.W.G. -137°, F.W. -139°, Al.W.R. -142°.
			<b>Fl.Y.</b> period 3s	20 6	3		
4472 A 4421.2	-Beacon No 1	55° 59.1' N 4° 43.9' W	<b>V.Q.(4)Y.</b> period 5s fl. 0.3s, ec. 0.3s fl. 0.3s, ec. 0.3s fl. 0.3s, ec. 0.3s fl. 0.3s, ec. 2.9s	30 9		SPECIAL Yellow beacon, yellow x-shape daymark.	In line 080° with Beacon 8N.
4475 A 4422	Rosneath Patch Beacon 7N, Range, front	56° 00.1' N 4° 45.4' W	<b>Dir.W.R.G.</b>	16 5	<b>W. 16</b> R. 13 G. 13	Green pile structure, green triangle, point up daymark.	Al.W.G. 353°-355°, F.W. -357°, Al.W.R. -000°, F.R. -002°.
			<b>Dir.W.R.G.</b>	16 5	<b>W. 16</b> R. 13 G. 13		Al.W.G. 111°-114°, F.W. -116°, Al.W.R. -119°, F.R. -121°.
			<b>Oc.G.</b> period 6s	20 6	3		
4476 A 4422.1	Ardencaple Castle, rear, about 940 meters 356° from front	56° 00.5' N 4° 45.4' W	<b>2F.G.(vert.)</b>	85 26	12	Masonry castle, on nw corner of castle; 46.	Visible 335°-20°. 3 meters apart.
4490 A 4423.5	Rosneath Bay, 149°	56° 00.1' N 4° 46.7' W	<b>Dir.W.R.G.</b>	30 9	<b>W. 16</b> R. 13 G. 13	Orange metal column; 23.	F.G. 144°-145°, Al.W.G. -148°, F.W. -150°, Al.W.R. -153°, F.R. -154°.
			<b>Oc.R.</b> period 8s lt. 6s, ec. 2s	30 9	3		

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<b>SCOTLAND-FIRTH OF CLYDE</b>							
4492 A 4423	Rhu Narrows	56° 00.7' N 4° 47.7' W	<b>Dir.W.R.G.</b>	16 5	<b>W. 16</b> R. 13 G. 13	PORT (IALAA) Red beacon, topmark.	Al.W.G. 291°-294°, F.W. - 296°, Al.W.R. -299°, F.R. -301°.
4504 A 4425.5	-POL Jetty, N. arm	56° 00.4' N 4° 47.5' W	<b>2F.R.</b> (vert.)		5	White concrete column; 10.	Visible 150°-330°.
4508 A 4422.5	-Rhu Point, 318°	56° 00.9' N 4° 47.2' W	<b>Dir.W.R.G.</b>		<b>W. 16</b> R. 13 G. 13	Metal beacon, orange trapezium daymark.	Al.W.G. 315°-317°, F.W. - 319°, Al.W.R. -321°, F.R. -325°. Radar scanner.
			<b>Dir.W.</b>	16 5	1		Q.W. 325°-340°, F.W. -345°, Oc.W. -350°.
4518 A 4425	-Castle Point	56° 00.2' N 4° 46.5' W	<b>Fl.(2)R.</b> period 10s fl. 0.8s, ec. 1.4s fl. 0.8s, ec. 7s	26 8	6	Red mast; 16.	
4519 A 4426	-Rhu Spit	56° 00.8' N 4° 47.3' W	<b>Fl.W.</b> period 3s fl. 0.4s, ec. 2.6s	20 6	6	White round tower, green banded; 26.	
4524 A 4426.5	-Mambeg, 331°	56° 03.7' N 4° 50.5' W	<b>Dir.Fl.W.R.G.</b> period 5s fl. 1s, ec. 4s	23 7	W. 5 R. 3 G. 3	White column; 13.	G. 329°-330°30', W. - 331°30', R. -332°30'. Shown 24 hours.
4528 A 4427.4	-Faslane Base wharf, S. elbow	56° 03.2' N 4° 49.2' W	<b>Fl.G.</b> period 5s fl. 0.5s, ec. 4.5s	36 11	5	Metal mast.	
4530 A 4427.45	--Head	56° 03.1' N 4° 49.2' W	<b>2F.G.</b> (vert.)			Building.	
4532 A 4427.5	--Carnban Point, S dolphin	56° 03.1' N 4° 49.2' W	<b>Fl.R.</b> period 5s fl. 0.5s, ec. 4.5s	10 3	2	Dolphin.	Port closure signals on N. dolphin.
4536 A 4427.6	---Middles	56° 03.3' N 4° 49.2' W	<b>2F.G.</b> (vert.)	46 14	5	Metal mast.	
4542 A 4427.9	---Berth No 7	56° 03.6' N 4° 49.2' W	<b>2F.G.</b> (vert.)	23 7		Grey mast; 16.	2 meters apart.
4544 A 4428.6	-Garelohead, S. fuel jetty, head	56° 04.2' N 4° 49.7' W	<b>2F.G.</b> (vert.)	33 10	5	White floodlit tower; 40.	2 meters apart.
4549 A 4428.8	--N. head	56° 04.4' N 4° 49.7' W	<b>2F.G.</b> (vert.)	33 10	5	White floodlit tower; 39.	2 meters apart.
GREENOCK:							
4552 A 4438	-Anchorage Range, front	55° 57.6' N 4° 46.6' W	<b>F.G.</b>	23 7	12	Yellow metal column.	
4556 A 4440	--Rear, 32 meters 196° from front	55° 57.6' N 4° 46.6' W	<b>F.G.</b>	30 9	12	Yellow metal column.	
4560 A 4444	-Clydeport Container Terminal	55° 57.5' N 4° 45.9' W	<b>Q.G.</b>	26 8	8	Grey metal column.	
4564 A 4442	--Range, front	55° 57.4' N 4° 45.9' W	<b>F.G.</b>	59 18		Building.	
4568 A 4442.1	--Rear, 360 meters 194°30' from front	55° 57.3' N 4° 46.0' W	<b>F.G.</b>	108 33		Pylon.	Flood light.
4572 A 4458	-Victoria Harbor, W. side of entrance	55° 56.8' N 4° 44.7' W	<b>2F.G.</b> (vert.)	23 7		Green mast; 16.	2 meters apart.
4580 A 4470	-Garvel Embankment, W. end	55° 56.8' N 4° 43.5' W	<b>Oc.G.</b> period 10s lt. 6s, ec. 4s	30 9	4	Mast.	
4584 A 4472	--Maurice Clark Point	55° 56.6' N 4° 42.8' W	<b>Q.G.</b>	23 7	2	Green masonry tower.	
PORT GLASGOW:							
4588 A 4476	-Beacon, off the entrance	55° 56.3' N 4° 41.3' W	<b>F.G.</b>	23 7	9	Black and white checkered tower, cupola; 26.	

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>SCOTLAND-FIRTH OF CLYDE</b>							
4592 A 4478	-Steamboat quay	55° 56.3' N 4° 41.4' W	<b>F.G.</b>	39 12	12	Black and white checkered column; 36.	Visible 210°-290°.
4596 A 4484	Garrison	55° 55.9' N 4° 34.1' W	<b>FI.G.</b> period 5s fl. 0.5s, ec. 4.5s	33 10	8	Green pedestal, green masonry base; 36.	
4600 A 4486	Dumbuck	55° 55.8' N 4° 32.5' W	<b>FI.G.</b> period 2s fl. 0.3s, ec. 1.7s	33 10	8	Green masonry tower; 39.	
4604 A 4488	Longhaugh	55° 55.7' N 4° 31.0' W	<b>FI.G.</b> period 2s fl. 0.3s, ec. 1.7s	33 10	8	Green pedestal, green masonry base; 36.	
4608 A 4490	Dunglass	55° 55.7' N 4° 30.1' W	<b>FI.R.</b> period 2s fl. 0.3s, ec. 1.7s	33 10	6	Red pedestal; 35.	
4612 A 4494	Bowling	55° 55.8' N 4° 29.2' W	<b>FI.R.</b> period 4s fl. 1s, ec. 3s	33 10	6	Red metal column.	
4616 A 4496	Donalds quay	55° 55.5' N 4° 28.1' W	<b>FI.R.</b> period 4s fl. 1s, ec. 3s	33 10	6	Red latticed tower, red hut; 36.	
4620 A 4498	St. Patricks Stone	55° 55.2' N 4° 27.9' W	<b>FI.G.</b> period 5s fl. 0.5s, ec. 4.5s	33 10	8	Green pedestal, masonry base; 36.	
4628 A 4501	Erskine	55° 54.8' N 4° 27.3' W	<b>FI.G.</b> period 5s fl. 0.5s, ec. 4.5s	33 10	8	Green pedestal; 35.	
4636 A 4504	Rashielee	55° 54.3' N 4° 26.6' W	<b>FI.G.</b> period 2s fl. 0.3s, ec. 1.7s	33 10	8	Green pedestal; 35.	
4640 A 4506	Dalmuir West	55° 54.4' N 4° 26.3' W	<b>FI.R.</b> period 2s fl. 0.3s, ec. 1.7s	33 10	6	Red metal column, masonry base; 36.	
4644 A 4510	-East	55° 54.2' N 4° 25.1' W	<b>FI.R.</b> period 4s fl. 1s, ec. 3s	33 10	6	Red latticed tower, red base; 36.	
4648 A 4508	Newshot Island	55° 54.2' N 4° 25.5' W	<b>FI.G.</b> period 5s fl. 0.5s, ec. 4.5s	33 10	8	Green pedestal; 35.	
4652 A 4511	Algies	55° 53.8' N 4° 24.7' W	<b>FI.G.</b> period 5s fl. 0.5s, ec. 4.5s	23 7	8	Green metal gantry; 20.	
4654 A 4511.2	Slipway	55° 53.7' N 4° 24.3' W	<b>FI.R.</b> period 4s fl. 0.3s, ec. 3.7s	16 5	3	Red metal post.	Marks end of slipway.
4656 A 4512	Blythswood	55° 53.4' N 4° 24.1' W	<b>FI.G.</b> period 2s fl. 0.3s, ec. 1.7s	33 10	6	Green tower, green base; 35.	
4660 A 4513	Renfrew West	55° 53.2' N 4° 23.1' W	<b>FI.G.</b> period 5s fl. 0.5s, ec. 4.5s	33 10	8	Green metal column; 35.	
4672 A 4516	Braehead	55° 52.6' N 4° 21.8' W	<b>FI.G.</b> period 2s fl. 0.3s, ec. 1.7s	33 10	8	Green pedestal; 35.	
4680 A 4519	Shieldhall East, wharf, head	55° 52.1' N 4° 20.3' W	<b>FI.G.</b> period 2s fl. 0.3s, ec. 1.7s	56 17	8	Green mast; 58.	
4684 A 4520	Linthouse	55° 52.1' N 4° 19.9' W	<b>FI.G.</b> period 5s fl. 0.5s, ec. 4.5s	33 10	8	Green lattice metal tower; 36.	
4688 A 4521	Fairfield	55° 52.1' N 4° 19.4' W	<b>FI.G.</b> period 5s fl. 0.5s, ec. 4.5s	33 10	8	Green mast; 35.	
4693 A 4527	-Garden Festival Swing Bridge	55° 51.5' N 4° 17.4' W	<b>FI.R.</b> period 10s	10 3	1	PORT (IALA A) Red piles, topmark; 10.	Marks N. channel limit. 3 F.R. in form of triangle mark center of channel when bridge is closed.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>SCOTLAND-FIRTH OF CLYDE</b>							
4694 A 4527.2	-S. side of bridge	55° 51.5' N 4° 17.4' W	<b>FI.G.</b> period 10s	10 3	1	STARBOARD (IALAA) Green piles, topmark; 10.	Marks S. channel limit.
4695 A 4527.4	-N. channel limit	55° 51.5' N 4° 17.3' W	<b>FI.R.</b> period 10s	10 3	1	PORT (IALAA) Red piles, topmark; 10.	Marks N. channel limit.
4696 A 4527.6	-S. channel limits	55° 51.5' N 4° 17.3' W	<b>FI.G.</b> period 10s	10 3	1	STARBOARD (IALAA) Green piles, topmark; 10.	Marks S. channel limit.
<b>SCOTLAND-WEST COAST</b>							
ARDROSSAN:							
4700 A 4532	-055°	55° 38.6' N 4° 49.2' W	<b>Dir.W.R.G.</b>	49 15	W. 14 R. 11 G. 11	Lattice metal tower; 39.	F.G. 50°-51°12', Al.W.G. - 53°48', (W. phase increasing with bearing), F.W. -56°12', Al.W.R. - 58°48' (R. phase increasing with bearing), F.R. -60°.
			<b>F.R.</b>	43 13	6		Passing light visible 325°- 145°.
4704 A 4538	-Pier, head	55° 38.5' N 4° 49.6' W	<b>Iso.W.G.</b> period 4s	36 11	9	White tower; 29.	G. 317°-35°, W. -317°.
4708 A 4536	-N. breakwater, head	55° 38.5' N 4° 49.6' W	<b>FI.R.</b> period 5s	23 7	5	Red gantry; 3.	
IRVINE:							
4716 A 4546	-S. side of entrance	55° 36.2' N 4° 42.0' W	<b>FI.G.</b> period 3s fl. 0.3s, ec. 2.7s	20 6	5	Green metal column, platform; 20.	
4724 A 4548	-Range, front	55° 36.4' N 4° 41.6' W	<b>F.G.</b>	33 10	5	Green mast; 33.	Visible 19°-120°.
4728 A 4548.1	--Rear, 101 meters 051° from front	55° 36.4' N 4° 41.5' W	<b>F.R.</b>	49 15	5	Green mast; 50.	Visible 19°-120°.
TROON HARBOR:							
4732 A 4554	-W. pier, head	55° 33.1' N 4° 41.0' W	<b>FI.(2)W.G.</b> period 5s fl. 0.6s, ec. 0.9s fl. 0.6s, ec. 2.9s	36 11	9	White tower; 26.	G. 36°-90°, W. -36°.
4740 A 4558	-E. pier, head	55° 33.0' N 4° 41.0' W	<b>Q.R.</b>	20 6	3	Red metal post, dolphin; 13.	
4744 A 4562	Lady Isle	55° 31.6' N 4° 44.0' W	<b>FI.W.</b> period 2s fl. 0.5s, ec. 1.5s	62 19	11	White tower, red stripe; 16.	
	RACON		<b>T(-)</b>		11		(3 & 10 cm).
AYR HARBOUR:							
4752 A 4574	-Near pilot's house, Range, front	55° 28.1' N 4° 38.4' W	<b>F.R.</b>	33 10	5	Red tower, white lantern; 20.	Traffic signals.
4756 A 4574.1	--Rear, 130 meters 098° from front	55° 28.1' N 4° 38.3' W	<b>Oc.R.</b> period 10s fl. 8s, ec. 2s	59 18	9	Masonry tower, white lantern; 72.	
4760 A 4568	-S. pier, head	55° 28.2' N 4° 38.8' W	<b>Q.W.</b>	23 7	7	White tower; 20.	Visible 12°-161°.
			<b>FI.G.</b>	16 5	5		Visible 12°-82°.
4764 A 4566	-N. breakwater, head	55° 28.2' N 4° 38.8' W	<b>Q.R.</b>	30 9	5	White lattice metal tower; 30.	
4768 A 4582	Ailsa Craig.	55° 15.1' N 5° 06.5' W	<b>FI.W.</b> period 4s fl. 0.1s, ec. 3.9s	59 18	17	White tower; 36.	Visible 145°-28°.

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<b>SCOTLAND-WEST COAST</b>							
4772 A 4580	Turnberry	55° 19.5' N 4° 50.7' W	<b>FI.W.</b> period 15s fl. 0.4s, ec. 14.6s	95 29	12	White tower; 79.	
4776 A 4588	Girvan, S. pier, head	55° 14.7' N 4° 51.9' W	<b>2F.G.</b> (vert.)	26 8	4	Metal mast, white tower; 20.	Traffic signals 220 meters SE.
4778 A 4588.4	-N. breakwater, head	55° 14.8' N 4° 51.8' W	<b>FI.(2)R.</b> period 6s	23 7	4	Post, concrete base; 13.	
4780 A 4586	-N. groyne, head	55° 14.7' N 4° 51.7' W	<b>FI.R.</b> period 4s	16 5	2	Lattice metal tower.	
LOCH RYAN:							
4784 A 4592	-Cairn Ryan Point	54° 58.5' N 5° 01.8' W	<b>FI.(2)R.</b> period 10s fl. 0.14s, ec. 2.36s fl. 0.14s, ec. 7.36s	46 14	12	White tower, balcony; 49.	
4786 A 4594	-Cairnryan Ferry Terminal, mooring dolphin	54° 57.8' N 5° 01.0' W	<b>FI.R.</b> period 5s fl. 0.5s, ec. 4.5s	16 5	5	Mast.	
4796 A 4604	Corsewall	55° 00.4' N 5° 09.6' W	<b>FI.(5)W.</b> period 30s fl. 0.2s, ec. 3.5s fl. 0.2s, ec. 3.5s fl. 0.2s, ec. 3.5s fl. 0.2s, ec. 3.5s fl. 0.2s, ec. 15s	112 34	22	White tower; 112.	<b>AIS</b> (MMSI No 992351018).Visible 27°-257°.
4804 A 4607	Portpatrick Range, front	54° 50.5' N 5° 07.0' W	<b>F.G.</b>			Sea wall, orange stripe.	Private. Occasional.
4808 A 4607.1	-Rear, 68 meters 050°30' from front	54° 50.5' N 5° 06.9' W	<b>F.G.</b>	26 8		Building, orange stripe.	Private. Occasional.
4812 A 4608	Crammag Head	54° 39.9' N 4° 57.9' W	<b>FI.W.</b> period 10s fl. 1s, ec. 9s	115 35	18	White tower; 23.	
4816 A 4610	Mull of Galloway	54° 38.1' N 4° 51.4' W	<b>FI.W.</b> period 20s fl. 0.5s, ec. 19.5s	325 99	18	White round tower; 85.	Visible 182°-105°.
4818 A 4620	Port William Range, front	54° 45.6' N 4° 35.1' W	<b>FI.G.</b> period 3s fl. 0.3s, ec. 2.7s	23 7	3	Metal mast; 20.	
4818.1 A 4620.1	-Rear, 130 meters 105° from front	54° 45.6' N 4° 35.1' W	<b>F.G.</b>	33 10	2	Bracket on building.	
4820 A 4622	Isle of Whithorn Harbor	54° 41.8' N 4° 21.7' W	<b>Q.G.</b>	13 4	3	Grey column.	
4822 A 4624	-Range, front	54° 42.0' N 4° 22.0' W	<b>Oc.R.</b> period 8s lt. 6s, ec. 2s	23 7	7	Orange metal mast, orange diamond (rhombus) daymark; 13.	
4823 A 4624.1	--Rear, 35 meters 355° from front	54° 42.0' N 4° 22.0' W	<b>Oc.R.</b> period 8s	30 9	7	Orange metal mast, orange diamond (rhombus) daymark; 10.	Synchronized with front.
4823.5 A 4624.2	Isle of Whithorn	54° 41.8' N 4° 21.6' W	<b>FI.W.R.</b> period 3s fl. 0.5s, ec. 2.5s	66 20	W. 6 R. 4	White square tower; 13.	W. 310°-5°, R. -40°.
4824 A 4630	Garlieston, pier, head	54° 47.5' N 4° 21.7' W	<b>2F.R.</b> (vert.)	26 8	3	Column; 16.	1 meter apart.
4827 A 4633.99	Little Ross, front	54° 46.1' N 4° 05.0' W	<b>FI.(2)W.</b> period 5s	69 21	5	Masonry beacon; 33.	
4828 A 4634	-Rear, 201° from front	54° 46.0' N 4° 05.1' W	<b>FI.W.</b> period 5s fl. 0.5s, ec. 4.5s	164 50	12	White tower; 66.	Obscured in Wigton Bay S. or 103°.
4832 A 4640	Hestan Islet, E. head	54° 50.0' N 3° 48.4' W	<b>FI.(2)W.</b> period 10s fl. 0.5s, ec. 1.5s fl. 0.5s, ec. 7.5s	138 42	9	White lattice metal tower.	

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<b>ENGLAND-WEST COAST</b>							
SILLOTH:							
4844 A 4670	-Lees Scar Rock	54° 51.8' N 3° 24.7' W	<b>FI.G.</b> period 5s fl. 1s, ec. 4s	36 11	4	White structure on piles; 13.	Visible 5°-317°.
4848 A 4671	--East Cote	54° 52.8' N 3° 22.8' W	<b>F.G.</b>	49 15	12	White structure on piles; 39.	Visible 46°-58°. Intensified at 52°.
4852 A 4672	-Groyne, head	54° 52.1' N 3° 24.0' W	<b>2F.G.</b> (vert.)	13 4	4	Dolphin.	F.G.W.G. (vert.) traffic signals exhibited from New Dock Signal Mast. Vessels may proceed only with specific orders from the Port Authority.
4856 A 4672.6	-Outfall	54° 52.4' N 3° 23.4' W	<b>2F.G.</b> (vert.)			STARBOARD (IALAA) Beacon, green triangle, point up daymark.	
MARYPORT:							
4860 A 4676	-S. pier, head	54° 43.1' N 3° 30.5' W	<b>FI.W.</b> period 1.5s fl. 0.2s, ec. 1.3s	33 10	6	Metal framework tower.	
4861 A 4677	--Outfall	54° 42.8' N 3° 31.4' W	<b>FI.G.</b> period 5s			STARBOARD (IALAA) Beacon, green triangle, point up daymark.	
WORKINGTON:							
4864 A 4688	-Pier, head, S. side of entrance	54° 39.1' N 3° 34.6' W	<b>FI.W.</b> period 5s fl. 1s, ec. 4s	36 11	5	Red brick building; 20.	
4868 A 4692	-Range, front	54° 38.9' N 3° 34.1' W	<b>F.R.</b>	33 10	3	White pyramid tower, orange banded; 23.	
4872 A 4692.1	--Rear, 134 meters 131°49' from front	54° 38.9' N 3° 34.0' W	<b>F.R.</b>	39 12	3	White pyramid tower, orange banded; 30.	
WHITEHAVEN:							
4880 A 4698	-W. pier, head	54° 33.2' N 3° 35.8' W	<b>FI.G.</b> period 5s fl. 1s, ec. 4s	52 16	8	White round tower; 46.	
4884 A 4700	-N. pier, head	54° 33.2' N 3° 35.7' W	<b>FI.R.</b> period 5s	26 8	10	White round tower; 20.	
4888 A 4702	-North Wall quay, head	54° 33.1' N 3° 35.5' W	<b>2F.R.</b> (vert.)	26 8	2	Mast.	Lock control signals 30 meters E.
4892 A 4710	St. Bees Head	54° 30.8' N 3° 38.2' W	<b>FI.(2)W.</b> period 20s fl. 1.5s, ec. 2s fl. 1.5s, ec. 15s	335 102	18	White round tower; 56.	Visible 340°-230°. Bearing 230° is the approximate NE shoreline limit.

**ENGLAND-WEST COAST-ISLE OF MAN**

4896 A 4720	Point of Ayre	54° 24.9' N 4° 22.1' W	<b>FI.(4)W.</b> period 20s fl. 0.2s, ec. 2.3s fl. 0.2s, ec. 2.3s fl. 0.2s, ec. 2.3s fl. 0.2s, ec. 12.3s	105 32	19	White tower, two red bands; 98.	
	RACON		<b>M(- -)</b>		13		(3 & 10 cm).
PEEL:							
4924 A 4734	-Breakwater, head	54° 13.7' N 4° 41.7' W	<b>Oc.W.</b> period 7s lt. 5s, ec. 2s	36 11	6	White tower; 26.	
4928 A 4730	-Pier, head, E. side of harbor entrance	54° 13.5' N 4° 41.7' W	<b>Oc.R.</b> period 7s lt. 5s, ec. 2s	26 8		White tower, red banded, on office building.	

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>ENGLAND-WEST COAST-ISLE OF MAN</b>							
4932 A 4732	-Castle jetty, head	54° 13.6' N 4° 41.7' W	<b>Oc.G.</b> period 7s lt. 5s, ec. 2s	16 5		White tower, green banded; 13.	
	PORT ERIN:						
4936 A 4740	-Range, front	54° 05.3' N 4° 45.4' W	<b>F.R.</b>	33 10		White tower, red banded; 36.	
4940 A 4740.1	--Rear, on E. shore, 39 meters 099°06' from front	54° 05.3' N 4° 45.4' W	<b>F.R.</b>	62 19		White column, red banded, lantern; 13.	
4944 A 4744	-Raglan pier, head	54° 05.1' N 4° 45.7' W	<b>Oc.G.</b> period 5s lt. 4s, ec. 1s	26 8		White tower, green banded; 23.	
4952 A 4745	Thousla Rock	54° 03.7' N 4° 48.0' W	<b>FI.R.</b> period 3s fl. 0.7s, ec. 2.3s	30 9	4	White octagonal concrete tapered pillar, red lantern.	
4956 A 4748	Chicken Rock	54° 02.3' N 4° 50.4' W	<b>FI.W.</b> period 5s fl. 0.5s, ec. 4.5s	125 38	18	Granite tower; 144.	
	RACON		<b>C(- · - ·)</b>				(3 & 10 cm).
	PORT ST. MARY:						
4960 A 4752	-The Carrick	54° 04.3' N 4° 42.5' W	<b>Q.(2)W.</b> period 5s	20 6	3	ISOLATED DANGER Black column, red banded, black topmark; 26.	
4964 A 4756	-Inner pier, head	54° 04.4' N 4° 44.0' W	<b>Oc.R.</b> period 3s lt. 2s, ec. 1s	26 8		White tower, red banded; 26.	
4968 A 4754	-Alfred pier, head	54° 04.3' N 4° 43.7' W	<b>Oc.R.</b> period 10s lt. 6s, ec. 4s	26 8	6	White tower, red banded; 23.	
	CASTLETOWN HARBOUR:						
4972 A 4760	-New pier, head	54° 04.3' N 4° 38.8' W	<b>Oc.R.</b> period 15s lt. 13s, ec. 2s	26 8	5	White tower, red banded; 30.	
4976 A 4761	-Irish quay	54° 04.4' N 4° 38.9' W	<b>Oc.R.</b> period 4s lt. 3s, ec. 1s	16 5		White tower, red banded; 13.	Visible 142°-322°. Seasonal. 2 F.R. shown from each swing bridge.
4980 A 4760.5	-N. side of entrance	54° 04.4' N 4° 38.9' W	<b>Oc.G.</b> period 4s lt. 3s, ec. 1s	10 3		White metal post on concrete column.	
4984 A 4762	Langness, Dreswick Point	54° 03.3' N 4° 37.5' W	<b>FI.(2)W.</b> period 30s fl. 0.6s, ec. 5.1s fl. 0.6s, ec. 23.7s	75 23	12	White tower; 62.	
4988 A 4764	Derby Haven, breakwater, SW. head	54° 04.6' N 4° 36.9' W	<b>Iso.G.</b> period 2s	16 5	5	White tower, green banded.	
	DOUGLAS BAY:						
4992 A 4770	-Douglas Head	54° 08.6' N 4° 28.0' W	<b>FI.W.</b> period 10s fl. 0.5s, ec. 9.5s	105 32	15	White tower and buildings; 66.	W. UNINTENSIFIED 220°- 37°, W. 110°-220°.
5028 A 4784	Laxey, pier, head	54° 13.5' N 4° 23.2' W	<b>Oc.R.</b> period 3s lt. 2s, ec. 1s	23 7	5	White tower, red banded; 13.	Visible 318°-047°. Obscured 214°- 318°.
5032 A 4785	-Breakwater, head	54° 13.5' N 4° 23.2' W	<b>Oc.G.</b> period 3s lt. 2s, ec. 1s	23 7	5	White tower, green banded; 13.	
5036 A 4786	Maughold Head	54° 17.8' N 4° 18.6' W	<b>FI.(3)W.</b> period 30s fl. 0.5s, ec. 2s fl. 0.5s, ec. 2s fl. 0.5s, ec. 24.5s	213 65	15	White tower; 75.	
	RAMSEY:						

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>ENGLAND-WEST COAST-ISLE OF MAN</b>							
5040 A 4796	-S. pier, head	54° 19.4' N 4° 22.5' W	<b>Iso.R.</b> period 5s	26 8	10	White tower, red banded, black base; 26.	
5044 A 4798	-N. pier, head	54° 19.0' N 4° 22.0' W	<b>Q.G.</b>	30 9	10	White tower, black base; 25.	
5048 A 4799	-Mooragh Bank	54° 19.3' N 4° 22.8' W	<b>Iso.G.</b> (horiz.) period 4s	10 3		Green metal post on dolphin; 10.	For guidance of vessels inside the harbour. Not visible seaward.
<b>ENGLAND-WEST COAST</b>							
MORECAMBE BAY:							
5052 A 4820	-Walney	54° 02.9' N 3° 10.7' W	<b>Fl.W.</b> period 15s fl. 0.5s, ec. 14.5s	69 21	20	White masonry tower; 79.	Obscured 122°-127° within 3 miles of the shore.
5054 A 4821	-Halfway Shoal	54° 01.4' N 3° 11.9' W	<b>Q.R.</b>	52 16	10	Framework beacon, red and yellow checkered rectangular daymark.	Emergency light.
5056 A 4823	-Haws Point	54° 03.0' N 3° 10.0' W	<b>Q.R.</b>	26 8	6	Black piles.	
5060 A 4840	-Cartmel	54° 09.6' N 2° 59.6' W	<b>F.W.</b>	82 25	9		Fishing light.
5064 A 4822	--Range light, front	54° 03.2' N 3° 09.1' W	<b>Q.W.</b>	23 7	14	Beacon, orange rectangular daymark.	Visible 35°12' -46°12'.
5068 A 4822.1	--Rear, 0.61 mile 040°42', from front	54° 03.6' N 3° 08.5' W	<b>Iso.W.</b> period 2s	43 13	14	Beacon, orange rectangular daymark.	Visible 35°12' -46°12'.
5072 A 4824	--Range light, front	54° 04.4' N 3° 09.7' W	<b>Q.W.</b>	30 9	14	White round glass reinforced plastic(grp) fiberglass tower.	Visible 359°36' -10°36'.
5076 A 4824.1	--Rear, 0.77 mile 005°06' from front	54° 05.2' N 3° 09.6' W	<b>Iso.W.</b> period 2s	46 14	14	Red brick column, white face.	Visible 359°36' -10°36'.
5080 A 4825	--No 5, W. side of channel opposite Ramsden Dock entrance, front	54° 05.2' N 3° 13.5' W	<b>Q.W.</b>	23 7	14	White platform on black pile structure, orange triangle, point down daymark.	Visible 291°54' -302°54'.
5084 A 4825.1	--Rear, No 6, 0.58 mile 297°24' from front	54° 05.4' N 3° 14.4' W	<b>Iso.W.</b> period 2s	43 13	14	Beacon, orange triangle, point up daymark.	Visible 291°54' -302°54'.
5088 A 4833.2	--W. pile, W. side	54° 05.3' N 3° 13.4' W	<b>Q.R.</b>	26 8	4	Black piles.	
5092	-Morecambe Buoy	53° 52.0' N 3° 23.0' W	<b>Q.(2)W.</b> period 15s			W. CARDINAL Yellow column, black topmark, black banded.	<b>Radar reflector.</b>
5094	-Lune Deep Buoy	53° 55.8' N 3° 10.9' W	<b>Q.(2) + L.Fl.W.</b> period 15s				
	RACON		T(-)				(3 & 10 cm).
5096 A 4852	--Middle of stone pier W. side harbor, front	54° 04.4' N 2° 52.5' W	<b>F.R.</b>	33 10	2	Green mast; 21.	
5100 A 4852.1	--Rear, root of E. pier, 140 meters 090° from front	54° 04.4' N 2° 52.4' W	<b>F.R.</b>	46 14	2	Green mast; 32.	
5112 A 4847	--Sewer, outfall	54° 04.3' N 2° 53.7' W	<b>Fl.G.</b> period 2s fl. 0.5s, ec. 1.5s	13 4	2	Metal framework tower.	
5116 A 4862	--SW. quay Range, front	54° 01.9' N 2° 55.1' W	<b>F.Bu.</b>	36 11	2	Post, orange black diamond (rhombus) daymark; 7.	Marks center of dredged channel into the harbor. Shown 24 hours.
			<b>Fl.R.</b>				Intense flashing LED, in shape of point up chevron.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>ENGLAND-WEST COAST</b>							
5120 A 4862.1	--Rear, 137 meters from front	54° 01.9' N 2° 55.0' W	<b>F.Bu.</b>	46 14	2	Mast, orange and black diamond daymark; 16.	
			<b>FI.R.</b>				Intense flashing LED, in shape of point up chevron.
5124 A 4860	--S. breakwater, head	54° 01.9' N 2° 55.6' W	<b>2F.G.(vert.)</b>	30 9	3	White metal framework tower; 20.	2 meters apart. <b>Radar reflector.</b> Siren: 1bl. ev. 30s (bl. 7s, si. 23s)
5128 A 4864	--N. pier, head	54° 02.0' N 2° 55.3' W	<b>2F.R.(vert.)</b>	36 11	2	Mast; 18.	Obscured from seaward.
5132 A 4863	--S. pier, head	54° 01.9' N 2° 55.4' W	<b>Oc.G.</b> period 7.5s lt. 6s, ec. 1.5s	30 9	6	White metal tower, red base; 20.	
5136 A 4863.3	--S. outfall	54° 01.7' N 2° 55.7' W	<b>FI.(2)G.</b> period 10s fl. 0.5s, ec. 1s fl. 0.5s, ec. 8s	16 5	2	Metal post.	
5144 A 4876	--Plover Scar	53° 58.9' N 2° 52.9' W	<b>FI.W.</b> period 2s	20 6	6	White masonry tower, black lantern; 26.	Channel liable to change.
5152 A 4892	--On esplanade, Range, front	53° 55.7' N 3° 00.4' W	<b>Iso.W.</b> period 2s	46 14	9	Masonry tower; 39.	Visible 154°30'-157°30'. Shown 24 hours. Channel liable to change.
5156 A 4892.1	--Rear, in town, 320 meters 156° from front	53° 55.6' N 3° 00.4' W	<b>Iso.W.</b> period 4s	92 28	9	Masonry tower; 82.	Visible 154°30'-157°30'. Shown 24 hours. Channel liable to change.
5160 A 4893	--Steep Breast	53° 55.8' N 3° 00.5' W	<b>Iso.G.</b> period 2s	10 3	2	Platform on black wooden post, black base; 26.	
5164 A 4902	--S. side of ferry dock	53° 55.6' N 3° 00.2' W	<b>2F.G.(vert.)</b>	20 6	1	Red metal column; 10.	
5168 A 4900	--Knott End pier, head	53° 55.7' N 2° 56.0' W	<b>2F.R.(vert.)</b>	10 3	2	Platform on column; 34.	
5172 A 4896	--Groyne	53° 55.7' N 3° 00.8' W	<b>FI.G.</b> period 3.5s	20 6		Platform on post.	
BLACKPOOL:							
5176 A 4918	--N. pier, head	53° 49.2' N 3° 03.8' W	<b>2F.G.(vert.)</b>		3		2 meters apart.
5180 A 4920	--Central pier, head	53° 48.6' N 3° 03.9' W	<b>2F.G.(vert.)</b>		4	Tripodal metal structure.	2 meters apart.
5184 A 4922	--S. pier, head	53° 47.7' N 3° 03.6' W	<b>2F.G.(vert.)</b>		4	Building.	
5188	Gut Buoy	53° 41.0' N 3° 09.0' W	<b>L.FI.W.</b> period 10s			SAFE WATER White sphere, red vertical stripes.	
RIBBLE RIVER:							
5192 A 4927.6	--N. training wall	53° 43.2' N 3° 02.8' W	<b>FI.R.</b> period 5s	20 6	3	Red solid metal perch with tripod support; 39.	
5200 A 4940	Southport, pier, head	53° 39.4' N 3° 01.4' W	<b>2F.G.(vert.)</b>	20 6	5	White post.	Visible 33°-213°.
RIVER MERSEY:							
5213 A 4952	--New Brighton breakwater No 13	53° 26.5' N 3° 02.1' W	<b>2F.G.(vert.)</b>	13 4	2	Metal mast, green triangle, point up daymark; 39.	2 meters apart.
5214 A 4952.2	--Corner, No 12	53° 26.6' N 3° 02.2' W	<b>2F.G.(vert.)</b>	13 4	2	Metal mast, green triangle, point up daymark; 33.	2 meters apart.
5215 A 4952.4	--No 11, NW. head	53° 26.8' N 3° 02.8' W	<b>2F.G.(vert.)</b>	13 4	2	Metal mast, green triangle, point up daymark; 36.	2 meters apart.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>ENGLAND-WEST COAST</b>							
5215.4 A 4952.6	--No 2	53° 24.7' N 3° 08.6' W	<b>Fl.W.</b>	20 6		N. CARDINAL Yellow beacon, black base.	
5216 A 4954	--N. corner of head of ferry pier	53° 24.6' N 3° 00.9' W	<b>3F.G.</b>	16 5	2	Metal column; 10.	In shape of point up triangle.
5220 A 4956	--Center of head	53° 24.6' N 3° 00.9' W	<b>F.Y.</b>	26 8	6	Tower on building; 33.	
5224 A 4958	--S. corner of head	53° 24.6' N 3° 00.9' W	<b>3F.G.</b>	16 5	2	Metal column; 10.	In shape of triangle. <b>Bell:</b> 3 strokes ev. 20s
5232 A 4972	--Woodside Landing Stage, N. head	53° 23.8' N 3° 00.5' W	<b>2F.G.</b>	16 5	2	Metal column; 16.	In shape of triangle, point up.
5236 A 4974	---S. head	53° 23.7' N 3° 00.5' W	<b>2F.G.(vert.)</b>	16 5	2	Metal column.	
5240 A 4975	-Cammell Laird, SE. corner of slip	53° 24.0' N 3° 00.3' W	<b>Fl.(2)G.</b> period 6s	16 5	5	White structure; 29.	
5244 A 4977	-Tranmere Terminal, N. dolphin	53° 22.9' N 3° 00.1' W	<b>Fl.G.</b> period 3s	23 7	7	Dolphin.	
5248 A 4978	-N. Stage, N. head	53° 22.8' N 3° 00.0' W	<b>2F.G.(vert.)</b>	33 10	3		2 meters apart. <b>Bell:</b> 2 strokes ev. 10s
5252 A 4978.2	--S. head	53° 22.8' N 2° 59.9' W	<b>2F.G.(vert.)</b>	33 10	5		
5256 A 4979	-S. Stage, N. head	53° 22.7' N 2° 59.9' W	<b>2F.G.</b>	30 9	3		In shape of triangle, point up.
5260 A 4979.2	--S. head	53° 22.6' N 2° 59.9' W	<b>2F.G.(vert.)</b>	33 10	5		
5273 A 4980.7	-Outfall	53° 22.2' N 2° 59.6' W	<b>2F.G.(vert.)</b>			Beacon, green triangle, point up daymark.	
5276 A 4981	-Bromborough Dock, jetty, N. head	53° 21.7' N 2° 59.0' W	<b>3F.G.</b>	16 5	3	Metal post and crossbar.	In shape of triangle, point down.
5278 A 4983	--Sewer outfall	53° 21.2' N 2° 58.3' W	<b>2F.G.(vert.)</b>				
5280 A 4985	--Jetty, S. head	53° 20.8' N 2° 58.1' W	<b>3F.G.</b>	16 5		Metal post and crossbar.	In shape of triangle, point down.
5300 A 4994	--Eastham Locks, Center Island	53° 19.4' N 2° 56.8' W	<b>Oc.W.R.G.</b>			Inbound traffic signals. secondary structure: outbound traffic signals.	<b>Bell:</b> When tide serves.
<b>F.</b>							
5320 A 5024	--NW. dolphin	53° 20.9' N 2° 54.6' W	<b>Fl.G.</b> period 2s	39 12	9	Mast on black dolphin.	
5324 A 5020	--E. jetty, head	53° 20.9' N 2° 54.6' W	<b>Fl.R.</b> period 2s	36 11	8	Grey latticed tower, diamond (rhombus) daymark; 26.	
5328 A 5026	--Stalbridge dock, S. side of entrance	53° 20.9' N 2° 54.4' W	<b>2F.G.(vert.)</b>	33 10	3	Blue cylindrical metal tower; 33.	Docking signals.
5336 A 5063	--Liverpool Landing Stage, N. head	53° 24.5' N 3° 00.1' W	<b>3F.R.</b>	10 3	4	Metal column; 3.	In shape of triangle, point up.
5340 A 5058	---S. head	53° 24.3' N 2° 59.9' W	<b>2F.R.(vert.)</b>				
5344 A 5091	--Langton River Entrance	53° 26.1' N 3° 00.5' W	<b>Iso.W.R.G.</b> period 4s				R. 34°-39°, W. -49°, G. -54°. Intersection with white sector marks S limit of dredged area.
<b>F.R.</b>							
5348 A 5092	--213 meters from lock entrance	53° 26.2' N 3° 00.5' W	<b>Fl.W.R.G.</b> period 2s				R. 69°-74°, W. -84°, G. -89°.
<b>F.R.</b>							

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<b>ENGLAND-WEST COAST</b>							
5352 A 5093	--122 meters from lock entrance	53° 26.3' N 3° 00.5' W	<b>Oc.W.R.G.</b> period 4s lt. 3s, ec. 1s				R. 69°-74°, W. -84°, G. -89°.
			<b>F.R.</b>				
5356 A 5102	--212 meters from lock entrance	53° 26.9' N 3° 01.0' W	<b>Oc.W.R.G.</b> period 4s lt. 3s, ec. 1s				R. 62°-67°, W. -77°, G. -82°.
			<b>F.R.</b>				
5364 A 5104	--122 meters from lock entrance	53° 26.9' N 3° 01.0' W	<b>FI.W.R.G.</b> period 2s				R. 62°-67°, W. -77°, G. -82°.
			<b>F.R.</b>				
RIVER DEE:							
5380 A 5115	-Hilbre Island	53° 23.0' N 3° 13.7' W	<b>FI.R.</b> period 3s fl. 0.5s, ec. 2.5s	46 14	5	White metal framework tower; 10.	
5384 A 5116	-West Hoyle Spit (Earwig). Outer 090°	53° 21.2' N 3° 24.1' W	<b>Dir.Iso.W.R.G.</b> period 2s		W. 10 R. 7 G. 7	Perch pile.	G. 87°30'-89°30', W. -90°30', R. -92°30'. Occasional Range 3/2M by day.
			<b>Q.G.</b>		5		Occasional.
5384.1 A 5116.05	-Port of Mostyn, Inner 177°30'	53° 19.3' N 3° 16.0' W	<b>Dir.F.W.R.G.</b> period 2s		W. 10 R. 7 G. 7	Yellow latticed tower.	G. 175°30'-177°30', W. -178°, R. -180°. Range 3/2M by day.
5388 A 5118	-N. training wall, outer end, opposite Flint	53° 15.1' N 3° 06.5' W	<b>FI.R.</b> period 2s	13 4	6	Metal framework tower; 26.	Length marked by 10 pole perches.
5392 A 5119	-S. training wall, near outer end	53° 14.0' N 3° 04.5' W	<b>FI.G.</b> period 5s	10 3	6	Metal framework tower, green triangle, point up daymark; 23.	
LIVERPOOL BAY:							
5395 A 512	Gwynt Y Mor, offshore wind farm, meteorological mast	53° 28.8' N 3° 30.5' W	<b>FI.Y.</b> period 5s	59 18	5	Yellow steel pile.	
<b>WALES-NORTH AND WEST COASTS</b>							
RHYL:							
5396 A 5125	-Breakwater, head	53° 19.5' N 3° 30.3' W	<b>Q.R.</b>	23 7	2	Beacon.	
5400 A 5127	Llanddulas, Llysfaen jetty	53° 17.6' N 3° 39.4' W	<b>2F.G.</b> (vert.)				
5408 A 5132	Llandudno, pier, head	53° 19.9' N 3° 49.5' W	<b>2F.G.</b> (vert.)	26 8	4	Mast; 16.	2 meters apart.
RHYL:							
5412	West Constable Buoy	53° 23.1' N 3° 49.2' W	<b>Q.(2)W.</b> period 15s				
	RACON		<b>M(- -)</b>		10		(3 & 10 cm).
5416 A 5138	Conwy River, entrance	53° 18.1' N 3° 50.8' W	<b>L.FI.G.</b> period 15s	16 5	2	Perch; 36.	
MENAI STRAIT:							

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>WALES-NORTH AND WEST COASTS</b>							
5420 A 5140	-Menai, Trwyn~duPoint	53° 18.8' N 4° 02.5' W	<b>FI.W.</b> period 5s fl. 1s, ec. 4s	62 19	9	White round castellated tower, black bands; 95.	Visible 101°-23°. Partially obscured. Sounded continuously. F.R. marks radio mast about 4 km SW. of Trwyn-Du. <b>Horn:</b> 1bl. ev. 30s (bl. 3s, si. 27s)
5428 A 5146	-Beaumaris, on pier	53° 15.7' N 4° 05.3' W	<b>2FI.(3)G.</b> period 10s	16 5	6	Mast; 13.	
5440 A 5155	-St. George's pier	53° 13.5' N 4° 09.4' W	<b>FI.G.</b> period 10s fl. 1s, ec. 9s			Mast.	
5444 A 5156.5	-Price Point	53° 13.1' N 4° 10.4' W	<b>FI.W.R.</b> period 2s	16 5	3	White beacon; 16.	R. 59°-239°, W. -259°.
5448 A 5157	-Britannia Tubular Bridge Caernarvon shore, front	53° 12.9' N 4° 11.0' W	<b>F.W.</b>			Metal framework tower; 16.	Shown from Apr. to Sep.
5452 A 5157.1	--Rear, 45 meters 231° from front	53° 12.9' N 4° 11.0' W	<b>F.W.</b>			Metal framework tower; 30.	Shown from Apr. to Sep.
5456 A 5157.1	-Center of span	53° 12.9' N 4° 11.0' W	<b>Iso.W.</b> period 5s	89 27	3	Bridge.	1 on either side of bridge.
5464 A 5160	Point Lynas	53° 25.0' N 4° 17.4' W	<b>Oc.W.</b> period 10s lt. 7.3s, ec. 2.7s	128 39	18	White castellated tower; 36.	Visible 109°-315°. Shown 24 hours. <b>Dgps station.</b>
5465 A 5164.4	-Main Breakwater	53° 25.0' N 4° 19.8' W	<b>FI.G.</b> period 15s	36 11	3	White mast; 20.	Visible 141°-271°.
5466 A 5164.5	-Inner Breakwater	53° 25.0' N 4° 19.9' W	<b>2F.R.</b> (vert.)	39 12	5	White mast; 23.	Visible 164°-239°. 2 meters apart.
5468 A 5166	Wylfa Power station pier, head	53° 25.5' N 4° 29.5' W	<b>2F.G.</b> (vert.)	43 13	6		
5472 A 5168	Skerries	53° 25.3' N 4° 36.5' W	<b>FI.(2)W.</b> period 15s fl. 0.1s, ec. 3.2s fl. 0.1s, ec. 11.6s	118 36	20	White round tower, red bands.	Shown in reduced visibility. <b>Horn:</b> 2 bl. ev. 60s (bl. 1s, si. 2s, bl. 1s, si. 56s).
			<b>Iso.R.</b> period 4s	85 26	10		Visible 231°-254°. Shown in reduced visibility.
	RACON		<b>T(-)</b>		25		(3 & 10 cm).

#### WALES-WEST COAST

HOLYHEAD:							
5476 A 5174	-Breakwater, head	53° 19.9' N 4° 37.2' W	<b>FI.(3)G.</b> period 10s	69 21	14	White square stone tower, black band; 62.	Visible 54°-46°. <b>Horn:</b> 1 bl. ev. 20s (bl. 3s, si. 17s).
			<b>FI.Y.</b>				Visible 354°-46°.
5478 A 5174.5	--Elbow	53° 19.5' N 4° 37.6' W	<b>2F.G.</b> (vert.)		2	Metal structure.	Visible 226°-89°.
5484 A 5178	--128 meters E. off breakwater, head	53° 18.9' N 4° 37.0' W	<b>2F.G.</b> (vert.)	26 8	5	Concrete mast on dolphin; 26.	
5492 A 5181	--South quay, head	53° 18.7' N 4° 37.2' W	<b>2F.R.</b> (vert.)	23 7		Mast, red square daymark; 16.	Visible in dredged channel. 2 meters apart.
5496 A 5182	--Outer dredged channel, N. side	53° 18.8' N 4° 37.5' W	<b>FI.G.</b> period 3s	23 7		Beacon.	Visible in dredged channel.
5500 A 5184	--Inner dredged channel, N. side	53° 18.8' N 4° 37.6' W	<b>FI.G.</b> period 5s	20 6		Beacon.	
5504 A 5186	--E. side of entrance, near N. end of public quay	53° 18.8' N 4° 37.4' W	<b>2F.R.</b> (vert.)	20 6	5	Mast.	Top light extinguished (temporary) 2023.

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<b>WALES-WEST COAST</b>							
5512 A 5198	-New Harbor, Mackenzie pier	53° 19.0' N 4° 38.0' W	<b>FI.R.</b> period 5s				
5520 A 5204	South Stack	53° 18.4' N 4° 42.0' W	<b>FI.W.</b> period 10s fl. 0.2s, ec. 9.8s	197 60	24	White round tower; 92.	Shown 24 hours. Obscured to the NE by the land rising from North Stack Signal Station (disused) to Holyhead Mountain. May be obscured in Penrhos Bay by the high land of Penrhyn Mawr. Visible over the land SW when in line with Rhoscolyn Beacon. <b>Horn:</b> 1bl. ev. 30s (bl. 3s, si. 27s)
5522 A 5205	Valley Airfield AVIATION LIGHT	53° 14.9' N 4° 31.5' W	<b>Mo.(VY)R.</b>				Occasional.
CAERNARVON BAY:							
5528 A 5210	--Llanddwyn Island, SW. head	53° 08.0' N 4° 24.8' W	<b>FI.W.R.</b> period 2.5s fl. 0.3s, ec. 2.2s	39 12	W. 7 R. 4	White tower.	R. 280°-15°, W. -120°.
5532 A 5212	--Abermenai	53° 07.6' N 4° 19.6' W	<b>FI.W.R.</b> period 3.5s fl. 0.5s, ec. 3s	20 6	3	White mast; 16.	W. 245°-65°, R. -245°.
5536 A 5213	--Tidal basin, S. pier, head	53° 08.6' N 4° 16.6' W	<b>2F.G.</b> (vert.)	16 5	2	Masonry column.	
5540 A 5214	--Pile pier, head	53° 08.7' N 4° 16.4' W	<b>2F.G.</b> (vert.)	16 5	2	White tower, black stripe; 13.	Traffic signals on entrance to Victoria Dock close S.
5544 A 5220	-Port Dinorwic, pier, head	53° 11.2' N 4° 12.6' W	<b>F.W.R.</b>	16 5	2	Post; 9.	R. 225°-357°, W. -225°.
5548 A 5234	Bardsey	52° 45.0' N 4° 47.9' W	<b>FI.R.</b> period 10s fl. 0.7s, ec. 9.3s	128 39	18	White square tower, red banded; 98.	R. 260°-198°. Obscured by the Bardsey Island 198°-250°. Partially obscured 250°-260° when in Tremadoc Bay.
5552 A 5238	St. Tudwal's W. Island	52° 48.0' N 4° 28.2' W	<b>FI.W.R.</b> period 15s fl. 1s, ec. 14s	151 46	W. 14 R. 10	White round tower; 35.	W. 349°-169°, R.-221°, W.-243°, R.-259°, W.-293°, R.-349°. Obscured by East Island 211°-231°.
5556 A 5246	Barmouth, N. Bank	52° 42.8' N 4° 03.7' W	<b>Q.(6) + L.FI.W.</b> period 15s			S. CARDINAL Black beacon, yellow top.	
5560 A 5254	Aberystwyth, S. pier, head	52° 24.4' N 4° 05.5' W	<b>FI.(2)W.G.</b> period 10s fl. 1s, ec. 1s fl. 1s, ec. 7s	39 12	10	Green column, white banded; 39.	G. 30°-53°, W. -210°. Seasonal.
5564 A 5256	-Timber jetty, head	52° 24.4' N 4° 05.3' W	<b>Q.W.R.</b>	30 9	4	Red column, white banded; 13.	W. 244°-141°, R. -175°.
5566 A 5257	Aberaeron, S. pier	52° 14.6' N 4° 15.9' W	<b>FI.(3)G.</b> period 10s	36 11	6	White post, green banded.	Visible 50°-243°.
5566.5 A 5257.2	-N. pier	52° 14.6' N 4° 15.9' W	<b>FI.(4)W.R.G.</b> period 15s	33 10	6	White post, red banded.	G. 50°-104°, W. -178°, R. -232°.
5568 A 5258	New Quay, pier, head	52° 12.9' N 4° 21.2' W	<b>FI.W.G.</b> period 3s fl. 1s, ec. 2s	39 12	W. 8 G. 5	Post.	W. 135°-252°, G. -295°.
5569.1 A 5258.6	-Cardigan Beacon	52° 06.4' N 4° 41.4' W	<b>FI.(2)W.</b> period 5s			ISOLATED DANGER Black beacon, red banded.	
FISHGUARD HARBOUR:							
5572 A 5262	-N. breakwater, head	52° 00.8' N 4° 58.2' W	<b>FI.G.</b> period 4.5s fl. 0.5s, ec. 4s	59 18	13	Octagonal concrete tower; 67.	<b>Bell:</b> 1 stroke ev. 8s
5576 A 5264	-E. breakwater, head	52° 00.3' N 4° 58.9' W	<b>FI.R.</b> period 3s fl. 0.3s, ec. 2.7s	33 10	5	Metal framework tower; 36.	
5580 A 5266	-Range, front	52° 00.7' N 4° 59.3' W	<b>F.G.</b>	253 77	5	White mast, white diamond (rhombus) daymark.	

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>WALES-WEST COAST</b>							
5584 A 5266.1	--Rear, 46 meters 282° from front	52° 00.7' N 4° 59.3' W	<b>F.G.</b>	292 89	5	White mast, white diamond (rhombus) daymark; 26.	
5588 A 5270	Penanglas, near point, FOG SIGNAL	52° 01.5' N 4° 59.4' W				White obelisk.	<b>Diaphone:</b> 2bl. ev. 60s
5592 A 5274	Strumble Head	52° 01.8' N 5° 04.4' W	<b>Fl.(4)W.</b> period 15s fl. 0.1s, ec. 2.2s fl. 0.1s, ec. 2.2s fl. 0.1s, ec. 2.2s fl. 0.1s, ec. 8s	148 45	26	White round tower; 56.	Visible 38°-257°. Shown 24 hours.
5596 A 5276	South Bishop	51° 51.2' N 5° 24.7' W	<b>Fl.W.</b> period 5s fl. 0.1s, ec. 4.9s	144 44	16	White round tower; 36.	Shown in reduced visibility. Horn: 3 bl. ev. 45s (bl. 1s, si. 1s, bl. 1s, si. 1s, bl. 1s, si. 40s).
	RACON		<b>O(---)</b>				(3 & 10 cm).
5600 A 5278	The Smalls	51° 43.3' N 5° 40.2' W	<b>Fl.(3)W.</b> period 15s fl. 0.1s, ec. 2.5s fl. 0.1s, ec. 2.5s fl. 0.1s, ec. 9.7s	118 36	18	Grey round tower; 135.	Shown in reduced visibility.
			<b>Iso.</b> period 4s				Horn: 2 bl. ev. 60s (bl. 1s, si. 2s, bl. 1s, si. 56s).
	RACON		<b>T(-)</b>		10		(3 & 10 cm).
5604 A 5282	Skokholm	51° 41.6' N 5° 17.2' W	<b>Fl.W.R.</b> period 10s fl. 0.2s, ec. 9.8s	177 54	8	White octagonal tower; 59.	W. 301°-154°, R.-301°. Partially obscured 226°-258°.
MILFORD HAVEN:							
5608 A 5284	-St. Ann's Head	51° 40.9' N 5° 10.4' W	<b>Fl.W.R.</b> period 5s fl. 0.7s, ec. 4.3s	157 48	<b>W. 18</b> R. 14	White octagonal tower; 43.	W. 233°-247°, R.-332°, W.-131°. Partially obscured 124°-129°. Radar scanner 7m SW. Horn: 2bl. ev. 60s (bl. 5s, si. 5s, bl. 5s, si. 45s)
5612 A 5285	-Middle Channel Rocks	51° 40.3' N 5° 09.8' W	<b>Fl.(3)G.</b> period 7s fl. 0.1s, ec. 1.6s fl. 0.1s, ec. 1.6s fl. 0.1s, ec. 3.5s	59 18	8	Black round metal tower, aluminum lantern.	
5616 A 5286	-Entrance, First Range, front, West Blockhouse Point	51° 41.3' N 5° 09.5' W	<b>F.W.</b>	177 54	13	White concrete tower, black rectangular daymark, white stripe; 43.	Visible 4°30'-40°30' Range 10M by day.
	RACON		<b>Q(---)</b>				Visible 10°-230°. (3 & 10 cm).
5620 A 5286.3	--Watwick Point, common rear 926 meters 022°30' from front	51° 41.8' N 5° 09.2' W	<b>F.W.</b>	262 80	15	Black rectangular daymark, white stripe; 164.	Visible 13°30'-31°30' Range 10M by day.
	RACON		<b>Y(- - -)</b>				(3 & 10 cm).
5624 A 5286.1	-Auxiliary front, in line 021°18' with common rear Watwick Point	51° 41.3' N 5° 09.5' W	<b>F.R.</b>	174 53	12	White concrete tower, black diamond (rhombus) daymark; 49.	Visible 14°-31° Range 5M by day. Watwick Point marks E. side of channel.
5628 A 5286.2	-Auxiliary front, in line 023°42' with common rear Watwick Point	51° 41.3' N 5° 09.5' W	<b>F.R.</b>	174 53	12	White concrete tower, black diamond (rhombus) daymark; 35.	Visible 14°-31°. Range 5M by day, visible 17°-28°. Watwick Point marks W. side of channel.
5632 A 5287	-Great Castle Head	51° 42.6' N 5° 07.0' W	<b>F.W.R.G.</b>	89 27	W. 5 R. 3 G. 3	White square tower, black stripe; 16.	R. 243°-281°, G. -299°, W. -29°. Shown by day on request.
			<b>Dir.F.W.R.G.</b>				G. 038°15'-039°00', Al.W.G.-039°30', W.-040°30', Al.W.R.-041°00', R.-041°45.
			<b>Oc.W.</b> period 4s	89 27	15		Visible 31°12'-48°12' Range 10M by day. Range 10M by day, visible 32°12'-47°12'.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>WALES-WEST COAST</b>							
5636 A 5287.1	--Little Castle Head, rear, 890 meters 039°42' from front	51° 43.0' N 5° 06.5' W	<b>Oc.W.</b> period 8s lt. 6s, ec. 2s	174 53	15	White round concrete tower, white rectangular daymark, black stripe; 85.	Visible 31°12'-48°12'. Range 10M by day, visible 32°12'-47°12'.
5640 A 5291	--West Blockhouse Point	51° 41.3' N 5° 09.5' W	<b>Q.W.R.</b>	69 21	W. 9 R. 7	Red lantern; 7.	W. 220°-250°, R. -20°, W. - 36°, R. -49°.
5644 A 5292	--Dale Fort	51° 42.1' N 5° 08.9' W	<b>Fl.(2)W.R.</b> period 5s fl. 0.5s, ec. 1s fl. 0.5s, ec. 3s	66 20	W. 5 R. 3	Metal column; 10.	R. 222°-276°, W. -19°.
5648 A 5292.39	--Popton Point Range, front, 274° from common rear	51° 41.7' N 5° 03.0' W	<b>Iso.Y.</b> period 1.5s	36 11	13	White diamond daymark, black stripe.	Visible 84°-104°. Range 5M by day, visible 89°30'-98°30'.
5652 A 5292.4	--Common rear	51° 41.6' N 5° 02.1' W	<b>Oc.W.</b> period 4s lt. 3s, ec. 1s	62 19	14	Metal framework tower, white triangular daymark, point up, black stripe.	Visible 85°-105°. Range 7M by day, visible 90°30'-99°30'.
			<b>Iso.Y.</b> period 1.5s				
			<b>F.Bu.</b>	98 30	8		
5656 A 5292.41	--Front, 275° from common rear	51° 41.7' N 5° 03.0' W	<b>Iso.W.</b> period 1.5s	36 11	14	Metal framework tower, white round daymark, black stripe.	Visible 85°-105°. Range 7M by day, visible 90°30'-99°30'.
5660 A 5294.9	--S. Range, front, 330 meters 260° from rear	51° 42.2' N 5° 00.4' W	<b>Oc.W.</b> period 3s lt. 2s, ec. 1s	138 42	14	Metal framework tower, white rectangular daymark, red stripe; 33.	Visible 70°-90°. Range 7M by day. Shown on request from Milford Haven Port Control.
5664 A 5295	--Common rear	51° 42.2' N 5° 00.1' W	<b>Oc.W.Y.</b> period 3s lt. 2s, ec. 1s	167 51	W. 14 Y. 13	Metal framework tower, white rectangular daymark, black stripe; 26.	W. 70°-90°, Y. 77°-97° Range W. 7M and Y. 5M by day, Visible 75°30' - 84°30'. Shown on request from Milford Haven Port Control.
5668 A 5295.1	--N. Range, front, 320 meters 267° from rear	51° 42.2' N 5° 00.3' W	<b>Oc.Y.</b> period 3s lt. 2s, ec. 1s	135 41	13	Metal framework tower, black rectangular daymark, red stripe; 16.	Visible 77°-97°. Range 5M by day, visible 82°30'-91°30'.
5669 A 5313.6	--Dragon Terminal, W. side, front	51° 42.0' N 5° 00.2' W	<b>F.Bu.</b>	30 9	7	Dolphin.	Shown on request from Milford Haven Port Control. Horn: Mo.(U) ev. 30s.
			<b>3F.(vert.)</b>				
5669.1 A 5313.61	--Rear, 090°50' from front	51° 42.0' N 4° 59.4' W	<b>F.Bu.</b>	69 21	7	White rectangular daymark, grey stripe.	Shown on request from Milford Haven Port Control.
5672 A 5307	--E. pier Range, front	51° 42.6' N 5° 02.1' W	<b>F.Bu.</b>	16 5		Black hut; 16.	LED strip light. Temporarily extinguished 2023.
5676 A 5307.1	--Rear, 299 meters 348° from front	51° 42.7' N 5° 02.2' W	<b>F.Bu.</b>	66 20		Black column; 13.	LED strip light.
5680 A 5308	--W. pier, head	51° 42.2' N 5° 02.2' W	<b>2F.R.(vert.)</b>	30 9		White mast; 29.	
5692 A 5310.2	--Newton Noyes, pier, head	51° 42.1' N 5° 00.7' W	<b>2F.R.(vert.)</b>	20 6	3	Black metal mast; 16.	Unreliable (temporary) 2022.
5696 A 5311.2	--Wear Spit Range, front	51° 41.8' N 4° 58.8' W	<b>Q.R.</b>	23 7	8	Black round column, red and white striped triangle, point up daymark.	
5700 A 5311.21	--Rear, 0.78 mile 098°24' from front, on SW. Martello tower	51° 41.6' N 4° 57.5' W	<b>Iso.R.</b> period 4s	46 14	3		Occasional. Activated on request to vessel traffic services on VHF channel 12.
5704 A 5311	--Pennar Range, front	51° 41.6' N 4° 58.2' W	<b>Q.W.</b>	23 7	8	Pile, black triangle, point up daymark, white stripe.	
5708 A 5311.1	--Llanreath, rear, 640 meters 101°48' from front	51° 41.5' N 4° 57.7' W	<b>Iso.W.</b> period 4s	30 9	14	Pile, black triangle, point up daymark, white stripe.	Visible 97°-105°.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>WALES-WEST COAST</b>							
5712 A 5316	--Pembroke dock Range, front	51° 41.8' N 4° 57.3' W	<b>Q.G.</b>	16 5		White diamond daymark, black stripe.	
5716 A 5316.1	--Rear, 82 meters 153° from front	51° 41.8' N 4° 57.3' W	<b>Q.G.</b>	30 9		White diamond daymark, black stripe.	
<b>WALES-BRISTOL CHANNEL</b>							
5720 A 5317	--Carr jetty, head	51° 41.9' N 4° 57.4' W	<b>2F.G.</b> (vert.)	49 15			
5724 A 5317.2	---Elbow	51° 41.9' N 4° 57.4' W	<b>2F.G.</b> (vert.)	49 15			
5725 A 5319.5	-Fish Farm, NW. head	51° 42.1' N 4° 55.5' W	<b>2F.G.</b> (vert.)				
5726 A 5319.6	--SE. head	51° 42.1' N 4° 55.3' W	<b>2F.G.</b> (vert.)				
5728 A 5322	St. Gowan Buoy	51° 31.9' N 4° 59.7' W	<b>Q.(2) + L.FI.W.</b> period 15s			S. CARDINAL Yellow column, black topmark.	Whistle.
	RACON		<b>T(-)</b>				(3 & 10 cm).
	CARMARTHEN BAY:						
5732 A 5328	-Caldy Island, S. side	51° 37.9' N 4° 41.1' W	<b>Fl.(3)W.R.</b> period 20s fl. 0.9s, ec. 1.1s fl. 0.9s, ec. 1.1s fl. 0.9s, ec. 15.1s	213 65	W. 13 R. 9	White round tower; 52.	R. 173°-212°, W. -88°, R. - 102°.
5736 A 5336	--Harbor pier, head	51° 40.4' N 4° 41.9' W	<b>F.R.</b>	23 7	7	Metal mast; 16.	
5740 A 5338	--Harbor pier, near head	51° 40.4' N 4° 41.8' W	<b>F.W.</b>	20 6	1	Post; 10.	
5744 A 5342	-Saundersfoot, S. pier, head	51° 42.6' N 4° 41.7' W	<b>Fl.R.</b> period 5s fl. 1s, ec. 4s	20 6	7	Masonry cupola; 12.	
5748 A 5356	-Burry Port	51° 40.6' N 4° 15.0' W	<b>Fl.W.</b> period 5s	23 7	7	White tower, red top.	
5754	W. Helwick Buoy	51° 31.4' N 4° 23.6' W	<b>Q.(9)W.</b> period 15s			W. CARDINAL Yellow pillar, black banded, topmark.	Whistle.
	RACON		<b>T(-)</b>				(3 & 10 cm).
	SWANSEA BAY:						
5756 A 5358	-Mumbles	51° 34.0' N 3° 58.3' W	<b>Fl.(4)W.</b> period 20s fl. 0.8s, ec. 1.7s fl. 0.8s, ec. 1.7s fl. 0.8s, ec. 1.7s fl. 0.8s, ec. 11.7s	115 35	15	White octagonal tower; 56.	<b>Horn:</b> 1bl. ev. 30s (bl. 3s, si. 27s)
5760 A 5360	--Railway pier	51° 34.2' N 3° 58.4' W	<b>2F.R.</b> (vert.)	36 11	9	White latticed tower; 23.	
5764 A 5364	--W. pier, head	51° 36.5' N 3° 55.7' W	<b>Fl.(2)R.</b> period 10s fl. 1.5s, ec. 1.5s fl. 1.5s, ec. 5.5s	36 11	9	Yellow metal column; 23.	F.R. lights on radio mast 1.3 miles NNE.
5768 A 5367	--E. breakwater, head	51° 36.4' N 3° 55.6' W	<b>2F.G.</b> (vert.)	33 10	6	Yellow latticed tower; 23.	
5769 A 5370	--Barrage, E. side	51° 36.9' N 3° 55.6' W	<b>2F.G.</b> (vert.)	16 5	1	Metal post; 10.	2 meters apart.
5770 A 5370.2	---W. side	51° 36.9' N 3° 55.7' W	<b>2F.R.</b> (vert.)	16 5	1	Metal post; 10.	2 meters apart. Traffic signals on lock.

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<b>WALES-BRISTOL CHANNEL</b>							
5772 A 5367	--New Approach jetty, Range, front	51° 36.5' N 3° 55.5' W	<b>Oc.G.</b> period 4s	16 5	2		Mark E limit of dredged area. Obscured when bearing less than 020°. Conspicuous R and G traffic signals 300 meters N.
5776 A 5367.1	---Rear, 260 meters 020° from front	51° 36.7' N 3° 55.4' W	<b>F.G.</b>		6		
5780 A 5369	-Car Ferry terminal, S. head	51° 36.8' N 3° 55.5' W	<b>2F.G.</b> (vert.)	30 9	5		3 meters apart.
5784 A 5374	--Monkstone	51° 36.3' N 3° 51.9' W	<b>Fl.(2)G.</b> period 6s	20 6	5	Green mast; 43.	Emergency F.R. lights on chimney 1.45 miles ENE.
5788 A 5376	--Middle of training wall	51° 36.7' N 3° 51.3' W	<b>Fl.G.</b> period 1.5s	20 6	5	Green mast; 43.	
5792 A 5377	--Training wall, N. head	51° 37.1' N 3° 50.8' W	<b>Fl.(3)G.</b> (vert.) period 10s	20 6	5	Green mast; 30.	Emergency reserve light 2 F.G. (vert.).
5794 A 5373	--Entrance	51° 37.2' N 3° 50.6' W	<b>F.Bu.</b>		8	Metal framework tower; 26.	
			<b>2F.R.</b> (vert.)				
5797 A 5381	-Baglan Brook. Pumping station	51° 37.4' N 3° 49.9' W	<b>2F.G.</b> (vert.)			Green beacon.	
5800 A 5391	--Range, front	51° 35.0' N 3° 47.7' W	<b>Oc.R.</b> period 3s lt. 2s, ec. 1s	39 12	6	Metal framework tower, yellow and orange diamond daymark; 39.	Shown when required.
5804 A 5391.1	---Rear, 400 meters 059°49' from front	51° 35.0' N 3° 47.7' W	<b>Oc.R.</b> period 3s	105 32	6	Metal framework tower, yellow and orange diamond daymark; 98.	Shown when required.
5805 A 5389	-N. breakwater, head	51° 34.8' N 3° 49.0' W	<b>Fl.(4)R.</b> period 10s fl. 0.7s, ec. 1s fl. 0.7s, ec. 1s fl. 0.7s, ec. 1s fl. 0.7s, ec. 4.2s	36 11	3	Metal framework tower.	
5806 A 5390	-S. breakwater, head	51° 34.4' N 3° 49.0' W	<b>Fl.G.</b> period 3s fl. 0.5s, ec. 2.5s	36 11	3	Metal framework tower.	
5807 A 5394	--Ore terminal, head	51° 34.4' N 3° 48.2' W	<b>2F.Y.</b> (vert.)	30 9	1	Concrete column on dolphin.	2 meters apart.
5808 A 5395	--Dredged area, NE. side	51° 34.8' N 3° 48.3' W	<b>Fl.R.</b> period 2s	26 8	2	Concrete column on dolphin.	
5808.1 A 5395.2	---E. side	51° 34.6' N 3° 48.0' W	<b>Fl.R.</b> period 2s	20 6	1	Pile structure.	
5808.2 A 5395.3	----N. limit	51° 34.5' N 3° 47.7' W	<b>Iso.W.</b> period 2s	23 7	1	Mast.	Marks N. limit of 15 meter dredged area.
5808.3 A 5395.4	----S. limit	51° 34.3' N 3° 47.7' W	<b>Iso.W.</b> period 2s		2	Metal column.	Marks S. limit of 17.2 meter dredged area.
5808.4 A 5395.6	--S. side	51° 34.3' N 3° 48.4' W	<b>Fl.G.</b> period 2s	26 8	2	Concrete column on dolphin.	
5808.5 A 5395.8	--SW. side	51° 34.4' N 3° 48.7' W	<b>Fl.G.</b> period 2s	26 8	2	Concrete column on dolphin.	
5809	Cabenda Buoy	51° 33.3' N 3° 52.4' W	<b>V.Q.(6)+L.Fl.W.</b> period 10s			S. CARDINAL Yellow pillar, black base, topmark.	
	RACON		<b>C(- • - •)</b>				(3 & 10 cm).
5810	W. Scarweather Buoy	51° 28.3' N 3° 55.5' W	<b>Q.(9)W.</b> period 15s			W. CARDINAL Yellow pillar, black banded, topmark.	Bell.
	RACON		<b>T(-)</b> period 30s				(3 & 10 cm).

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>WALES-BRISTOL CHANNEL</b>							
5812 A 5402	Porthcawl, breakwater, SE. head	51° 28.4' N 3° 42.0' W	<b>F.W.R.G.</b>	33 10	W. 6 R. 4 G. 4	White hexagonal tower, black base; 30.	G. 302°-36°, W. -82°, R. - 116°.
5816 A 5406	Nash Point	51° 24.1' N 3° 33.1' W	<b>Fl.(2)W.R.</b> period 15s fl. 0.1s, ec. 3.7s fl. 0.1s, ec. 11.1s	184 56	<b>W. 19</b> R. 14	White round tower; 122.	R. 280°-290°, W. -100°, R. - 120°, W. -128°. <b>Dgps station.</b>
5820 A 5406.6	St. Hilary, AVIATION LIGHT	51° 27.4' N 3° 24.2' W	<b>Q.R.</b>	113 5 346	11	Radio mast; 751.	Obstruction.
			<b>4F.R.(vert.)</b>		6		
5824 A 5407	Breaksea Point, intake structure	51° 22.5' N 3° 24.5' W	<b>Fl.R.</b>	36 11		Concrete tower.	
5832 A 5410	Wenvoe, AVIATION LIGHT	51° 27.6' N 3° 16.9' W	<b>Q.W.</b>	127 6 389	12	Radio mast; 879.	Shown 24 hours. F.R. lights on radio mast nearby. Obstruction.
BARRY DOCK:							
5836 A 5412	-W. breakwater, head	51° 23.5' N 3° 15.5' W	<b>Fl.W.</b> period 2.5s fl. 0.1s, ec. 2.4s	39 12	10	White round tower; 30.	
5840 A 5419	-No 3 Dock, entrance	51° 23.6' N 3° 15.6' W	<b>2F.R.(vert.)</b>			Dolphin.	2 meters apart.
5844 A 5413	-E. breakwater, head	51° 23.5' N 3° 15.4' W	<b>Q.G.</b>	23 7	8	Mast; 17.	
5856 A 5411	Barry Harbor, Yorke Rock breakwater, head	51° 23.4' N 3° 17.1' W	<b>2F.G.(vert.)</b>	16 5	5	Column; 13.	
5860 A 5426	Flat Holm	51° 22.5' N 3° 07.1' W	<b>Fl.(3)W.R.</b> period 10s fl. 0.4s, ec. 1.6s fl. 0.4s, ec. 1.6s fl. 0.4s, ec. 5.6s	164 50	<b>W. 15</b> R. 12	White round tower; 98.	R. 106°-140°, W. -151°, R. - 203°, W. -106°.
5864 A 5428	Monkstone Rock	51° 24.9' N 3° 06.0' W	<b>Fl.W.</b> period 5s fl. 0.9s, ec. 4.1s	43 13	12	Red fiberglass column on round masonry tower; 75.	
CARDIFF:							
5876 A 5440	-Queen Alexandra dock, S. jetty	51° 27.1' N 3° 09.5' W	<b>2F.G.(vert.)</b>				Unreliable (temporary) 2024.
5880 A 5440.3	--N. jetty	51° 27.2' N 3° 09.7' W	<b>2F.R.(vert.)</b>				
5900 A 5430	Penarth, Promenade pier, head	51° 26.1' N 3° 09.9' W	<b>2F.R.(vert.)</b>	26 8	3	Brown mast; 36.	2 meters apart. Port signals. Reed: Mo.(BA) ev. 60s. Sounded 10 min. before a vessel is expected.
USK RIVER:							
5904 A 5454	-East Usk	51° 32.4' N 2° 58.0' W	<b>Oc.W.R.G.</b> period 10s fl. 8s, ec. 2s	33 10	W. 11 R. 9 G. 9	White round tower; 43.	G. 11°-15°, W. -17°, R. -21°. 2M by day.
5908 A 5460	-Alexandra Dock, W. pier, head	51° 32.9' N 2° 59.2' W	<b>2F.R.(vert.)</b>	30 9	6	White metal framework tower; 21.	2 meters apart. Traffic signals. W and Bu dredging lights are shown when required on the S side of the river.
5912 A 5462	--E. pier, head	51° 33.0' N 2° 59.1' W	<b>2F.G.(vert.)</b>	30 9	6	White latticed tower; 20.	2 meters apart.
5920 A 5467	-Julian's Pill Range, front	51° 33.3' N 2° 57.9' W	<b>F.Bu.</b>	16 5	5	Mast; 10.	
5921 A 5467.1	--Rear, 44 meters 062° from front	51° 33.3' N 2° 57.9' W	<b>F.Bu.</b>	26 8	5	Mast; 20.	
USK RIVER:							

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>WALES-BRISTOL CHANNEL</b>							
5928 A 5470	-Alpha Steel Wharf, S. head	51° 33.3' N 2° 57.9' W	2F.G.(vert.)	13 4			2 meters apart.
5932 A 5470.2	--N. head	51° 33.4' N 2° 57.9' W	2F.G.(vert.)	13 4			2 meters apart.
5944 A 5472.5	-Birdport, jetty	51° 33.7' N 2° 58.1' W	2F.G.(vert.)	20 6			2 meters apart.
5948 A 5473	-Dallimores wharf	51° 33.9' N 2° 58.6' W	2F.G.(vert.)				
5952 A 5474	-Transporter Bridge, W. side	51° 34.3' N 2° 59.2' W	2F.R.(vert.)				2 F.Y. (vert.) shown on transporter car. Headway indicator lights for George Street bridge shown from E. pier of bridge.
5956 A 5474.2	--E. side	51° 34.2' N 2° 59.1' W	2F.G.(vert.)			Pier.	On upstream and downstream sides of bridge piers.
			FI.R. period 5s				Air draft indicator light.
			FI.G. period 5s				Air draft indicator light.
5972 A 5478	-Newport Bridge, center	51° 35.4' N 2° 59.6' W	F.Y.				
5976	English and Welsh Grounds Buoy	51° 26.9' N 3° 00.1' W	L.FI.W. period 10s			SAFE WATER Red pillar, white vertical stripes, topmark.	Whistle.
	RACON		T(-)				(3 & 10 cm).
<b>ENGLAND-BRISTOL CHANNEL</b>							
5984 A 5535	Charston Rock	51° 35.3' N 2° 41.6' W	FI.W. period 3s fl. 0.5s, ec. 2.5s	16 5	8	White round masonry tower, black stripe; 23.	
5988 A 5536	Redcliffe Range, front	51° 36.2' N 2° 41.3' W	F.Bu.	52 16		Black metal framework tower, white daymarks, lantern; 33.	Bu. 358°-28°.
5992 A 5536.1	-Rear, 320 meters 012°51' from front	51° 36.4' N 2° 41.2' W	F.Bu.	108 33	10	Neon metal mast; 98.	
5994 A 5541	Chapel Rock	51° 36.4' N 2° 39.1' W	FI.W. period 2.6s fl. 0.4s, ec. 2.2s	20 6	8	Black metal framework tower; 26.	
AVON RIVER:							
5996 A 5489	-Portbury wharf Range, front	51° 29.5' N 2° 44.2' W	Oc.G. period 5s lt. 3s, ec. 2s	23 7	3	Grey mast; 26.	Visible 171°30'-211°30' Visible 1M by day.
6000 A 5489.1	--Rear, 100 meters 191°33' from front	51° 29.5' N 2° 44.2' W	Oc.G. period 5s lt. 3s, ec. 2s	39 12	3	Grey mast; 39.	Visible 171°30'-211°30' Visible 1M G. 184°- 198°30' by day. Synchronized with front.
6010 A 5490	-Seabank Range, front	51° 30.1' N 2° 43.8' W	Q.(8)W. period 11s	43 13	5		Visible 70°18'-103°18' Visible 1M by day.
6010.1 A 5490.1	--Rear, 500 meters 086°47' from front	51° 30.1' N 2° 43.4' W	Q.(8)W. period 11s	52 16	5	White mast; 43.	Visible 70°18'-103°18' Visible 1M 76°- 96° by day.
6012 A 5490.2	-W. Dock pier, head	51° 30.2' N 2° 43.7' W	L.FI.G. period 15s fl. 3s, ec. 12s	16 5	6	White column; 6.	
6016 A 5490.4	--Pier corner	51° 30.1' N 2° 43.8' W	FI.G. period 2s fl. 0.8s, ec. 1.2s	23 7	7	White column; 16.	

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>ENGLAND-BRISTOL CHANNEL</b>							
6020 A 5490.6	--Knuckle Range, front	51° 29.9' N 2° 43.7' W	<b>Oc.G.</b> period 5s lt. 4s, ec. 1s	20 6	6	White column; 10.	
6020.1 A 5490.61	---Rear, 165 meters 099°34' from front	51° 29.9' N 2° 43.5' W	<b>F.G.</b>	43 13	6	On building.	Visible 44°-134°. Leads N of Portbury Outer buoy.
6024 A 5492	--Avonmouth Docks, N. pier, head	51° 30.5' N 2° 43.1' W	<b>Fl.W.</b> period 4s fl. 0.3s, ec. 3.7s	49 15	10	Round masonry tower; 52.	Visible 60°-228°30'.
6032 A 5492.21	---S. pier, head	51° 30.4' N 2° 43.1' W	<b>Oc.R.G.</b> period 30s lt. 27s, ec. 3s	30 9	10	Round masonry tower; 30.	R. 294°-36°, G. -194°. <b>Bell:</b> 1 strokes ev. 10s
6036 A 5494	--King Road Range, front, N. pier, head	51° 30.5' N 2° 43.1' W	<b>Oc.R.</b> period 5s lt. 4.5s, ec. 0.5s	16 5	9	White obelisk, red banded; 7.	Visible 62°-82°.
6040 A 5494.1	---Rear, 546 meters 072°26' from front	51° 30.6' N 2° 42.6' W	<b>Q.R.</b>	49 15	10	Red latticed tower, orange banded, white circle daymark, black stripe; 43.	Visible 66°-78°.
6044 A 5497	---Oil jetty, head	51° 30.6' N 2° 42.9' W	<b>2F.G.</b> (vert.)	16 5	2	Black column; 10.	2 meters apart.
6052 A 5500.9	---Avonmouth Range, front	51° 30.1' N 2° 42.6' W	<b>Iso.R.</b> period 2s	20 6	3	White beacon, orange rectangular daymark; 13.	Visible 10°-160°.
6056 A 5501	---Rear 142 meters 127°12' from front	51° 30.1' N 2° 42.5' W	<b>Iso.R.</b> period 2s	33 10	3	White beacon, orange rectangular daymark; 26.	Visible 48°-138°.
6060 A 5504	---Monoliths	51° 30.2' N 2° 42.8' W	<b>Fl.R.</b> period 5s fl. 1.5s, ec. 3.5s	16 5	3	Orange board, fronting white column; 13.	Visible 317°-137°.
6062 A 5505	-St. George Range, front	51° 29.8' N 2° 42.7' W	<b>Oc.G.</b> period 5s lt. 4s, ec. 1s	23 7	1	White mast, orange rectangular daymark; 16.	Visible 158°-305°.
6062.1 A 5505.1	--Rear, about 40 meters 173°17' from front	51° 29.7' N 2° 42.7' W	<b>Oc.G.</b> period 5s	43 13	1	White mast, orange rectangular daymark; 33.	Synchronized with front.
6064 A 5507	-Gloucester Bank, Nelson Point	51° 29.9' N 2° 42.5' W	<b>Fl.R.</b> period 3s	30 9	3	White mast; 23.	
6068 A 5508	-Broad Pill, N. jetty, head	51° 29.7' N 2° 42.0' W	<b>Q.R.</b>	13 4	1	White latticed tower.	
6072 A 5511	-Custom House, Somerset Bank	51° 28.9' N 2° 40.9' W	<b>Fl.G.</b> period 2s fl. 0.2s, ec. 1.8s	16 5	1	White column; 12.	
6076 A 5512	-Adam and Eve, Somerset Bank	51° 28.8' N 2° 40.5' W	<b>Q.(3)G.</b> period 6s	26 8	1	White column; 12.	
6080 A 5513	-Chapel Pill, Somerset Bank	51° 28.9' N 2° 40.1' W	<b>Q.(2)G.</b> period 4s	23 7	1	White column; 12.	
6084 A 5514	-Lower Horseshoe, Gloucester Bank	51° 29.3' N 2° 39.9' W	<b>Fl.R.</b> period 2s	16 5	1	White column; 12.	
6088 A 5515	-Upper Horseshoe, Gloucester Bank	51° 29.3' N 2° 39.7' W	<b>Fl.(3)R.</b> period 6s	16 5	1	White column; 12.	
6092 A 5516	-Fir Tree, Gloucester Bank	51° 29.2' N 2° 39.5' W	<b>Q.(2)R.</b> period 4s	16 5	1	White column; 12.	
6100 A 5518	-Sea Mills	51° 28.8' N 2° 39.0' W	<b>Iso.R.</b> period 5s	23 7	1	Grey latticed tower; 16.	Visible 342°-148°.
6104 A 5520	-Miles Dock, Somerset Bank, upper	51° 28.4' N 2° 39.0' W	<b>Fl.G.</b> period 2s fl. 0.2s, ec. 1.8s	23 7	1	White column; 12.	
6108 A 5519	--Lower	51° 28.5' N 2° 39.1' W	<b>Q.(3)G.</b> period 6s	16 5	1	White column; 12.	
6112 A 5522	-Leigh Woods, Somerset Bank, upper	51° 28.2' N 2° 38.7' W	<b>Fl.G.</b> period 2s fl. 0.2s, ec. 1.8s	16 5	1	White column; 12.	

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<b>ENGLAND-BRISTOL CHANNEL</b>							
6116 A 5521	--Lower	51° 28.3' N 2° 38.9' W	<b>Q.(2)G.</b> period 4s	16 5	1	White column; 12.	
6120 A 5523	-Black Rock Quarry, Gloucester Bank	51° 28.1' N 2° 38.0' W	<b>FI.R.</b> period 2s fl. 0.2s, ec. 1.8s	16 5	1	White column; 12.	
6128 A 5525	-Round Point, Gloucester Bank	51° 27.5' N 2° 37.8' W	<b>Q.(2)R.</b> period 4s	26 8	1	White column; 12.	
6132 A 5526	-Nightingale Valley, Somerset Bank	51° 27.5' N 2° 37.9' W	<b>Q.(3)G.</b> period 6s	16 5	1	White column; 12.	
6140 A 5486	Portishead, pier, head	51° 29.7' N 2° 45.3' W	<b>Iso.G.</b> period 2s	16 5	3	White column; 12.	
6144 A 5484	-Portishead Point	51° 29.7' N 2° 46.4' W	<b>Q.(3)W.</b> period 10s	30 9	16	Black metal tower, white concrete base; 30.	Visible 60°-262°. <b>Horn:</b> 1bl. ev. 20s (bl. 2s, si. 18s)
6156 A 5480	Clevedon pier, head	51° 26.6' N 2° 51.9' W	<b>2F.G.</b> (vert.)	23 7	3	Post; 3.	2 meters apart.
WESTON-SUPER-MARE:							
6164 A 5566	-Pier, head	51° 20.9' N 2° 59.2' W	<b>2F.G.</b> (vert.)	20 6		White post; 7.	1 meter apart.
6168 A 5582	Hinkley Point	51° 12.9' N 3° 08.0' W	<b>2F.G.</b> (vert.)	23 7	3	Metal column.	2 meters apart.
RIVER PARRETT:							
6172 A 5570	-Burnham	51° 14.9' N 3° 00.3' W	<b>FI.W.</b> period 7.5s fl. 0.3s, ec. 7.2s	23 7	12	White square tower, red stripe on piles.	Visible 74°-164°.
			<b>Dir.F.W.R.G.</b>	13 4	W. 12 R. 10 G. 10		G. 71°-75°, W. -85°, R. -95°.
6176 A 5572	-Seafront Range, front	51° 14.4' N 2° 59.9' W	<b>F.R.</b>	20 6	3	White square, red banded, on sea wall.	
6180 A 5572.1	--Rear 118° from front	51° 14.4' N 2° 59.9' W	<b>F.R.</b>	39 12	3	Church tower.	
6188 A 5573	-Stert Reach	51° 11.4' N 3° 02.0' W	<b>FI.W.</b> period 3s fl. 0.3s, ec. 2.7s	13 4	4	White beacon.	
6196 A 5584	Watchet Harbor, W. breakwater	51° 11.0' N 3° 19.7' W	<b>Oc.G.</b> period 3s lt. 2.5s, ec. 0.5s	30 9	9	Red hexagonal metal tower, white lantern, green cupola; 16.	
6200 A 5584.2	-E. breakwater	51° 11.0' N 3° 19.7' W	<b>2F.R.</b> (vert.)		3		Traffic signals 40 meters S at Marina Tidal gate. Unlit (temporary) 2022.
6204 A 5586	Minehead, pier, head	51° 12.8' N 3° 28.4' W	<b>FI.(2)G.</b> period 5s		4	Metal post on parapet; 7.	Visible 127°-262°.
6204.5 A 5586.4	-Outfall	51° 13.0' N 3° 28.3' W	<b>Q.G.</b>	20 6	7	STARBOARD (IALA A) Beacon, green triangle, point up daymark.	
6208 A 5590	Lynmouth Foreland	51° 14.7' N 3° 47.2' W	<b>FI.(4)W.</b> period 15s fl. 0.1s, ec. 2.2s fl. 0.1s, ec. 2.2s fl. 0.1s, ec. 2.2s fl. 0.1s, ec. 8s	220 67	18	White round tower; 50.	Visible 83°-275°. Shown 24 hours.
6212 A 5592	-River training arm	51° 13.9' N 3° 49.8' W	<b>2F.R.</b> (vert.)	20 6	5	Column.	
6216 A 5593	-Harbor Arm	51° 13.9' N 3° 49.8' W	<b>2F.G.</b> (vert.)	20 6	5	Column.	
6220 A 5594	Ilfracombe, Lantern Hill, N. side of harbor	51° 12.6' N 4° 06.8' W	<b>FI.(2)G.</b> period 5s	128 39	6	White lantern on chapel; 36.	

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>ENGLAND-BRISTOL CHANNEL</b>							
6224 A 5596	-Inner pier, head	51° 12.6' N 4° 06.7' W	<b>2F.G.</b> (vert.)	20 6	1	Post; 8.	
6228 A 5600	Bull Point	51° 11.9' N 4° 12.1' W	<b>Fl.(3)W.</b> period 10s fl. 0.2s, ec. 1.6s fl. 0.2s, ec. 1.6s fl. 0.2s, ec. 6.2s	177 54	20	White round tower; 36.	Visible 56°-260°. Bearing 260° is the approximate E shoreline limit.
			<b>F.R.</b>	157 48	12		Visible 58°-96°.
BIDEFORD:							
6232 A 5610	-Instow Landing Range, front	51° 03.6' N 4° 10.7' W	<b>Oc.W.</b> period 6s lt. 5s, ec. 1s	72 22	15	White latticed tower, white rectangular daymark; 59.	Visible 103°30'-132°. Shown 24 hours.
6236 A 5610.1	--Rear, 427 meters 118° from front	51° 03.5' N 4° 10.3' W	<b>Oc.W.</b> period 10s lt. 7.5s, ec. 2.5s	125 38	15	White tower; 30.	Visible 103°-132°30'. Shown 24 hours.
6240 A 5612	Crow Point, Taw River	51° 04.0' N 4° 11.4' W	<b>Fl.W.R.</b> period 2.5s fl. 0.5s, ec. 2s	26 8	W. 6 R. 5	White latticed tower; 22.	R. 225°-232°, W. -237°, R. - 358°, W. -15°, R. -45°.
6242 A 5615	Clovelly Harbor, pier, head	50° 59.9' N 4° 23.8' W	<b>Fl.G.</b> period 5s	16 5	5	Green metal structure.	Visible to seaward (145°).
6244 A 5616	Lundy Island.	51° 12.1' N 4° 40.6' W	<b>Fl.W.</b> period 15s fl. 0.1s, ec. 14.9s	157 48	17	White round tower; 59.	Visible 9°-285°.
6248 A 5618	-SE. point	51° 09.7' N 4° 39.4' W	<b>Fl.W.</b> period 5s fl. 0.1s, ec. 4.9s	174 53	15	White round tower; 49.	Visible 170°-73°.
6252 A 5621	Hartland Point	51° 01.3' N 4° 31.5' W	<b>Fl.(6)W.</b> period 15s	98 30	8	Lighthouse, metal post, adjacent to old lighthouse; 3.	
<b>ENGLAND-WEST COAST</b>							
PADSTOW:							
6256 A 5630	-Stepper Point	50° 34.1' N 4° 56.7' W	<b>L.FI.W.</b> period 10s fl. 2s, ec. 8s	39 12	4	Metal column; 7.	
6260 A 5634	-N. quay, head	50° 32.5' N 4° 56.1' W	<b>2F.G.</b> (vert.)	20 6	2	Metal column; 20.	F.W. shown from each inner quay head.
6264 A 5636	-S. quay, head	50° 32.4' N 4° 56.1' W	<b>2F.R.</b> (vert.)	23 7	2	Metal column; 20.	
6268 A 5631	-St. Saviours Point	50° 32.7' N 4° 56.0' W	<b>L.FI.G.</b> period 10s	3 1		Green triangle, point up daymark.	
6272 A 5638	Trevoise Head	50° 32.9' N 5° 02.2' W	<b>Fl.W.</b> period 7.5s fl. 0.1s, ec. 7.4s	203 62	18	White round tower, dwellings; 89.	R light on radio mast 180 meters ESE.
NEWQUAY:							
6276 A 5642	-N. pier, head	50° 25.0' N 5° 05.1' W	<b>2F.G.</b> (vert.)	16 5	2	Bracket on wall.	
6280 A 5644	-S. pier, head	50° 25.5' N 5° 05.1' W	<b>2F.R.</b> (vert.)	13 4	2	Round masonry tower; 7.	
6284 A 5655	Godrevy Island	50° 14.5' N 5° 24.0' W	<b>Fl.W.R.</b> (vert.) period 10s fl. 1s, ec. 9s	92 28	8	Lighthouse, metal post, adjacent to old lighthouse.	W. 22°-101°, R. -145°, W. - 272°.
HAYLE:							
6292 A 5658.1	-Old rear	50° 11.4' N 5° 26.1' W	<b>F.W.</b>	75 23	4	Pile structure, red and white lantern; 16.	

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<b>ENGLAND-WEST COAST</b>							
6294 A 5658.5	-Perch	50° 11.7' N 5° 26.1' W	<b>Oc.G.</b> period 4s lt. 3s, ec. 1s			Wooden post.	
6296 A 5665	St. Ives, inner pier, head	50° 12.8' N 5° 28.5' W	<b>2F.G.</b> (vert.)	26 8	5	White round metal tower; 33.	
6300 A 5666	-W. pier, head	50° 12.8' N 5° 28.7' W	<b>2F.R.</b> (vert.)	16 5	3	Grey column; 16.	
6304 A 5670	Pendeen	50° 09.9' N 5° 40.3' W	<b>Fl.(4)W.</b> period 15s fl. 0.1s, ec. 2.3s fl. 0.1s, ec. 2.3s fl. 0.1s, ec. 2.3s fl. 0.1s, ec. 7.7s	194 59	16	White round tower, dwellings; 56.	Visible 42°-240°.
<b>IRELAND-SOUTH COAST</b>							
6308 A 5702	Fastnet Rock	51° 23.3' N 9° 36.2' W	<b>Fl.W.</b> period 5s fl. 0.1s, ec. 4.9s	174 53	18	Gray granite tower; 177.	Fog detector light: V.Q.W.
	RACON		<b>G(- - •)</b>		18		(3 & 10 cm).
6312 A 5703	Cooper Point, Long Island, E. end	51° 30.3' N 9° 32.1' W	<b>Q.(3)W.</b> period 10s	52 16	8	White round tower.	
6316 A 5704	Schull Harbor Range, front	51° 31.6' N 9° 32.5' W	<b>Oc.W.</b> period 5s lt. 4s, ec. 1s	16 5	11	Metal post, orange triangle, point down daymark.	
6320 A 5704.1	-Rear, 91 meters 346° from front	51° 31.7' N 9° 32.4' W	<b>Oc.W.</b> period 5s lt. 4s, ec. 1s	26 8	11	Metal post, orange triangle, point down daymark.	
6324 A 5705	Baltimore, Barrack Point	51° 28.3' N 9° 23.7' W	<b>Fl.(2)W.R.</b> period 6s fl. 0.3s, ec. 1.4s fl. 0.3s, ec. 4s	131 40	W. 6 R. 3	White tower; 26.	R. 168°-294°, W. -38°.
6328 A 5707	Castle Haven, on Reen Point	51° 31.0' N 9° 10.5' W	<b>Fl.W.R.G.</b> period 10s fl. 0.5s, ec. 9.5s	30 9	W. 5 R. 3 G. 3	White tower; 13.	G. 253°-338°, W. -1°, R. - 151°. Bearing 253° is the approximate E Shoreline Limit. Bearing 151° is the approximate W Shoreline Limit.
6332 A 5708	Galley Head	51° 31.8' N 8° 57.2' W	<b>Fl.(5)W.</b> period 20s fl. 0.1s, ec. 2.4s fl. 0.1s, ec. 2.4s fl. 0.1s, ec. 2.4s fl. 0.1s, ec. 2.4s fl. 0.1s, ec. 9.9s	174 53	23	White tower; 69.	Visible 256°-65°.
6336 A 5709	Courtmacsherry Harbor, Land Point	51° 38.2' N 8° 41.0' W	<b>Fl.(2)W.R.</b> period 5s	49 15	6	White metal column; 10.	W. 315°-332°, R. -315°.
6340 A 5710	Old Head of Kinsale	51° 36.3' N 8° 32.0' W	<b>Fl.(2)W.</b> period 10s fl. 0.1s, ec. 1.6s fl. 0.1s, ec. 8.2s	236 72	20	Black tower, white banded; 98.	<b>AIS</b> (MMSI No 992501107).
6344 A 5712	Kinsale, Charles Fort, E. side of harbor	51° 41.8' N 8° 30.0' W	<b>Fl.W.R.G.</b> period 5s fl. 1s, ec. 4s	59 18	W. 9 R. 6 G. 7	Fort, lantern on sw rampart of port.	G. 348°-358°, W. -4°, R. - 168°. Shown 24 hours.
<b>CORK HARBOR AND COBH (QUEENSTOWN):</b>							
6356 A 5718	-Roche's Point	51° 47.6' N 8° 15.3' W	<b>Fl.W.R.</b> period 3s	98 30	W. 18 R. 12	White tower; 49.	R. 266°-292°, W. -16°, R. - 33°. W. UNINTENSIFIED33°- 159°. R. -206°. Bearing 266° is the approximate S Shoreline Limit. Bearing 206° is the approximate N Shoreline Limit.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>IRELAND-SOUTH COAST</b>							
6360 A 5722	-White Bay Range, front	51° 48.5' N 8° 15.2' W	<b>Oc.R.</b> period 5s lt. 4.5s, ec. 0.5s	36 11	5	White hut; 6.	
6364 A 5722.1	--Rear, 113 meters 034°35' from front	51° 48.6' N 8° 15.2' W	<b>Oc.R.</b> period 5s	69 21	5	White hut; 8.	Synchronized with front.
6368 A 5728	-Fort Davis Range, front	51° 48.8' N 8° 15.8' W	<b>Dir.F.W.R.G.</b>	82 25	17	Orange square metal framework tower; 52.	G. 352°-352°45', Al.W.G. - 353°30', W.-355°30', Al.W.R.-356°15', R.- 357°. Range 3M by day. Shown 24 hours.
6372 A 5728.1	--Rear, Dognose landing quay, 203 meters 354°30' from front	51° 48.9' N 8° 15.8' W	<b>Oc.W.</b> period 5s	112 34	10	Metal framework tower, orange square daymark; 20.	
6376 A 5732	-Corkbeg, Whitegate, oil pier, T head	51° 49.9' N 8° 15.7' W	<b>2F.G.</b> (vert.)			Dolphin; 10.	
6380 A 5736	-Spit Bank, E. elbow, off Cobh (Queenstown)	51° 50.7' N 8° 16.5' W	<b>Iso.W.R.</b> period 4s	33 10	W. 10 R. 7	White house on red piles; 33.	R. 87°-196°, W. -221°, R. - 358°.
6392 A 5748	-Haulbowline Basin, E. side of entrance	51° 50.6' N 8° 18.0' W	<b>2F.R.</b> (vert.)	26 8		Dolphin.	Maintained by Department of Defence, Eire.
6396 A 5749	--W. side	51° 50.6' N 8° 18.1' W	<b>2F.R.</b> (vert.)	26 8		Dolphin.	Maintained by Department of Defence, Eire.
6404 A 5758	-Monkstown, SE. corner of pier	51° 51.0' N 8° 19.9' W	<b>Fl.R.</b> period 2.5s fl. 0.2s, ec. 2.3s	13 4	4	Red tower.	Visible 209°-356°.
6406 A 5757	-Verolme Cork Dockyard pier, NW. corner	51° 50.9' N 8° 19.7' W	<b>2F.G.</b> (vert.)			Dolphin.	
6417 A 5763	-Cattle berth, jetty, head	51° 54.0' N 8° 24.6' W	<b>2F.G.</b> (vert.)			Mooring dolphin.	
6420 A 5764	-Tivoli, N. side of river	51° 54.1' N 8° 26.1' W	<b>Fl.G.</b> period 3s fl. 0.5s, ec. 2.5s	10 3	10	Lantern on wall; 3.	Visible 275°-95°.
6428 A 5774	Ballycotton Island	51° 49.5' N 7° 59.1' W	<b>Fl.W.R.</b> period 10s fl. 0.3s, ec. 9.7s	194 59	W. 18 R. 14	Black tower within white walls, black lantern; 49.	W. 238°-41°, R. -238°.
6432 A 5776	Youghal	51° 56.6' N 7° 50.5' W	<b>Fl.W.R.</b> period 2.5s fl. 0.5s, ec. 2s	79 24	W. 17 R. 13	White tower; 49.	W. 183°-273°, R. -295°, W. - 307°, R. -351°, W. -3°.
6436 A 5778	Mine Head	51° 59.5' N 7° 35.2' W	<b>Fl.(4)W.</b> period 30s fl. 0.3s, ec. 3.7s fl. 0.3s, ec. 3.7s fl. 0.3s, ec. 3.7s fl. 0.3s, ec. 17.7s	285 87	12	White tower, black banded; 69.	Visible 228°-52°.
DUNGARVAN BAY:							
6440 A 5782	-Ballinacourty Point	52° 04.7' N 7° 33.2' W	<b>Fl.(2)W.R.G.</b> period 10s fl. 0.5s, ec. 1s fl. 0.5s, ec. 8s	52 16	W. 10 R. 8 G. 8	White tower; 43.	G. 245°-274°, W. -302°, R. - 325°, W. -117°.
WATERFORD:							
6460 A 5798	-Hook Head	52° 07.3' N 6° 55.8' W	<b>Fl.W.</b> period 3s fl. 0.1s, ec. 2.9s	151 46	18	White tower, two black bands; 115.	
RACON							
			<b>K(- - -)</b>		10		Visible 237°-177°.(3 & 10 cm).
6464 A 5800	-Dunmore East	52° 08.9' N 6° 59.3' W	<b>Fl.W.R.</b> period 8s fl. 1.8s, ec. 6.2s	43 13	W. 16 R. 13	Grey granite tower, white lantern; 52.	W. 225°-310°, R. -4°.
6468 A 5801	--E. breakwater extension	52° 08.9' N 6° 59.3' W	<b>Fl.(3)R.</b> period 10s	20 6	4		Visible 0°-310°.
6472 A 5802	--West wharf	52° 08.9' N 6° 59.4' W	<b>Fl.(3)G.</b> period 10s	20 6	4		Visible 165°-246°.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>IRELAND-SOUTH COAST</b>							
6476 A 5806	--Duncannon, 002°	52° 13.1' N 6° 56.3' W	<b>Dir.F.W.R.G.</b>	43 13	10	White tower on fort.	G. 359°30' - 1°09', Al.W.G. - 1°39', W.-2°21', Al.W.R.- 2°51', R.-4°30'.  R. 119°-149°, W. -172°.
			<b>Oc.W.R.</b> period 4s lt. 3s, ec. 1s	43 13	W. 9 R. 7		
6484 A 5808	-Passage Point, on spit	52° 14.2' N 6° 57.7' W	<b>Fl.W.R.</b> period 5s fl. 0.5s, ec. 4.5s	13 4	5	Red piles, red square daymark; 43.	W. 114°-127°, R. -180°, W. -302°, R. -21°. Bearing 21° is the approximate SW Shoreline Limit.
6488 A 5810	-Cheek Point	52° 16.1' N 6° 59.3' W	<b>Q.W.R.</b>	20 6	5	White mast; 16.	R. 289°-7°, W. -7°.
6492 A 5812	-Kilmokea	52° 16.4' N 6° 58.9' W	<b>Fl.W.</b> period 5s fl. 0.5s, ec. 4.5s				
6496 A 5814	-Snowhill Range front	52° 16.4' N 7° 00.9' W	<b>Fl.W.R.</b> period 2.5s fl. 0.3s, ec. 2.2s	16 5	3	White mast; 19.	W. 222°-20°, R. -57°, W. -107°.
6500 A 5814.1	--Rear, Glass House, mill, 750 meters 255° from front	52° 16.3' N 7° 01.5' W	<b>Q.W.</b>	39 12	5	White latticed tower; 36.	
6504 A 5818	--S. side of E. entrance Range, front	52° 15.3' N 7° 02.2' W	<b>Oc.R.</b> period 6s	26 8	5	Black tower, white banded; 23.	
6508 A 5820	--Rear, Faithleg Demesne, 550 meters 098° from front	52° 15.3' N 7° 01.8' W	<b>Q.W.</b>	49 15	5	White mast; 20.	
6512 A 5822	--Giles Quay	52° 15.4' N 7° 04.2' W	<b>Fl.G.</b> period 3s fl. 0.3s, ec. 2.7s	30 9			Visible 255°-86°.
6516 A 5826	-Cove, S. side of river	52° 15.0' N 7° 05.1' W	<b>Fl.W.R.</b> period 5s	20 6	W. 6 R. 4	White tower; 23.	R. 111°-161°, W. -234°, R. -87°, W. -111°.
6520 A 5828	-Smelting House Point	52° 15.1' N 7° 05.2' W	<b>Q.G.</b>	26 8	3	White mast; 31.	Traffic signal lights are shown on both sides of Redmond Bridge.
6524 A 5830	-Ballycar, S. side of river	52° 15.0' N 7° 05.4' W	<b>Fl.W.</b> period 3s fl. 0.3s, ec. 2.7s	16 5	3	Red and white beacon.	
6532 A 5836	Kilmore, breakwater, head	52° 10.2' N 6° 35.1' W	<b>Q.R.G.</b>	23 7	5	White metal column; 10.	R. 269°-354°, G. -3°, R. -77°.
6536 A 5837	-Carne, pier, head	52° 11.9' N 6° 20.8' W	<b>Fl.R.</b> period 3s	20 6	4	Metal column; 10.	

<b>IRELAND-EAST COAST</b>							
6540 A 5838	Tuskar Rock	52° 12.1' N 6° 12.4' W	<b>Q.(2)W.</b> period 7.5s	108 33	18	White tower; 112.	
	RACON		<b>T(-)</b>				(3 & 10 cm).
	ROSSLARE:						
6544 A 5842	-Pier, head	52° 15.4' N 6° 20.3' W	<b>Oc.W.R.G.</b> period 5s lt. 4s, ec. 1s	49 15	W. 13 R. 10 G. 10	Red metal tower; 15.	G. 98°-188°, W. -208°, R. -246°, G. -284°, W. -286°, R. -320°, W. -98°.
6556	South Arklow Buoy	52° 40.2' N 5° 58.9' W	<b>Q.(6)W.+L.Fl.</b> period 15s			S. CARDINAL Yellow pillar, black base, topmark.	
	RACON		<b>O(- - -)</b>		10		(3 & 10 cm).
6560 A 5847	Arklow Head, Roadstone jetty	52° 46.7' N 6° 08.4' W	<b>Fl.R.</b> period 3s	30 9	4	Hut.	

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>IRELAND-EAST COAST</b>							
6564 A 5848	Arklow Harbor, S. pier, head	52° 47.6' N 6° 08.2' W	<b>Fl.W.R.</b> period 6s fl. 1s, ec. 5s	36 11	13	White column; 20.	R. 160°-223°, W. -350°, R. -33°. Bearing 160° is the approximate N Shoreline Limit. Bearing 33° is the approximate S Shoreline Limit.
6568 A 5849	-N. pier, head	52° 47.6' N 6° 08.3' W	<b>L.Fl.G.</b> period 7s fl. 2s, ec. 5s	23 7	10	White column.	Visible 170°-287°. Bearing 170° is the approximate N Shoreline Limit.
6572 A 5850	Wicklow Head	52° 58.0' N 5° 58.0' W	<b>Fl.(3)W.</b> period 15s fl. 0.1s, ec. 2.4s fl. 0.1s, ec. 2.4s fl. 0.1s, ec. 9.9s	121 37	18	White tower; 46.	<b>AIS</b> (MMSI No 992501031).
WICKLOW HARBOR:							
6576 A 5854	-E. pier, head	52° 59.0' N 6° 02.1' W	<b>Fl.W.R.</b> period 5s	36 11	6	White tower, red base, gallery and cupola; 23.	R. 136°-293°, W. -136°.
6580 A 5856	-W. pier, head	52° 59.0' N 6° 02.2' W	<b>Iso.G.</b> period 4s	16 5	6	Metal column.	
6584 A 5858	-W. Packet quay, head	52° 58.9' N 6° 02.1' W	<b>Fl.W.G.</b> period 10s	16 5	6	Metal column.	W. 256°-76°, G. -256°.
6588	Codling Buoy	53° 03.0' N 5° 40.8' W	<b>Q.(3)W.</b> period 10s	23 7	9	E. CARDINAL Black pillar, yellow banded, topmark.	
	RACON		<b>G(- - •)</b>		10		(3 & 10 cm).
DUBLIN BAY:							
6592 A 5865	-Kish Bank	53° 18.6' N 5° 55.5' W	<b>Fl.(2)W.</b> period 20s fl. 0.2s, ec. 1.9s fl. 0.2s, ec. 17.7s	95 29	18	White concrete tower, red band; 102.	Helicopter Platform.
	RACON		<b>T(-)</b>		15		(3 & 10 cm).
6594	-Dublin Bay Buoy	53° 19.9' N 6° 04.6' W	<b>Mo.(A)W.</b> period 10s			SAFE WATER Red and white spherical structure.	
	RACON		<b>M(- -)</b>		5		(3 & 10 cm).
6596 A 5868	-Muglins	53° 16.5' N 6° 04.6' W	<b>Fl.R.</b> period 5s fl. 0.7s, ec. 4.3s	46 14	11	White conical tower, red banded; 30.	
6600 A 5872	-E. pier, head	53° 18.1' N 6° 07.6' W	<b>Fl.(2)R.</b> period 8s fl. 1s, ec. 1s fl. 1s, ec. 5s	52 16	17	Hard surface, granite tower, red lantern; 39.	Fog detector light: V.Q.W. 7M. Shown in reduced visibility. Intensified 142°- 332°. Unintensified -142°. Synchronized with A 5874.
6604 A 5874	-W. pier, head	53° 18.2' N 6° 07.9' W	<b>Fl.(2)G.</b> period 8s fl. 1s, ec. 1s fl. 1s, ec. 5s	36 11	7	Granite tower, green lantern; 29.	Synchronized with E. pier, head.
6608 A 5876	-Carlisle pier, head	53° 17.7' N 6° 07.8' W	<b>Fl.R.</b> period 3s fl. 0.3s, ec. 2.7s	10 3	2	Grey post.	
6612 A 5877	-St. Michael's Pier, NE. pile	53° 17.9' N 6° 07.8' W	<b>Fl.G.(vert.)</b> period 3s	49 15	2	Metal pole on black metal pile.	1 meter apart. Fl.W. traffic signals 170 meters SW and 160 meters SSW.
6616 A 5878	-Traders wharf, head	53° 17.9' N 6° 08.5' W	<b>2F.R.(vert.)</b>	36 11	2	Metal post; 30.	2 meters apart.
6620 A 5882	-Poolbeg	53° 20.5' N 6° 09.1' W	<b>Fl.R.</b> period 4s fl. 1s, ec. 3s	66 20	10	Red round tower; 66.	Synchronized with A5884.
6622 A 5889	-Coal Quay, E. head	53° 20.5' N 6° 11.8' W	<b>2F.R.(vert.)</b>	16 5	2	Dolphin.	

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>IRELAND-EAST COAST</b>							
6625 A 5887.9	Cape Ferry Quay, SE. corner	53° 20.7' N 6° 11.6' W	<b>2F.G.</b> (vert.)	23 7	2	Column.	
6626 A 5886.4	-AVIATION LIGHT	53° 20.4' N 6° 11.4' W	<b>2FI.W.</b> (vert.)	659 201 269 82	12	Chimney; 689.	Neon. F.R. marks chimney 80 meters E. Obstruction.
			<b>F.W.</b>	538 164 407 124 135 41			Neon.
6628 A 5884	--Bull	53° 20.7' N 6° 09.0' W	<b>FI.G.</b> period 4s fl. 1s, ec. 3s	49 15	10	Green round tower; 49.	Synchronized with A 5882.
6632 A 5886	--North Bank	53° 20.7' N 6° 10.6' W	<b>Oc.G.</b> period 8s lt. 7s, ec. 1s	33 10	16	Green square tower on concrete piles; 36.	
6648 A 5894	--N. wall quay, head	53° 20.7' N 6° 13.0' W	<b>FI.W.</b> period 2s fl. 0.2s, ec. 1.8s	39 12	10	Black round tower, white banded; 39.	Traffic signals 750 meters W.
6652 A 5898	-Baily	53° 21.7' N 6° 03.2' W	<b>FI.W.</b> period 15s fl. 0.7s, ec. 14.3s	135 41	18	Granite tower; 43.	<b>AIS</b> (MMSI No 992501010). Fog detector light: V.Q.W.
6656 A 5900	-Howth	53° 23.6' N 6° 04.0' W	<b>FI.(2)W.R.</b> period 7.5s fl. 0.7s, ec. 1.3s fl. 0.7s, ec. 4.8s	43 13	W. 12 R. 9	White concrete structure; 33.	W. 256°-295°, R. -256°. Flood light.
6657 A 5900.3	--W. pier, head	53° 23.5' N 6° 04.1' W	<b>FI.G.</b> period 3s	23 7	3	Green mast, square concrete base; 16.	
6658 A 5900.5	--Trawler pier, head	53° 23.5' N 6° 04.0' W	<b>2F.R.</b>	23 7	3	Red mast, square concrete base; 16.	
6662 A 5903.6	Burren Rocks	53° 29.4' N 6° 02.5' W	<b>FI.G.</b> period 5s fl. 0.3s, ec. 4.7s	23 7	5	STARBOARD (IALAA) Green metal post, green triangle, point up daymark.	
6664 A 5904	Rockabill	53° 35.8' N 5° 50.0' W	<b>FI.W.R.</b> period 12s fl. 0.2s, ec. 11.8s	148 45	W. 17 R. 13	White tower, black banded; 105.	W. 178°-329°, R. -178°.
6668 A 5906	Skerries Bay, pier, head	53° 35.1' N 6° 06.5' W	<b>Oc.R.</b> period 6s	23 7	7	White column; 25.	Visible 103°-154°.
6672 A 5908	Balbriggan Island	53° 36.8' N 6° 10.9' W	<b>FI.(3)W.R.G.</b> period 10s fl. 1s, ec. 1s fl. 1s, ec. 1s fl. 1s, ec. 5s	39 12	W. 13 R. 10 G. 10	White tower; 52.	G. 159°-193°, W. -288°, R. - 305°.
6673 A 5909	Platin AVIATION LIGHT	53° 41.0' N 6° 23.4' W	<b>Q.R.</b>	489 149	11	Chimney; 351.	Obstruction.
			<b>F.R.</b>	381 116			Aero light.
			<b>F.R.</b>	266 81			Aero light.
DROGHEDA HARBOR ENTRANCE:							
6682 A 5910.5	-Port approach	53° 43.3' N 6° 14.7' W	<b>Dir.F.W.R.G.</b>	33 10	W. 19 R. 15 G. 15	Metal beacon.	G. 268°-269°, Al.W.G.- 269°30', W.-270°30', Al.W.R.-271°, R.-272°. Shown 24 hours. Range 3/2M by day.
6692 A 5912	--Aleria, N. side of entrance to River Boyne	53° 43.3' N 6° 14.2' W	<b>Q.G.</b>	59 18	4	Green masonry beacon.	

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>IRELAND AND NORTHERN IRELAND-EAST COAST</b>							
DUNDALK BAY:							
6696 A 5920	-Dundalk pile	53° 58.5' N 6° 17.7' W	<b>FI.W.</b> period 15s fl. 0.4s, ec. 14.6s	33 10	10	White house, green piles; 33.	Shown in reduced visibility.
6700 A 5920.4	--No 4	53° 58.8' N 6° 18.3' W	<b>FI.R.</b> period 3s	13 4	2	PORT (IALAA) Red metal post, red square daymark; 30.	
6702	--Hellyhunter Buoy	54° 00.3' N 6° 02.0' W	<b>Q.(6) + L.FI.W.</b> period 15s			S. CARDINAL Yellow pillar, black base, topmark.	
	RACON		<b>K(- -)</b>		5		(3 & 10 cm).
CARLINGFORD LOUGH:							
6704 A 5928	-Haulbowline	54° 01.2' N 6° 04.6' W	<b>FI.(3)W.</b> period 10s fl. 0.5s, ec. 1s fl. 0.5s, ec. 1s fl. 0.5s, ec. 6.5s	105 32	10	Grey granite tower; 112.	<b>AIS</b> (MMSI No 992501235).
6708 A 5932	-Range, front	54° 01.8' N 6° 05.4' W	<b>Oc.W.</b> period 3s lt. 2.3s, ec. 0.7s	23 7	11	Latticed tower, luminous orange triangle, point up daymark, white lantern; 26.	Visible 296°-324°.
6712 A 5934	--Rear, 457 meters 310°26' from front	54° 02.0' N 6° 05.7' W	<b>Oc.W.</b> period 3s lt. 2.3s, ec. 0.7s	39 12	11	Latticed tower, luminous orange triangle, point down daymark, white lantern; 46.	Visible 296°-324°. Synchronized with front.
6714 A 5938	-Greenore pier, head	54° 02.1' N 6° 08.0' W	<b>FI.R.</b> period 7.5s	33 10	5	Metal post; 23.	LED.
6720 A 5944	-Carlingford, W. pier, head	54° 02.6' N 6° 11.0' W	<b>FI.G.</b> period 3s	16 5	3	Green column; 7.	
6724 A 5946	-Newry River Range, front	54° 06.4' N 6° 16.5' W	<b>Iso.W.</b> period 4s	16 5	2	Masonry column; 8.	
6728 A 5946.1	--Rear, 274 meters 310°25' from front	54° 06.5' N 6° 16.6' W	<b>Iso.W.</b> period 4s	49 15	2	Masonry column; 8.	
6732 A 5948	-Warren Point, breakwater, head	54° 05.8' N 6° 15.2' W	<b>FI.G.</b> period 3s	20 6	3		
6736 A 5949	--Deep water quay	54° 05.9' N 6° 15.5' W	<b>FI.G.</b> period 5s fl. 0.5s, ec. 4.5s	16 5	3	Green post; 7.	
6740 A 5952	-Kilkeel Harbor, pier, head	54° 03.5' N 5° 59.3' W	<b>FI.W.R.</b> period 2s fl. 0.5s, ec. 1.5s	26 8	W. 11 R. 9	Black metal post; 10.	R. 296°-313°, W. -17°. Storm Signal.
6752 A 5953	Annalong, E. breakwater, head	54° 06.6' N 5° 53.8' W	<b>Oc.W.R.G.</b> (vert.) period 5s lt. 4s, ec. 1s	26 8	9	Red latticed tower, white lantern; 20.	G. 204°-249°, W. -309°, R. - 24°. 3 F.R. (vert.) shown during port closure. 1.5 meters apart.
6756 A 5958	St. John's Point	54° 13.6' N 5° 39.6' W	<b>Q.(2)W.</b> period 7.5s	121 37	25	Black round tower, yellow bands; 131.	Fog detector light: V.Q.W., visible on bearing 270°.
			<b>FI.W.R.</b> period 3s fl. 1s, ec. 2s	46 14	W. 15 R. 11		W. 64°-78°, R. -156°. Bearing 156° is the approximate N Shoreline Limit.
6760 A 5962	Ardglass, inner pier, head	54° 15.8' N 5° 36.4' W	<b>Iso.W.R.G.</b> period 4s	33 10	W. 10 R. 8 G. 8	Tower; 33.	G. 232°-308°, W. -314°, R. - 10°. Bearing 232° is the approximate E Shoreline Limit. Bearing 10° is the approximate W Shoreline Limit.
6764 A 5962.4	-Outer pier, head	54° 15.8' N 5° 36.0' W	<b>FI.R.</b> period 3s	33 10	5	Red metal post; 13.	
6768 A 5963.3	Angus Rock	54° 19.9' N 5° 31.5' W	<b>FI.R.</b> period 5s fl. 1s, ec. 4s	49 15	5	White tower, red top; 43.	

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>IRELAND AND NORTHERN IRELAND-EAST COAST</b>							
6776 A 5970	Portavogie Harbor, S. pier	54° 27.5' N 5° 26.1' W	<b>Iso.W.R.G.</b> period 5s	20 6	5	Square masonry tower; 16.	G. 148°-262°, W. -272°, R. -350°.
6780	Skulmartin Buoy	54° 32.0' N 5° 25.0' W	<b>L.FI.W.</b> period 10s			SAFE WATER White sphere, red stripes.	Whistle. <b>Radar reflector.</b>
6784 A 5973	Ballywalter, breakwater, head	54° 32.7' N 5° 28.9' W	<b>FI.W.R.G.</b> period 3s	13 4	9	Metal column; 10.	G. 240°-267°, W. -277°, R. -314°. Difficult to distinguish.
6788 A 5974	Donaghadee Harbor	54° 38.7' N 5° 31.9' W	<b>Iso.W.R.</b> period 4s	56 17	<b>W. 16</b> R. 10	White tower; 52.	W. 118°-326°, R. -357°. Bearing 118° is the approximate N Shoreline Limit. Bearing 357° is the approximate S Shoreline Limit.
6792 A 5976	Mew Island	54° 41.9' N 5° 30.8' W	<b>F.FI.(4)W.</b> period 30s fl. 0.7s, ec. 4.3s fl. 0.7s, ec. 4.3s fl. 0.7s, ec. 4.3s fl. 0.7s, ec. 14.3s	115 35	<b>18</b>	Black tower, white band; 121.	
	RACON		<b>O(---)</b>		14		(3 & 10 cm).
6794 A 5980	Bangor Harbor, N. pier, head	54° 40.0' N 5° 40.3' W	<b>Iso.R.</b> period 12s	30 9	9	Red concrete column; 36.	
6796 A 5988	Kilroot Point, jetty, head	54° 43.5' N 5° 44.6' W	<b>Oc.G.</b> period 10s lt. 8s, ec. 2s	20 6	9	Green mast; 7.	
6800 A 5987	Kilroot Power Station Intake basin	54° 43.2' N 5° 45.9' W	<b>Oc.G.</b> period 4s				Q.R. and 4 F.R. (vert) on chimney 500 meters N.
6801 A 5987.5	-Unloading jetty	54° 43.3' N 5° 45.3' W	<b>2F.G.(vert.)</b>	20 6	2	Mast; 16.	2 meters apart.
6804 A 5986	Cloghan, jetty, N. head	54° 44.3' N 5° 42.3' W	<b>FI.G.</b> period 3s fl. 1s, ec. 2s		2	Green post.	<b>Horn:</b> 1bl. ev. 15s
6808 A 5986.4	-S. head	54° 44.1' N 5° 42.5' W	<b>FI.G.</b> period 3s fl. 1s, ec. 2s		2	Green post.	
CARRICKFERGUS HARBOR:							
6812 A 5992	-E. pier, head	54° 42.6' N 5° 48.4' W	<b>FI.G.</b> period 7.5s fl. 0.7s, ec. 6.8s	16 5	4	Green metal column; 12.	
6816 A 5993	-W. pier, head	54° 42.6' N 5° 48.4' W	<b>FI.R.</b> period 7.5s fl. 0.7s, ec. 6.8s	16 5	4	Red metal column; 12.	
BELFAST-VICTORIA CHANNEL:							
6819 A 5999	-No 8	54° 39.8' N 5° 50.4' W	<b>Q.(2)R.</b> period 6s fl. 0.4s, ec. 1s fl. 0.4s, ec. 4.2s		7	Red beacon.	
6820 A 6000	-No 9	54° 39.6' N 5° 50.9' W	<b>Q.(3)G.</b> period 6s			Green beacon.	
6822 A 6001	-No 10	54° 39.4' N 5° 50.9' W	<b>Q.(2)R.</b> period 6s fl. 0.4s, ec. 1s fl. 0.4s, ec. 4.2s			Red beacon.	
6824 A 6002	-No 11	54° 39.3' N 5° 51.3' W	<b>FI.G.</b> period 3s			Green beacon.	
6828 A 6003	-No 12	54° 39.0' N 5° 51.4' W	<b>Q.(4)R.</b> period 6s			Red beacon.	
6832 A 6004	-No 13	54° 38.9' N 5° 51.8' W	<b>Q.(3)G.</b> period 6s			Green beacon.	
6836 A 6005	-No 14	54° 38.6' N 5° 51.9' W	<b>Q.(2)R.</b> period 6s			Red beacon.	

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>IRELAND AND NORTHERN IRELAND-EAST COAST</b>							
6840 A 6006	-No 15	54° 38.4' N 5° 52.5' W	<b>FI.G.</b> period 3s				Green beacon.
6844 A 6007	-No 16	54° 38.2' N 5° 52.4' W	<b>Q.(2)R.</b> period 6s fl. 0.4s, ec. 1s fl. 0.4s, ec. 4.2s		8		Red beacon.
6856 A 6011	-No 19	54° 37.6' N 5° 53.5' W	<b>Q.G.</b>				Green beacon.
6872 A 6014.7	-Dolphin	54° 37.7' N 5° 53.4' W	<b>2F.G.</b> (vert.)				
6874 A 6015	-Daisy Range, front	54° 37.4' N 5° 53.2' W	<b>Q.(2)R.</b> period 6s fl. 0.5s, ec. 0s fl. 0.5s, ec. 4.5s		3		PORT (IALAA) Red beacon, red square daymark.
6876 A 6015.1	--Rear, 120 meters 122° from front	54° 37.4' N 5° 53.1' W	<b>Q.(2)R.</b> period 6s		3		Red beacon, red triangle, point up daymark.
6888 A 6017	--M2	54° 37.4' N 5° 53.2' W	<b>Q.(4)R.</b> period 6s				PORT (IALAA) Red beacon, red square daymark.
6892 A 6019	--M1	54° 37.3' N 5° 53.3' W	<b>Q.G.</b>	7 2	2		STARBOARD (IALAA) Piles, green triangle, point up daymark.
6896 A 6019.3	--M3	54° 37.1' N 5° 53.4' W	<b>FI.G.</b> period 4s fl. 1.5s, ec. 2.5s	7 2	2		STARBOARD (IALAA) Piles, green triangle, point up daymark.
6900 A 6019.6	--E. side	54° 36.8' N 5° 53.5' W	<b>Q.(2)R.</b> period 6s	7 2	2		Piles.
6904 A 6019.8	-East Twin Island, W. side	54° 37.4' N 5° 53.6' W	<b>Q.(6)R.</b> period 9s				PORT (IALAA) Red beacon, red square daymark.
6908 A 6020	-West Twin Island, off NE. point	54° 37.4' N 5° 53.7' W	<b>FI.G.</b> period 4s fl. 1.5s, ec. 2.5s	33 10	2		STARBOARD (IALAA) Metal column on piles, green triangle, point up daymark.
6916 A 6020.6	-Thompson Dock, W. side of entrance	54° 37.0' N 5° 54.0' W	<b>FI.R.</b> period 1.5s fl. 0.4s, ec. 1.1s	26 8	1		Metal framework tower; 50.
6920 A 6021	-River Lagan, Barnett Dock entrance, off Ballast Quay	54° 36.8' N 5° 54.6' W	<b>2F.R.</b> (vert.)				Dolphin.
6928 A 6021.6	--Queens wharf, N. head	54° 36.7' N 5° 54.6' W	<b>FI.R.</b> period 5s fl. 0.5s, ec. 4.5s	23 7	2		PORT (IALAA) Piles, red square daymark; 16.
6932 A 6021.8	---S. head	54° 36.4' N 5° 54.9' W	<b>Q.R.</b>	23 7	2		PORT (IALAA) Piles, red square daymark.
6936 A 6022	--H1	54° 37.6' N 5° 53.6' W	<b>FI.G.</b> period 2.5s fl. 0.5s, ec. 2s				STARBOARD (IALAA) Piles, green triangle, point up daymark.
6948 A 6022.2	--H2	54° 37.4' N 5° 53.9' W	<b>Oc.R.</b> period 4s lt. 3.5s, ec. 0.5s				Beacon, square daymark.
6952 A 6022.4	--H3	54° 37.4' N 5° 53.9' W	<b>Oc.G.</b> period 4s lt. 3.5s, ec. 0.5s				Green beacon, triangle, point up daymark.
6956 A 6023	--H4	54° 37.2' N 5° 54.2' W	<b>FI.R.</b> period 4s fl. 1.5s, ec. 2.5s				Beacon, square daymark.
6960 A 6022.6	Container terminal	54° 37.3' N 5° 54.2' W	<b>FI.(3)G.</b> period 6s	33 10			
6964 A 6024	--H5	54° 37.2' N 5° 54.4' W	<b>FI.G.</b> period 2s fl. 0.5s, ec. 1.5s				Green beacon, triangle, point up daymark.
6968 A 6025	--Power Station	54° 37.2' N 5° 54.4' W	<b>Q.R.</b>				Piles.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>IRELAND AND NORTHERN IRELAND-EAST COAST</b>							
6972 A 6028	Black Head	54° 46.0' N 5° 41.3' W	<b>FI.W.</b> period 3s fl. 0.2s, ec. 2.8s	148 45	27	White octagonal tower; 52.	<b>AIS</b> (MMSI No 992351002).
LOUGH LARNE:							
6984 A 6031	-Sandy Point	54° 51.3' N 5° 47.9' W	<b>Iso.W.R.</b> period 5s	75 23	<b>W. 16</b> R. 12	Grey tower; 92.	W. 232°6' -239°42'; R. -0°. Bearing 0° is the approximate S Shoreline Limit.
6988 A 6033.4	-N. beacon No 2	54° 51.1' N 5° 47.5' W	<b>FI.R.</b> period 3s fl. 0.6s, ec. 2.4s	13 4	4	Red beacon.	
6992 A 6035	-Beacon No 4	54° 50.8' N 5° 47.5' W	<b>FI.(2)R.</b> period 6s	13 4	4	Red beacon.	
6996 A 6034	-NE. corner of Continental Pier, head	54° 51.0' N 5° 47.6' W	<b>2F.G.</b> (vert.)	23 7	1	Dolphin.	Visible 167°-240°. Occasional 2 meters apart.
7000 A 6033	-Range, front	54° 49.6' N 5° 47.8' W	<b>FI.W.</b> period 2.5s fl. 1s, ec. 1.5s	20 6	12	Red pile structure, white diamond daymark, red stripe.	Visible 179°-189°.
7004 A 6033.1	--Rear, 610 meters 184° from front	54° 49.3' N 5° 47.8' W	<b>Oc.W.</b> period 5s	46 14	12	Round aluminum tower, white diamond daymark, red stripe.	Visible 179°-189°.
7008 A 6037	-Ballylumford, jetty, NW. head	54° 50.5' N 5° 47.2' W	<b>2F.R.</b> (vert.)	26 8	2	Post on dolphin; 13.	
7012 A 6037.2	--SE. side	54° 50.5' N 5° 47.1' W	<b>2F.R.</b> (vert.)	26 8		Post on dolphin; 13.	
7016 A 6042	East Maiden	54° 55.7' N 5° 43.7' W	<b>FI.(3)W.</b> period 15s fl. 0.1s, ec. 2.5s fl. 0.1s, ec. 2.5s fl. 0.1s, ec. 9.7s	105 32	18	White tower, black banded; 75.	<b>AIS</b> (MMSI No 992351110). Hours of darkness only.
			<b>FI.R.</b> period 5s fl. 0.7s, ec. 4.3s	49 15	8		<b>AIS</b> (MMSI No 992351110). Visible 142°- 182° over Russel and Highland Rocks. Shown 24 hours.
	RACON		<b>M(- -)</b>		11		<b>AIS</b> (MMSI No 992351110).(3 & 10 cm).
7017 A 6043	S. Carnlough Harbor, N. pier	54° 59.6' N 5° 59.3' W	<b>FI.G.</b> period 3s fl. 0.5s, ec. 2.5s	13 4	5	White concrete column, black banded; 20.	
7018 A 6043.2	-S. pier	54° 59.6' N 5° 59.3' W	<b>FI.R.</b> period 3s fl. 0.5s, ec. 2.5s	20 6	5	White concrete column, black banded; 13.	
7020 A 6044	Red Bay, pier, head	55° 03.9' N 6° 03.1' W	<b>FI.W.</b> period 3s fl. 0.5s, ec. 2.5s	33 10	5	Metal post; 10.	
RATHLIN ISLAND:							
7028 A 6060	-Rue Point, S. extremity	55° 15.5' N 6° 11.5' W	<b>FI.(2)W.</b> period 5s fl. 0.5s, ec. 1s fl. 0.5s, ec. 3s	52 16	14	White octagonal concrete tower, black banded; 36.	
7032 A 6062	-Rathlin East	55° 18.1' N 6° 10.3' W	<b>FI.(4)W.</b> period 20s fl. 0.2s, ec. 2.3s fl. 0.2s, ec. 2.3s fl. 0.2s, ec. 2.3s fl. 0.2s, ec. 12.3s	243 74	26	White tower, black band; 89.	W. 110°-6°, W. 36°-58°.
	RACON		<b>G(- - +)</b>		15		Visible 89°-3°.(3 & 10 cm).
7036 A 6064	-Rathlin West	55° 18.0' N 6° 16.8' W	<b>FI.R.</b> period 5s fl. 0.4s, ec. 4.6s	203 62	18	White tower, lantern at base; 59.	Visible 15°-225°. Fog detector light: V.Q.W., visible on bearing 119°.
7038 A 6065	-Manor House pier	55° 17.6' N 6° 11.7' W	<b>Oc.W.R.G.</b> period 4s lt. 3s, ec. 1s		5		G. 20°-23°, W. -26°, R. -29°.

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<b>IRELAND AND NORTHERN IRELAND-EAST COAST</b>							
7039	Skerries Buoy	55° 13.9' N 6° 36.9' W	<b>FI.R.</b> period 5s fl. 0.3s, ec. 4.7s			PORT (IALAA) Red can structure.	<b>AIS</b> (MMSI No 992351096).
7040 A 6071	Portrush, N. pier, head	55° 12.3' N 6° 39.6' W	<b>FI.R.</b> period 3s	20 6	3	Red metal mast, concrete base.	Visible 220°-156°.
7044 A 6072	-S. pier, head	55° 12.3' N 6° 39.5' W	<b>FI.G.</b> period 3s	20 6	3	Green metal mast, concrete base.	Visible 289°-120°.
7056 A 6073	Portstewart Point	55° 11.3' N 6° 43.3' W	<b>Oc.R.</b> period 10s lt. 7s, ec. 3s	69 21	5	Red square concrete building; 10.	Visible 40°-220°.
7060 A 6076	River Bann, entrance Ballaghran Point	55° 10.3' N 6° 46.3' W	<b>FI.R.</b> period 5s	20 6	2	White pyramidal concrete tower; 14.	
7062 A 6076.5	Ballyaghran	55° 09.9' N 6° 45.9' W	<b>FI.(2)R.</b> period 5s			Red beacon, square daymark.	
7064 A 6074	Coleraine, front	55° 10.0' N 6° 46.2' W	<b>Oc.W.</b> period 5s	20 6	2	White pyramidal metal structure; 17.	The river is marked by FI.G. on starboard side, and FI.R. on port side.
7068 A 6074.1	-Rear, 245 meters 165° from front	55° 09.9' N 6° 46.2' W	<b>Oc.W.</b> period 5s	46 14	2	White square concrete tower.	
7072 A 6075	-W. mole	55° 10.3' N 6° 46.4' W	<b>FI.G.</b> period 5s	13 4	2	STARBOARD (IALAA) Green metal mast, green triangle, point up daymark; 10.	Visible 170°-0°.
<b>NORTHERN IRELAND-EAST AND NORTH COASTS</b>							
7076 A 6084	Inishowen Head	55° 13.6' N 6° 55.7' W	<b>FI.(2)W.R.G.</b> period 10s fl. 1s, ec. 2s fl. 1s, ec. 6s	92 28	<b>W. 18</b> R. 14 G. 14	White tower, black banded; 75.	G. 197°-211°, W. -249°, R. -0°.
7080 A 6088	-Warren Point	55° 12.6' N 6° 57.1' W	<b>FI.W.</b> period 1.5s fl. 0.2s, ec. 1.3s	36 11	4	White round tower, green abutment; 26.	Visible 232°-61°.
7084 A 6092	-Magilligan Point	55° 11.7' N 6° 58.1' W	<b>Q.R.</b>	23 7	4	Red pile beacon.	
7088 A 6095	-McKinney's Bank	55° 11.0' N 7° 00.5' W	<b>FI.R.</b> period 5s	13 4	3	Red pile structure.	
7092 A 6096	-Moville, 549 meters from quay	55° 11.0' N 7° 02.1' W	<b>FI.W.R.</b> period 2.5s	36 11	4	White house on green piles; 44.	W. 240°-64°, R. -240°.
7096 A 6098	-Glenburnie	55° 10.4' N 7° 01.6' W	<b>Oc.R.</b> period 6s	10 3	3	Red pile beacon.	
7100 A 61	-Salt pans, N. Middle Bank, NE. head	55° 10.5' N 7° 03.1' W	<b>FI.R.</b> period 2.5s	13 4	3	Red pile beacon.	
7104 A 6101	-Clare, W. side of N. Middle Bank	55° 09.9' N 7° 05.0' W	<b>Q.R.</b>	13 4	3	Red pile beacon.	
7108 A 6104	-Redcastle, outer edge of Ridge Shoal	55° 08.8' N 7° 07.6' W	<b>Oc.G.</b> period 5s	13 4	5	STARBOARD (IALAA) Green piles, green triangle, point up daymark.	
<b>NORTHERN IRELAND AND IRELAND-NORTH COAST</b>							
LOUGH FOYLE:							
7112 A 6105	-Vance	55° 08.6' N 7° 07.9' W	<b>Oc.R.</b> period 5s	13 4	3	PORT (IALAA) Red piles, red square daymark.	
7116 A 6106	-Whitecastle, SE. side of channel	55° 08.0' N 7° 09.5' W	<b>Q.R.</b>	13 4	3	PORT (IALAA) Red piles, red square daymark.	

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<b>NORTHERN IRELAND AND IRELAND-NORTH COAST</b>							
7120 A 6107	-Cabry, NW. side of channel	55° 07.1' N 7° 11.3' W	<b>FI.G.</b> period 2.5s fl. 0.2s, ec. 2.3s	13 4	3	STARBOARD (IALAA) Green piles, green triangle, point up daymark.	
7124 A 6108	-Quigleys Point, off point on SE. side of channel	55° 07.0' N 7° 11.2' W	<b>FI.R.</b> period 2s fl. 0.2s, ec. 1.8s	13 4	3	PORT (IALAA) Red piles, red square daymark.	Q.W. 16M and R. obstruction lights 4.6 miles SSE.
7128 A 6110	-Greenbank, off Aught Point, W. side of channel	55° 06.5' N 7° 12.1' W	<b>Q.G.</b>	13 4	3	STARBOARD (IALAA) Green piles, green triangle, point up daymark.	
7132 A 6112	-Lepers Point, off Aught Point, E. side of channel	55° 06.4' N 7° 12.0' W	<b>Q.R.</b>	13 4	3	PORT (IALAA) Red piles, red square daymark.	
7140 A 6114	-Ture, on spit, SE. side of channel	55° 05.8' N 7° 12.8' W	<b>FI.R.</b> period 4s	13 4	3	PORT (IALAA) Red piles, red square daymark.	
7144 A 6116	-Aught	55° 05.8' N 7° 12.9' W	<b>FI.G.</b> period 5s	13 4	3	Green beacon, triangle, point up daymark.	
7148 A 6117	-Drumskellan, off Ture Point, W. side of channel	55° 05.6' N 7° 13.1' W	<b>FI.G.</b> period 2.5s	13 4	3	STARBOARD (IALAA) Green piles, green triangle, point up daymark.	
7152 A 6124	-Kilderry, W. side of channel	55° 04.1' N 7° 14.0' W	<b>FI.G.</b> period 2s	13 4	3	STARBOARD (IALAA) Green piles, green triangle, point up daymark.	
7156 A 6120	-Crummin Point, off point, W. side of channel	55° 04.7' N 7° 13.6' W	<b>Q.G.</b>	13 4	3	STARBOARD (IALAA) Green piles, green triangle, point up daymark.	
7160 A 6122	-Willsboro, E. side of channel	55° 04.6' N 7° 13.5' W	<b>Oc.R.</b> period 6s	13 4	3	PORT (IALAA) Red piles, red square daymark.	
7164 A 6130	-Faughan, SE. side of channel	55° 03.1' N 7° 14.5' W	<b>V.Q.R.</b> period 4s	13 4	3	PORT (IALAA) Red piles, red square daymark.	
7168 A 6127	-Muff, W. side of channel	55° 03.6' N 7° 14.3' W	<b>FI.G.</b> period 2s	13 4	3	STARBOARD (IALAA) Green piles, green triangle, point up daymark.	
			<b>Dir.Iso.W.R.G.</b> period 4s		9		G. 199°30'- 201°30', Al.W.G.-201°45', W.- 202°15', Al.W.R.-202° 30', R.-204°30'.
7172 A 6128	--Coneyburrow	55° 03.3' N 7° 14.5' W	<b>Q.G.</b>	13 4	3	STARBOARD (IALAA) Green piles, green triangle, point up daymark.	
7176 A 6131	-Culmore, on point	55° 02.8' N 7° 15.2' W	<b>Q.G.</b>	13 4	3	STARBOARD (IALAA) Green piles, green triangle, point up daymark.	
7180 A 6134.5	-Lisahally Quay, NE. corner	55° 02.6' N 7° 15.7' W	<b>2F.R.</b> (vert.)	16 5	3		2 meters apart.
7188 A 6130.2	-Coolkeeragh wharf, NE. head	55° 03.0' N 7° 14.6' W	<b>Q.(2)R.</b> period 2s				
7192 A 6130.3	--SW. head	55° 02.9' N 7° 14.7' W	<b>FI.R.</b> period 5s				
7193 A 6130.5	--NE. head	55° 02.9' N 7° 14.7' W	<b>2F.R.</b> (vert.)				
7193.2 A 6130.6	--SW. head	55° 02.8' N 7° 15.0' W	<b>FI.R.</b> period 2s				
7193.4 A 6130.8	-Jetty	55° 02.7' N 7° 15.0' W	<b>FI.R.</b> period 2s				
7196 A 6136	-Ballynagard, W. side of channel	55° 02.3' N 7° 16.4' W	<b>FI.W.</b> period 3s	20 6	3	Green round tower.	
7200 A 6138	-Otter Bank, E. side of channel	55° 02.0' N 7° 16.7' W	<b>FI.R.</b> period 4s	20 6	3	Red round tower.	

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<b>NORTHERN IRELAND AND IRELAND-NORTH COAST</b>							
7204 A 6142	-Mountjoy, E. side of channel	55° 01.2' N 7° 17.5' W	<b>Q.R.</b>	16 5	3	White beacon, red base.	
7208 A 6140	-Brook Hall, W. side of channel	55° 01.7' N 7° 17.1' W	<b>Q.G.</b>	16 5	3	White beacon, green base.	
7216 A 6152	-Rosse's Bay Channel Range, front	55° 00.7' N 7° 17.5' W	<b>Oc.W.</b> period 10s	13 4	3	Beacon, white triangle, point up daymark.	
			<b>Oc.R.</b> period 5s	16 5	3		R. 127°-190°.
7220 A 6152.1	--Rear, 085° from front	55° 00.7' N 7° 16.9' W	<b>Oc.W.</b> period 10s	23 7	3	Beacon, white triangle, point down daymark.	Synchronized with front.
7224 A 6158	-Clooney	55° 00.7' N 7° 18.1' W	<b>FI.R.</b> period 4s	13 4	3	PORT (IALAA) Red piles, red square daymark.	
7228 A 6162	-St. Columb's, on Clooney Bank	55° 00.6' N 7° 18.6' W	<b>FI.R.</b> period 4s	13 4	3	PORT (IALAA) Red piles, red square daymark.	
7232 A 6163	-Aberfoyle, off Columbs Point	55° 00.3' N 7° 19.0' W	<b>FI.R.</b> period 2s	16 5	3	White structure, red piles.	
7236 A 6164	Inishtrahull	55° 25.8' N 7° 14.6' W	<b>FI.(3)W.</b> period 15s fl. 0.2s, ec. 2.3s fl. 0.2s, ec. 2.3s fl. 0.2s, ec. 9.8s	194 59	18	White tower; 75.	Obscured 256°-261° within 3M.
	RACON		<b>T(-)</b>		24		Visible 60°-310°. (3 & 10 cm).
LOUGH SWILLY:							
7240 A 6168	-Fanad Head	55° 16.6' N 7° 37.9' W	<b>FI.(5)W.R.</b> period 20s fl. 1s, ec. 1.5s fl. 1s, ec. 1.5s fl. 1s, ec. 1.5s fl. 1s, ec. 1.5s fl. 1s, ec. 9s	128 39	<b>W. 18</b> R. 14	White tower; 72.	R. 100°-110°, W. -313°, R. -345°, W. -100°.
7244 A 6172	-Dunree Head	55° 11.9' N 7° 33.2' W	<b>FI.(2)W.R.</b> period 5s fl. 0.6s, ec. 0.9s fl. 0.6s, ec. 2.9s	161 49	W. 12 R. 9	House; 20.	R. 320°-328°, W. -183°, R. -196°.
7248 A 6174	-Buncrana, pier, head	55° 07.6' N 7° 27.8' W	<b>Iso.W.R.</b> period 4s	36 11	W. 13 R. 10	Red tower, white banded; 20.	R. 300°-52°, W. -139°, R. -195° over White Strand Rock. Bearing 300° is the approximate S Shoreline Limit. Bearing 195° is the approximate N Shoreline Limit.
7252 A 6176	-Rathmullan, pier, head	55° 05.7' N 7° 31.6' W	<b>FI.G.</b> period 3s		5	Green structure.	Visible 206°-345°.
MULROY BAY AND LOUGH:							
7256 A 6180	-Ravedy Island, N. head	55° 15.1' N 7° 46.9' W	<b>FI.W.</b> period 3s fl. 0.3s, ec. 2.7s	30 9	3	Concrete tower; 15.	Visible 177°-357°.
7260 A 6186	-Dundooan Rocks	55° 13.0' N 7° 48.0' W	<b>Q.G.</b>	13 4	1	Green concrete tower; 13.	
7264 A 6190	-Crannoge Point, W. side of lough	55° 12.3' N 7° 48.4' W	<b>FI.G.</b> period 5s fl. 0.5s, ec. 4.5s	16 5	2	Green concrete tower; 13.	
<b>IRELAND-WEST COAST</b>							
7268 A 6196	-Downings Bay, pier, head	55° 11.4' N 7° 50.4' W	<b>FI.R.</b> period 3s	16 5	2	Red post.	Visible 283°-90°.
7272 A 6198.5	-Portnablahy Range, front	55° 10.8' N 7° 55.8' W	<b>Oc.W.</b> period 6s	23 7	2	Red concrete column, white banded.	

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>IRELAND-WEST COAST</b>							
7276 A 6198.51	--Rear, 81 meters 125°15' from front	55° 10.8' N 7° 55.6' W	<b>Oc.W.</b> period 6s	39 12	2	White concrete column, red banded.	
7280 A 6200	Tory Island	55° 16.4' N 8° 14.9' W	<b>Fl.(4)W.</b> period 30s fl. 0.8s, ec. 4.2s fl. 0.8s, ec. 4.2s fl. 0.8s, ec. 4.2s fl. 0.8s, ec. 14.2s	131 40	18	Black tower, white band; 89.	Visible 302°-277°.
	RACON		<b>M(-)</b>		12		(3 & 10 cm).
7284 A 6203	Bloody Foreland	55° 09.5' N 8° 17.0' W	<b>Fl.W.G.</b> period 7.5s	46 14	W. 6 G. 4	White concrete building; 12.	W. 62°-232°, G. -62°.
7285 A 6203.5	Glassagh, Range, front	55° 06.8' N 8° 18.9' W	<b>Oc.W.</b> period 8s lt. 6s, ec. 2s	39 12	3	White concrete column, black banded; 19.	
7285.1 A 6203.51	--Rear, 46 meters 137°25' from front	55° 06.8' N 8° 18.9' W	<b>Oc.W.</b> period 8s lt. 6s, ec. 2s	56 17	3	Black concrete column, white banded; 16.	Synchronized with front.
7288 A 6204	Inishsirr Island, NW	55° 07.4' N 8° 20.8' W	<b>Fl.W.</b> period 3.7s fl. 0.7s, ec. 3s	66 20	4	White square concrete tower; 13.	Visible 83°-263°.
7288.4 A 6204.2	-Gola Island Range, front	55° 05.1' N 8° 21.0' W	<b>Oc.W.</b> period 3s lt. 2s, ec. 1s	30 9	2	White concrete beacon, black banded; 20.	
7288.8 A 6204.21	--Rear, 86 meters 171°14' from front	55° 05.1' N 8° 21.0' W	<b>Oc.W.</b> period 3s	43 13	2	Black concrete beacon, white banded; 16.	Synchronized with front.
7289 A 6204.4	-Bo Island	55° 04.8' N 8° 20.1' W	<b>Fl.G.</b> period 3s fl. 0.3s, ec. 2.7s	10 3		Green concrete beacon; 23.	
7292 A 6206	Rinnalea Point	55° 02.6' N 8° 23.6' W	<b>Fl.W.</b> period 7.5s fl. 0.3s, ec. 7.2s	62 19	9	Square tower; 7.	Visible 132°-167°. F.W.light 0.6 miles SW. Occasional.
7296 A 6208	Aranmore	55° 00.8' N 8° 33.5' W	<b>Fl.(2)W.</b> period 20s fl. 0.2s, ec. 4.3s fl. 0.2s, ec. 15.3s	233 71	18	White tower; 75.	Visible 7°-234°. Bearing 7° and 234° are the approximate Shoreline Limits. Obscured by land on approximate bearings between 12.5° and 13.5°.
			<b>Fl.R.</b> period 3s fl. 0.7s, ec. 2.3s	200 61	13		Visible 203°-234°.
7297 A 6214.9	-Cloghcor Range, front	54° 58.5' N 8° 29.7' W	<b>Iso.W.</b> period 8s	46 14	2	White concrete beacon, black banded; 30.	
7297.1 A 6214.91	--Rear, 111 meters 048°30' from front	54° 58.5' N 8° 29.6' W	<b>Iso.W.</b> period 8s	56 17	2	Black concrete beacon, white banded; 10.	Synchronized with front.
7297.5 A 6214.95	-Aphort Range, front	54° 58.3' N 8° 31.3' W	<b>Oc.W.</b> period 4s	33 10	1	Concrete beacon; 23.	
7297.51 A 6214.96	--Rear, 346 meters 308°25' from front	54° 58.5' N 8° 31.6' W	<b>Oc.W.</b> period 4s	39 12	1	Black concrete beacon, white banded; 23.	
	NORTH SOUND OF ARAN ISLAND:						
7298 A 6211.2	-Black Rocks	54° 59.4' N 8° 29.6' W	<b>Fl.R.</b> period 3s	10 3	1	Red concrete column; 13.	Base of structure submerged at high water.
	SOUTH SOUND OF ARAN ISLAND:						
7300 A 6213.6	-Illancrone Island	54° 56.3' N 8° 28.4' W	<b>Fl.W.</b> period 5s fl. 0.5s, ec. 4.5s	23 7	6	White square concrete tower; 11.	

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>IRELAND-WEST COAST</b>							
7304 A 6213.8	-Wyon (Wine) Point	54° 56.5' N 8° 27.3' W	<b>Fl.(2)W.R.G.</b> period 10s	26 8	W. 6 R. 3 G. 3	White square tower; 16.	G. 352°-21°, W. -42°, R. -121°, W. -150°, R. -208°. Bearing 352° is the approximate S Shoreline Limit. Bearing 208° is the approximate N Shoreline Limit.
7308 A 6214	-Turk Rocks	54° 57.3' N 8° 28.2' W	<b>Fl.G.</b> period 5s fl. 0.5s, ec. 4.5s	20 6	2	Green square concrete tower; 30.	
7312 A 6214.2	-Aileen Reef	54° 58.2' N 8° 28.8' W	<b>Q.R.</b>	20 6	1	Red square concrete beacon, base with steps; 30.	Neon.
7316 A 6214.4	-Stream Rock	54° 58.7' N 8° 28.6' W	<b>Fl.W.</b> period 5s fl. 1s, ec. 4s	10 3	2	White square brickwork tower; 16.	
RUTLAND ISLAND SOUTH CHANNEL:							
7320 A 6214.6	-Corren's Rock	54° 58.1' N 8° 26.7' W	<b>Fl.R.</b> period 3s fl. 1s, ec. 2s	13 4	2	Red square concrete tower; 19.	
7324 A 6214.8	-Teige's Rocks	54° 58.6' N 8° 26.8' W	<b>Fl.W.</b> period 3s fl. 0.3s, ec. 2.7s	13 4	2	White round concrete tower, square base; 16.	
7328 A 6215	Dawros Head	54° 49.6' N 8° 33.6' W	<b>L.Fl.W.</b> period 10s fl. 2s, ec. 8s	128 39	4	White square column; 10.	
7332 A 6216	Rathlin O'Birne Island	54° 39.9' N 8° 49.9' W	<b>Fl.W.R.</b> period 15s fl. 0.3s, ec. 14.7s	115 35	W. 12 R. 10	White tower; 66.	R. 195°-307°, W. -195°.
	RACON		<b>O(---)</b>		13		Visible 284°-203°. (3 & 10 cm).
7336 A 6222	St. John's Point, Donegal Bay	54° 34.1' N 8° 27.6' W	<b>Fl.W.</b> period 6s fl. 1.5s, ec. 4.5s	98 30	14	White tower; 46.	<b>AIS</b> (MMSI No 992501197).
KILLEYBEGS:							
7340 A 6224	-Rotten Island	54° 36.9' N 8° 26.4' W	<b>Fl.W.R.</b> period 4s fl. 1s, ec. 3s	66 20	W. 15 R. 11	White tower; 47.	W. 255°-8°, R. -39°, W. -208°.
7352 A 6228	-Black Rock jetty	54° 38.3' N 8° 26.5' W	<b>2F.R.</b> (vert.)	23 7		Grey metal post, white base; 10.	
SLIGO HARBOR:							
7360 A 6232	-Blackrock	54° 18.4' N 8° 37.0' W	<b>Fl.W.R.</b> period 5s fl. 0.3s, ec. 4.7s	79 24	W. 10 R. 8	White tower, black banded; 83.	W. 130°-107°, R. -130°.
7362 A 6257	Sligo Airport, AVIATION LIGHT	54° 16.5' N 8° 36.0' W	<b>Al.Fl.W.G.</b> period 2.5s	39 12	23	Control tower; 20.	Occasional.
NEEDLES CHANNEL:							
7364 A 6236	-Lower Rosses, N. of point	54° 19.7' N 8° 34.4' W	<b>Dir.Fl.(2)W.R.G.</b> period 10s fl. 1s, ec. 1s fl. 1s, ec. 7s	26 8	10	White hut on piles.	G. 61°-66°, W. -70°, R. -75°.
7368 A 6244	-Metal Man Rock Range, front	54° 18.2' N 8° 34.5' W	<b>Fl.(3)W.</b> period 6.1s fl. 0.4s, ec. 1s fl. 0.4s, ec. 1s fl. 0.4s, ec. 2.9s	10 3	7	Statue on tower; 16.	
7372 A 6244.1	--Rear, near NW. point, 365 meters 125° from front	54° 18.1' N 8° 34.2' W	<b>Fl.(3)W.</b> period 6.1s fl. 0.4s, ec. 1s fl. 0.4s, ec. 1s fl. 0.4s, ec. 2.9s	43 13	7	Tower; 39.	Synchronized with front.
7376 A 6260	Inishcrone, Killala Bay	54° 13.2' N 9° 05.8' W	<b>Fl.W.R.G.</b> period 1.5s	26 8	2	Concrete column; 16.	W. 98°-116°, G. -136°, R. -187°.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>IRELAND-WEST COAST</b>							
7378 A 6265	Killala Bay Bone Rock, NE. end	54° 15.8' N 9° 11.2' W	<b>Q.W.</b>	23 7		N. CARDINAL Yellow beacon, black top.	
7380 A 6266	Broadhaven, Gubacashel Point, W. side of entrance	54° 16.0' N 9° 53.3' W	<b>Iso.W.R.</b> period 4s	89 27	<b>W. 17</b> <b>R. 12</b>	White tower; 50.	R. 110°-133°, W. -355°, R. -21°.
7384 A 6268	Eagle Island	54° 17.0' N 10° 05.5' W	<b>Fl.(3)W.</b> period 15s fl. 0.7s, ec. 2s fl. 0.7s, ec. 2s fl. 0.7s, ec. 8.9s	220 67	<b>18</b>	White tower; 36.	<b>AIS</b> (MMSI No 992501189).
7388 A 6270	Blackrock	54° 04.1' N 10° 19.2' W	<b>Fl.W.R.</b> period 12s fl. 0.3s, ec. 11.7s	282 86	<b>W. 18</b> <b>R. 14</b>	White tower; 49.	W. 276°-212°, R. -276°.
7392 A 6272	Blacksod Point	54° 06.0' N 10° 03.6' W	<b>Fl.(2)W.R.</b> period 7.5s fl. 0.5s, ec. 1s fl. 0.5s, ec. 5.5s	43 13	<b>W. 12</b> <b>R. 9</b>	White tower, dwelling; 39.	R. 189°-210°, W. -18°.
7396 A 6272.5	Achill Island, Ridge Point	54° 01.8' N 9° 58.5' W	<b>Fl.W.</b> period 5s fl. 0.5s, ec. 4.5s	69 21	5	Mast; 16.	
7400 A 6273.3	-Saulia, pier	53° 57.1' N 9° 55.5' W	<b>Fl.G.</b> period 3s fl. 0.5s, ec. 2.5s	39 12		Green concrete column; 10.	
7402 A 6273.8	-Beacon	53° 52.1' N 9° 56.5' W	<b>Fl.R.</b> period 2s fl. 0.2s, ec. 1.8s	16 5		Red square concrete tower.	
7404 A 6274	-Carrigin-a-tShrutha	53° 52.3' N 9° 56.7' W	<b>Q.(2)R.</b> period 5s			Red concrete beacon on rock; 16.	
7408 A 6279	Roonagh Quay Range, front	53° 45.8' N 9° 54.2' W	<b>Iso.Bu.</b> period 10s	30 9			
7412 A 6279.1	--Rear, 54 meters 144° from front	53° 45.7' N 9° 54.2' W	<b>Iso.Bu.</b> period 10s	49 15			Synchronized with front.
7416 A 6276	-Achillbeg Island	53° 51.5' N 9° 56.8' W	<b>Fl.W.R.</b> period 5s fl. 1s, ec. 4s	184 56	<b>W. 14</b> <b>R. 9</b> <b>R. 16</b>	White round tower, square building; 30.	R. 262°-281°, W. -342°, R. -60°, W. -92°, R. INTENSIFIED-99°, W. Obscured -118° by Clare Island and the Bills.
7420 A 6275.3	-Purteen, pier, head	53° 57.9' N 10° 06.0' W	<b>Q.R.</b>			Red concrete column; 10.	
7424 A 6277.5	Clare Island, E. pier	53° 48.0' N 9° 57.0' W	<b>Fl.R.</b> period 3s	16 5	3		
7428 A 6278	-Inishgort, island, S. point	53° 49.6' N 9° 40.2' W	<b>L.Fl.W.</b> period 10s fl. 2s, ec. 8s	36 11	10	White tower; 26.	<b>AIS</b> (MMSI No 992501179).
7432 A 6280	Inishbofin, Lyon Head	53° 36.7' N 10° 09.5' W	<b>Fl.W.R.</b> period 7.5s fl. 0.7s, ec. 6.8s	43 13	<b>W. 7</b> <b>R. 4</b>	White post, concrete structure; 16.	W. 36°-58°, R. -184°, W. -325°, R. -36°.
7436 A 6282	Gun Rock, off S. side of Inishbofin	53° 36.6' N 10° 13.2' W	<b>Fl.(2)W.</b> period 6s fl. 0.6s, ec. 1.4s fl. 0.6s, ec. 3.4s	26 8	4	White column, white hut; 15.	Visible 296°-253° except where obscured by islands.
7440 A 6284	Cleggan Point	53° 34.5' N 10° 07.7' W	<b>Fl.(3)W.R.G.</b> period 15s fl. 0.5s, ec. 3.5s fl. 0.5s, ec. 3.5s fl. 0.5s, ec. 6.5s	66 20	<b>W. 6</b> <b>R. 3</b> <b>G. 3</b>	White column, white hut; 16.	G. 345°-91°, W. -124°, R. -221°. Bearing 345° is the approximate S Shoreline Limit.
7444 A 6288	Slyne Head	53° 24.0' N 10° 14.0' W	<b>Fl.(2)W.</b> period 15s fl. 0.1s, ec. 2.4s fl. 0.1s, ec. 12.4s	115 35	<b>19</b>	Black tower; 79.	
	RACON		<b>T(-)</b>		<b>16</b>		(3 cm).
7448 A 6290	Inishnee	53° 22.8' N 9° 54.5' W	<b>Fl.(2)W.R.G.</b> period 10s fl. 0.5s, ec. 1s fl. 0.5s, ec. 8s	30 9	5	White concrete blockhouse; 13.	G. 314°-17°, W. -30°, R. -80°, W. -194°.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>IRELAND-WEST COAST</b>							
7452 A 6292	Croaghnaकेela Island	53° 19.4' N 9° 58.1' W	<b>FI.W.</b> period 3.7s fl. 0.7s, ec. 3s	23 7	5	White concrete column; 14.	W. 34°-45°, W. 218°-286°, W. 311°-325°.
GALWAY BAY:							
7456 A 6302	-Kiggaul Bay, head	53° 14.0' N 9° 43.0' W	<b>FI.W.R.G.</b> period 3s fl. 0.6s, ec. 2.4s	16 5	5	White concrete blockhouse on concrete base; 10.	G. 310°-329°, W. -349°, R. -59° except where obscured by the W Shore of the bay.
7460 A 6304	-Cashla Bay, W. side of entrance	53° 14.2' N 9° 35.2' W	<b>FI.(3)W.R.</b> period 10s fl. 0.6s, ec. 1s fl. 0.6s, ec. 1s fl. 0.6s, ec. 6.2s	26 8	W. 8 R. 6	White metal column on concrete structure; 16.	W. 216°-0°, R. -69°. Shown 24 hours.
7462 A 6304.5	-Lion Point, 010°	53° 15.8' N 9° 33.9' W	<b>Dir.Iso.W.R.G.</b> period 5s	20 6	W. 8 R. 6 G. 6	White square concrete tower, black stripe, column.; 13.	G. 5°-8°30', W. -11°30', R. -15°. Range 3/2M by day.
7464 A 6305	-Rossaveel pier range, front	53° 16.0' N 9° 33.4' W	<b>Oc.W.</b> period 3s lt. 2s, ec. 1s	39 12	3	White post, red triangle, point up daymark.	
7468 A 6305.1	--Rear, 47 meters 116° from front	53° 16.0' N 9° 33.0' W	<b>Oc.W.</b> period 3s lt. 2s, ec. 1s	46 14	3	White post, red triangle, point down daymark.	
7472 A 6296	--Eeragh Island	53° 08.9' N 9° 51.3' W	<b>FI.W.</b> period 15s fl. 0.2s, ec. 14.8s	115 35	18	White tower, black banded; 101.	Visible 297°-262°.
7480 A 6298	--Straw Island	53° 07.1' N 9° 37.8' W	<b>FI.(2)W.</b> period 5s fl. 0.4s, ec. 1.3s fl. 0.4s, ec. 2.9s	36 11	12	White tower; 36.	
7484 A 6299	--Killeany Bay Range, front	53° 06.3' N 9° 39.7' W	<b>Oc.W.</b> period 5s	20 6	3	White column, white square base; 13.	Visible 142°-197°.
7488 A 6299.1	--Rear, 43 meters 192° from front	53° 06.3' N 9° 39.7' W	<b>Oc.W.</b> period 5s	26 8	2	White column, white square base; 13.	Visible 142°-197°.
7492 A 6300	-Kilronan, pier, head	53° 07.1' N 9° 40.0' W	<b>2F.R.</b>	16 5	3	Beacon.	Visible 167°-347°.
7494 A 6301	-Kilkieran, Pier	53° 19.3' N 9° 43.8' W	<b>FI.R.</b> period 3s	13 4	4	Red metal post.	
7496 A 6334	--Inisheer	53° 02.8' N 9° 31.5' W	<b>Iso.W.R.</b> period 12s	112 34	W. 16 R. 11	White tower, black banded; 112.	W. 225°-231° (visible beyond 7M), W. -245°, R. -269°, W. -115°.
	RACON		<b>K(- - -)</b>		13		Visible 216°-144°.(3 & 10 cm).
7500 A 6332	-Black Head	53° 09.2' N 9° 15.8' W	<b>FI.W.R.</b> period 5s fl. 1s, ec. 4s	66 20	W. 11 R. 8	White square concrete tower; 26.	W. 45°-268°, R. -276°.
7504 A 6308	-Spiddle, pier, E. head	53° 14.4' N 9° 18.5' W	<b>FI.W.R.G.</b> period 3.5s	36 11	8	Yellow metal column; 10.	G. 265°-308°, W. -24°, R. -66°.
7508 A 6317	-Galway Harbor, Leverets	53° 15.3' N 9° 01.9' W	<b>Q.W.R.G.</b>	30 9	10	Black round concrete tower, white banded.	G. 15°-58°, W. -65°, R. -103°, G. -143°30', W. -146°30', R. -15°.
7512 A 6318	--Rinmore	53° 16.1' N 9° 02.0' W	<b>Iso.W.R.G.</b> period 4s	23 7	5	White square tower.	G. 359°-8°, W. -18°, R. -27°.
7516 A 6320	--Approach channel, port entry	53° 16.1' N 9° 02.8' W	<b>Dir.F.W.R.G.</b>	23 7	3		G. 322°15'- 323°45', Al.W.G.- 324°45', W.-325°15', Al.W.R.-326°15', R.- 331°15', Fl.R.- 332°15'.
7524 A 6322	-Nimmo, pier, head	53° 16.0' N 9° 02.8' W	<b>FI.Y.</b> period 2s	23 7	7	Mast; 20.	
7528 A 6338	Loop Head	52° 33.7' N 9° 55.9' W	<b>FI.(4)W.</b> period 20s fl. 0.1s, ec. 2.4s fl. 0.1s, ec. 2.4s fl. 0.1s, ec. 2.4s fl. 0.1s, ec. 12.4s	276 84	23	White tower; 75.	Visible 280°-218°.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>IRELAND-WEST COAST</b>							
7530	Ballybunnion Buoy	52° 32.5' N 9° 46.9' W	<b>V.Q.W.</b>			N. CARDINAL Black pillar, yellow base.	
	RACON		<b>M(- -)</b>		6		(3 & 10 cm).
	RIVER SHANNON:						
7533 A 6340.5	-Corlis Pt. Range, front	52° 37.1' N 9° 36.4' W	<b>Iso.W.</b> period 4s	30 9	10	Concrete building.	<b>AIS</b> (MMSI No 992501156).
7534 A 6340.51	-Querrin Quay, rear, 046°42' from front	52° 37.7' N 9° 35.3' W	<b>Iso.W.</b> period 4s	92 28	10	Latticed mast.	F.R. on top of mast. Shown 24 hours.
7536 A 6342	-Scattery Island	52° 36.4' N 9° 31.1' W	<b>Fl.(2)W.</b> period 8s fl. 0.5s, ec. 1s fl. 0.5s, ec. 6s	49 15	10	White tower; 39.	Visible 208°-92°.
7540 A 6343	-Tarbert Island	52° 35.5' N 9° 21.8' W	<b>Q.W.R.</b>	59 18	W. 14 R. 10	White round tower; 85.	W. 69°-277°, R. -287°, W. - 339°.
7544 A 6344.6	-Tarbert Range, front	52° 34.4' N 9° 18.8' W	<b>Iso.W.</b> period 3s	43 13	3	White metal tower, triangle, point up daymark.	Visible 123°12'-133°12'.
7548 A 6344.61	--Rear, 400 meters 128°15' from front	52° 34.2' N 9° 18.5' W	<b>Iso.W.</b> period 5s	59 18	3	White beacon, red stripe.	
7552 A 6345	-Garraunbaun Point	52° 35.6' N 9° 13.9' W	<b>Fl.(3)W.R.</b> period 10s fl. 0.3s, ec. 1s fl. 0.3s, ec. 1s fl. 0.3s, ec. 7.1s	52 16	W. 8 R. 5	White square column; 10.	R. 52°-72°, W. -242°, R. - 262°. Bearing 52° is the approximate W Shoreline Limit. Bearing 262° is the approximate E Shoreline Limit.
7556 A 6346	-Rinealon Point	52° 37.1' N 9° 09.8' W	<b>Fl.W.</b> period 2.5s fl. 0.2s, ec. 2.3s	13 4	7	White structure.	Visible 234°-88°.
7560 A 6347.15	-Foynes Harbor, W. channel Range, front	52° 36.9' N 9° 06.5' W	<b>Oc.W.</b> period 4s lt. 3s, ec. 1s	112 34	12	Grey metal post; 108.	
7564 A 6347.16	--E. jetty, rear, 107°54' from front	52° 36.8' N 9° 06.1' W	<b>Oc.W.</b> period 4s lt. 3s, ec. 1s	128 39	12	Grey metal post; 125.	
7568 A 6347.41	-Colleen Point	52° 36.9' N 9° 06.9' W	<b>Q.(5)G.</b>	7 2	2	Green metal piles; 23.	
7576 A 6348	-Beeves Rocks	52° 39.0' N 9° 01.3' W	<b>Fl.W.R.</b> period 5s fl. 1s, ec. 4s	39 12	W. 12 R. 9	Dark stone tower; 60.	W. 64°30'-91°, R. -238°, W. - 265°, W. UNINTENSIFIED265°- 64°30'.
7580 A 635	-Shannon AVIATION LIGHT	52° 41.7' N 8° 55.7' W	<b>Al.FI.W.G.</b> period 5s	131 40		Control tower.	
	TRALEE BAY:						
7584 A 6392	-Little Samphire Island	52° 16.3' N 9° 52.9' W	<b>Fl.W.R.G.</b> period 5s fl. 1s, ec. 4s	56 17	W. 14 R. 11 G. 11	Round masonry tower.	R. 262°-275°, R. 280°-90°, G. -140°, W. -152°, R. -172°.
7588 A 6394	-Great Samphire Island	52° 16.1' N 9° 52.2' W	<b>Q.R.</b>	49 15	3	Red post.	Visible 242°-97°.
7592 A 6396	-Fenit, pier, head	52° 16.2' N 9° 51.8' W	<b>2F.R.</b> (vert.)	39 12	3	Mast; 23.	Visible 148°-58°.
7596 A 6406	Brandon pier, head	52° 16.0' N 10° 09.6' W	<b>Fl.G.</b> (vert.) period 5s	16 5	4	Column; 10.	
7600 A 6408	Inishtearaght Island	52° 04.5' N 10° 39.7' W	<b>Fl.(2)W.</b> period 20s fl. 0.1s, ec. 4.9s fl. 0.1s, ec. 14.9s	276 84	18	White tower; 56.	Visible 318°-221°.
	RACON		<b>O(- - -)</b>		18		Visible 313°-221°. (3 & 10 cm).

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>IRELAND-WEST COAST</b>							
7604 A 6410	Dingle Harbor	52° 07.3' N 10° 15.5' W	<b>Dir.FI.W.R.G.</b> period 3s	66 20	6	White metal tower; 23.	G. 310°-328°, W. -0°, R. -24°.
VALENTIA HARBOUR:							
7612 A 6416	-Cromwell (Fort) Point	51° 56.0' N 10° 19.3' W	<b>FI.W.R.</b> period 2s fl. 0.5s, ec. 1.5s	52 16	<b>W. 17</b> R. 10	White tower; 48.	W. 104°-304°, R. -351°. Obscured from Seaward in Dingle Bay beyond Doulus Head 180° - 240°. F.R. lights mark 4 radio masts 1.25 miles WSW.
7616 A 6417	-Valentia Harbour	51° 55.5' N 10° 18.4' W	<b>Dir.Oc.W.R.G.</b> period 4s lt. 3s, ec. 1s	82 25	W. 11 R. 8 G. 8	White conical tower, red stripe.	G. 136°-140°, W. -142°, R. -146°. Range 3/2M by day.
7622 A 6417.5	-Harbor Rock	51° 55.8' N 10° 18.9' W	<b>Q.(3)W.</b> period 10s	13 4	5	E. CARDINAL Black beacon, yeallow banded.	Visible 80°-40°.
7624 A 6422	Skelligs Rock	51° 46.1' N 10° 32.5' W	<b>FI.(3)W.</b> period 15s fl. 0.3s, ec. 2.3s fl. 0.3s, ec. 2.3s fl. 0.3s, ec. 9.5s	174 53	12	White tower; 39.	<b>AIS</b> (MMSI No 992501137).Visible 262°-115°, Partially obscured 110°-115° within 6 miles.
7628 A 6426	Darrynane Bay Range, front	51° 45.9' N 10° 09.2' W	<b>Oc.W.</b> period 3s	33 10	4	Beacon; 14.	
7632 A 6426.1	-Rear, 034° from front	51° 46.0' N 10° 08.9' W	<b>Oc.W.</b> period 3s	52 16	4	Beacon; 17.	
7636 A 6430	Bull Rock	51° 35.5' N 10° 18.1' W	<b>FI.W.</b> period 15s fl. 0.8s, ec. 14.2s	299 91	<b>18</b>	Square structure; 75.	<b>AIS</b> (MMSI No 992501134).
RACON			<b>N(- +)</b>		<b>16</b>		(3 & 10 cm).
BANTRY HEAD:							
7640 A 6434	-Bearhaven	51° 37.1' N 9° 55.1' W	<b>FI.(2)W.R.</b> period 10s fl. 1s, ec. 2s fl. 1s, ec. 6s	203 62	W. 14 R. 9	White round tower; 66.	<b>AIS</b> (MMSI No 992501131).R. 319°-348°, W. -66°, R. -205°. F.R. on radio tower 3.45 miles WNW.
7644 A 6436	--Castletown	51° 38.8' N 9° 54.3' W	<b>Dir.Oc.W.R.G.</b> period 5s lt. 4s, ec. 1s	20 6	<b>W. 15</b> R. 12 G. 12	Metal post; 10.	<b>AIS</b> (MMSI No 992501125).G. 20°30'-23°, W. -23°30', R. -25°30'.
7650 A 6438.5	--Cametringane Spit	51° 38.9' N 9° 54.5' W	<b>Q.R.</b>			Red square column.	
7652 A 6439	---Range, front	51° 39.2' N 9° 54.4' W	<b>Oc.Bu.</b> period 6s lt. 4s, ec. 2s	13 4	6	White concrete column, red banded; 10.	Visible 5°-13°.
7656 A 6439.1	---Range, rear 80 meters 008° from front	51° 39.2' N 9° 54.4' W	<b>Oc.Bu.</b> period 6s lt. 4s, ec. 2s	23 7	6	White rectangular daymark, red stripe; 13.	Visible 5°-13°.
7658 A 6440	-Oilean na gCadrach	51° 38.4' N 9° 53.9' W	<b>Q.W.</b>	10 3	3	Black beacon, yellow base; 16.	
7659 A 6441	-Bearhaven, Beal Lough	51° 39.3' N 9° 51.2' W	<b>FI.G.</b> period 3s	16 5	2	STARBOARD (IALAA) Green column, green triangle, point up daymark; 23.	
7660 A 6442	-Roancarrimore	51° 39.2' N 9° 44.8' W	<b>FI.W.R.</b> period 5s fl. 1s, ec. 4s	43 13	W. 11 R. 9	Metal tower; 23.	<b>AIS</b> (MMSI No 992501130).W. 312°-50°, R. -122°, R. UNINTENSIFIED-207°, Obscured -246° by old lighthouse, R. -312°.
7672 A 6445	---SW. Dolphin	51° 41.2' N 9° 32.1' W	<b>Q.Y.</b>	13 4	2	Metal mast on dolphin.	
7676 A 6445.2	---NE. Dolphin	51° 41.3' N 9° 31.7' W	<b>Q.Y.</b>	13 4	2	Metal mast on dolphin.	

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>IRELAND-WEST COAST</b>							
7678 A 6445.7	--W. Battery	51° 40.9' N 9° 31.7' W	<b>Fl.(3)G.</b> period 15s	10 3	2	STARBOARD (IALA A) Green beacon, green triangle, point up daymark; 10.	
7680 A 6432	-Sheep's (Sheep) Head	51° 32.6' N 9° 50.9' W	<b>Fl.(3)W.R.</b> period 15s fl. 1s, ec. 1.5s fl. 1s, ec. 1.5s fl. 1s, ec. 9s	272 83	<b>W. 15</b> R. 9	White building; 23.	<b>AIS</b> (MMSI No 992501129).R. 11°18'- 16°36', W. -212°30', Partially obscured -233°. Bearing 233° is the approximate Shoreline Limit.
7684 A 6448	Mizen Head	51° 27.0' N 9° 49.2' W	<b>Iso.W.</b> period 4s	180 55	12	Concrete platform, lantern.	<b>AIS</b> (MMSI No 992501127).Visible 313°- 133°.
7688 A 6450	Crookhaven, Rock Island Point	51° 28.6' N 9° 42.3' W	<b>L.Fl.W.R.</b> period 8s fl. 2s, ec. 6s	66 20	W. 13 R. 11	White tower; 46.	<b>AIS</b> (MMSI No 992501124). Visible W. 131°-281°, R. - 340° outside the harbor, visible R. 281°-348°, W. - 111° inside the harbor, R. 281°-340° visible over Long Island Bay.
<b>FRANCE-NORTH COAST</b>							
7692 A 1836	Corn-Carhai, Roches de Portsall	48° 35.2' N 4° 43.9' W	<b>Fl.(3)W.</b> period 12s fl. 1s, ec. 1.5s fl. 1s, ec. 1.5s fl. 1s, ec. 6s	62 19	9	White octagonal tower, black top; 66.	
7700 A 1838	Portsall	48° 33.8' N 4° 42.2' W	<b>Oc.(4)W.R.G.</b> period 12s lt. 1s, ec. 1s lt. 1s, ec. 1s lt. 1s, ec. 1s lt. 5s, ec. 1s	30 9	W. 14 R. 9 G. 10	White column, red top; 23.	G. 58°-84°, W. -88°, R. -58°.
L'ABERWRAC'H:							
7704 A 1826	-Grand Chenal First Range, front, Ile Vrach, N. side of entrance	48° 36.9' N 4° 34.5' W	<b>Q.R.</b>	66 20	7	White square tower, red top, dwelling; 49.	
7708 A 1826.1	--Rear, Lanvaon, 3 km. 100°06' from front	48° 36.6' N 4° 32.1' W	<b>Q.W.</b>	180 55	12	White rectangular tower, orange triangle, point up daymark; 89.	Visible INTENSIFIED90°- 110°. Synchronized with front.
7712 A 1831	-Leading light	48° 35.9' N 4° 33.9' W	<b>Dir.Oc.(2)W.R.G.</b> period 6s lt. 1s, ec. 1s lt. 3s, ec. 1s	16 5	W. 13 R. 11 G. 11	White structure; 16.	G. 125°48'-127°12', W. - 128°48', R. -130°12'.
7716 A 1822	Ile Vierge	48° 38.3' N 4° 34.1' W	<b>Fl.W.</b> period 5s fl. 0.3s, ec. 4.7s	253 77	26	Grey truncated tower; 269.	Visible 337°-325°.
7720 A 1820	Pontusval Pointe de Beg- Pol	48° 40.6' N 4° 20.7' W	<b>Oc.(3)W.R.</b> period 12s lt. 1.5s, ec. 1.5s lt. 1.5s, ec. 1.5s lt. 4.5s, ec. 1.5s	52 16	W. 10 R. 7	White square tower, black top, white dwelling; 49.	W. 96°-56°, R. -96°. 3 Q.Y. (occasional) at base. 9 Q.W. (vert.) on radio tower 2.4M S.
7724 A 1818	Mogueriec Range, front	48° 41.4' N 4° 04.5' W	<b>Iso.W.G.</b> period 4s	30 9	W. 11 G. 6	White tower, green top; 33.	W. 158°-166°, G. -158°.
7728 A 1818.1	-Rear, 440 meters 162° from front	48° 41.1' N 4° 04.5' W	<b>Iso.G.</b> period 4s	82 25	9	White tower, green top; 36.	Visible 142°-182°.
7732 A 1816	Ile de Batz	48° 44.7' N 4° 01.6' W	<b>Fl.(4)W.</b> period 25s fl. 0.5s, ec. 3.6s fl. 0.5s, ec. 3.6s fl. 0.5s, ec. 3.6s fl. 0.5s, ec. 12.2s	226 69	23	Grey tower, black lantern; 151.	
			<b>F.R.</b>	213 65	7		Visible 24°-59°.
BAIE DE MORLAIX:							

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>FRANCE-NORTH COAST</b>							
7740 A 1808	-Ar Chaden, on Pighet Islet	48° 44.0' N 3° 58.3' W	<b>Q.(6) + L.FI.W.R.</b> period 15s	46 14	W. 8 R. 6	S. CARDINAL Yellow tower, black topmark, black base; 66.	R. 262°-289°30', W. -293°, R. -326°, W. -110°.
7744 A 1810	-Men~Guen~Bras	48° 43.8' N 3° 58.1' W	<b>Q.W.R.G.</b>	46 14	W. 9 R. 6 G. 6	N. CARDINAL Black tower, black topmark, yellow base; 59.	W. 68°-73°, R. -197°, W. - 257°, G. -68°.
7748 A 1812	-Roscoff, Range, front	48° 43.6' N 3° 58.7' W	<b>Oc.(3)G.</b> period 12s lt. 1.5s, ec. 1.5s lt. 1.5s, ec. 1.5s lt. 4.5s, ec. 1.5s	23 7	7	White column, green top; 20.	Visible 78°-318°.
7752 A 1812.1	--Rear, 430 meters 209° from front	48° 43.3' N 3° 58.9' W	<b>Oc.(3)W.</b> period 12s lt. 1.5s, ec. 1.5s lt. 1.5s, ec. 1.5s lt. 4.5s, ec. 1.5s	79 24	15	Grey square tower, white front; 76.	Visible 62°-242°. Synchronized with front.
7756 A 1805	-Bloscon, jetty, head	48° 43.2' N 3° 57.7' W	<b>FI.W.G.</b> period 4s fl. 1s, ec. 3s	30 9	W. 10 G. 7	White round tower, green top; 20.	W. 200°-210°, G. -200°. Auxiliary light FI.W. 2s shown in fog only when vessels are entering.
7758 A 1804	-Le Menk	48° 43.3' N 3° 56.7' W	<b>Q.(9)W.R.</b> period 15s	16 5	W. 6 R. 4	W. CARDINAL Yellow tower, black topmark, black banded, yellow base; 39.	W. 160°-188°, R. -160°.
7760 A 1800.1	-Ile Louet Range, front in line 176°24' with La Lande	48° 40.5' N 3° 53.4' W	<b>Oc.(3)W.G.</b> period 12s lt. 1.5s, ec. 1.5s lt. 1.5s, ec. 1.5s lt. 4.5s, ec. 1.5s	56 17	W. 12 G. 8	White square tower, black top; 30.	G. 244°-305°, W. -244°.
7764 A 1800	-La Lande, common rear	48° 38.2' N 3° 53.1' W	<b>FI.W.</b> period 5s fl. 0.3s, ec. 4.7s	279 85	23	White square tower, black top; 62.	
7768 A 1799.9	-Ile Noire, E. side of entrance, front, in line 190°30' with La Lande	48° 40.3' N 3° 52.5' W	<b>Oc.(2)W.R.G.</b> period 6s lt. 3s, ec. 1s lt. 1s, ec. 1s	49 15	W. 11 R. 8 G. 8	White square tower, red lantern; 46.	G. 51°-135°, R. -211°, W. - 51°.
7772 A 1796	-Anse de Primel Range, front	48° 42.4' N 3° 49.2' W	<b>Q.R.</b> period 1.2s	89 27	5	White pylon, white rectangular daymark red vertical bands; 23.	Visible 134°-168°.
7776 A 1796.1	--Rear, 173 meters 152° from front	48° 42.4' N 3° 49.1' W	<b>Q.R.</b>	184 56	7	White rectangular wall, red vertical stripes, white rectangular daymark red vertical stripe; 13.	Synchronized with front.
BAIE DE LANNION:							
7780 A 1792	-Bec~Lequer	48° 44.3' N 3° 32.9' W	<b>Oc.(4)W.R.G.</b> period 12s lt. 1s, ec. 1s lt. 1s, ec. 1s lt. 1s, ec. 1s lt. 5s, ec. 1s	197 60	W. 12 R. 9 G. 9	West face of white building, red lantern; 26.	G. 7°-84°, W. -98°, R. -129°.
7784 A 1794	-Locquemeau Range, front	48° 43.4' N 3° 34.5' W	<b>Q.W.R.G.</b>	128 39	8	White gabled building; 20.	G. 115°30'-120°30', W. - 121°30', R. -126°30'.
7788 A 1794.1	--Rear, 484 meters 121° from front	48° 43.3' N 3° 34.1' W	<b>Q.R.</b>	128 39	7	White gabled building, red lantern; 20.	Visible 16°-232°. Synchronized with front.
7790 A 1791	Pointe de Lan Kerellec	48° 46.7' N 3° 35.0' W	<b>Iso.W.R.G.</b> period 4s	49 15	W. 8 R. 5 G. 5	Grey round tower; 13.	G. 58°-64°, W. -69°, R. -130°.
7792 A 1790	Les Triagoz	48° 52.3' N 3° 38.8' W	<b>FI.(2)W.R.</b> period 6s fl. 1s, ec. 1s fl. 1s, ec. 3s	102 31	W. 14 R. 11	Grey square tower, red lantern; 98.	W. 10°-339°, R. -10°. Reserve light range 10/7M.
7796 A 1786	Les Sept Iles	48° 52.7' N 3° 29.4' W	<b>FI.(3)W.</b> period 20s fl. 0.2s, ec. 4s fl. 0.2s, ec. 4s fl. 0.2s, ec. 11.4s	194 59	23	Grey tower, dwelling; 66.	
7800 A 1784	Mean Ruz	48° 50.3' N 3° 29.0' W	<b>Oc.W.R.</b> period 4s lt. 3s, ec. 1s	85 26	W. 12 R. 9	Pink square tower; 46.	W. 226°-242°, R. -226°.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>FRANCE-NORTH COAST</b>							
PERROS-GUIREC:							
7804 A 1782	-Mole Ouest	48° 48.2' N 3° 26.6' W	<b>FI.(2)R.</b> period 6s fl. 1s, ec. 1s fl. 1s, ec. 3s	13 4	6	White structure, red top; 13.	
7808 A 1774	-Passe de l'Est Range, front	48° 47.8' N 3° 26.7' W	<b>Q.W.</b>	92 28	14	White building; 23.	Visible INTENSIFIED214°48'- 234°48'.
7812 A 1774.1	--Kerprigent, rear, 2.8 km. 224°48' from front	48° 46.8' N 3° 28.2' W	<b>Q.W.</b>	259 79	21	White tower; 46.	Visible INTENSIFIED221°18'- 228°18'. Synchronized with front.
7816 A 1780	-Jetee Est (Linkin), head	48° 48.3' N 3° 26.3' W	<b>FI.(2)G.</b> period 6s fl. 1s, ec. 1s fl. 1s, ec. 3s	13 4	6	White structure, green top; 13.	
7820 A 1770	-Passe del'Ouest Kerjean	48° 47.8' N 3° 23.4' W	<b>Oc.(2+1)W.R.G.</b> period 12s lt. 4s, ec. 1s lt. 4s, ec. 1s lt. 1s, ec. 1s	256 78	W. 10 R. 8 G. 8	White tower, black top; 52.	G. 133°42'-143°12', W. - 144°48', R. -154°18'.
7824 A 1768	Port Blanc, on Tourelle du Voleur	48° 50.2' N 3° 18.5' W	<b>FI.W.R.G.</b> period 4s fl. 1s, ec. 3s	56 17	W. 14 R. 11 G. 11	White tower; 39.	G. 140°-148°, W. -152°, R. - 160°.
RIVIERE DE TREGUIER:							
7832 A 1760	-La Come	48° 51.3' N 3° 10.6' W	<b>FI.(3)W.R.G.</b> period 12s fl. 1s, ec. 1.5s fl. 1s, ec. 1.5s fl. 1s, ec. 6s	46 14	W. 8 R. 6 G. 6	White tower, red base; 75.	W. 52°-59°, R. -173°, G. - 213°, W. -220°, R. -52°.
7836 A 1762	-Grande Passe Range, front, Port de la Chaîne	48° 51.5' N 3° 07.9' W	<b>Oc.W.R.G.</b> period 4s lt. 3s, ec. 1s		W. 12 R. 11 G. 11	Red and white house; 16.	G. 131°48'-136°48', W. - 137°48', R. -142°48'.
7840 A 1762.1	--Saint Antonie, rear, 1.4 km. 137° from front	48° 51.0' N 3° 07.1' W	<b>Oc.R.</b> period 4s lt. 3s, ec. 1s	112 34	15	White and red building; 20.	Visible INTENSIFIED134°- 140°.
7844 A 1738	Les Heaux-de-Brehat	48° 54.5' N 3° 05.2' W	<b>FI.(4)W.R.G.</b> period 15s fl. 1s, ec. 1s fl. 1s, ec. 1s fl. 1s, ec. 1s fl. 1s, ec. 8s	157 48	W. 15 R. 11 G. 11	Grey tower; 187.	R. 227°-247°, W. -270°, G. - 302°, W. -227°.
7848 A 1734	Roches-Douvres	49° 06.3' N 2° 48.9' W	<b>FI.W.</b> period 5s fl. 0.1s, ec. 4.9s	197 60	24	Pink tower, green top, on building; 213.	
PLATEAU DE BARNOUIC:							
7852 A 1730	-Roche Barnouic, NE. of plateau	49° 01.5' N 2° 48.5' W	<b>V.Q.(3)W.</b> period 5s	49 15	7	E. CARDINAL Black tower, black topmark, yellow banded, black base; 52.	
7856 A 1726	La Horaine	48° 53.5' N 2° 55.2' W	<b>FI.(3)W.</b> period 12s fl. 1s, ec. 1.5s fl. 1s, ec. 1.5s fl. 1s, ec. 6s	43 13	7	Black hut on grey octagonal tower; 75.	
7860 A 1740	Ile de Brehat, Le Paon, N. side of island	48° 52.0' N 2° 59.1' W	<b>Oc.W.R.G.</b> period 4s	72 22	W. 10 R. 7 G. 6	White tower; 39.	W. 33°-78°, G. -181°, W. - 196°, R. -307°, W. -316°, R. -348°.
7864 A 1742	-Rosedo	48° 51.4' N 3° 00.3' W	<b>FI.W.</b> period 5s fl. 0.1s, ec. 4.9s	95 29	20	White tower; 43.	Reserve light range 15M.
7868 A 1744	-Men Joliguet	48° 50.1' N 3° 00.2' W	<b>FI.(2)W.R.G.</b> period 6s fl. 1s, ec. 1s fl. 1s, ec. 3s	20 6	W. 11 R. 8 G. 8	W. CARDINAL Yellow tower, black banded, two triangular topmarks points together; 26.	R. 255°-279°, W. -283°, G. - 175°.
TRIEUX:							

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>FRANCE-NORTH COAST</b>							
7872 A 1746	-Rocher Men Grenn, in Baiede Lanners	48° 51.3' N 3° 03.9' W	<b>Q.(9)W.</b> period 15s	23 7	7	W. CARDINAL Yellow tower, black topmark, black banded, yellow base; 33.	
7876 A 1748	-La Croix Range, front	48° 50.3' N 3° 03.3' W	<b>Q.W.</b>	49 15	18	Two grey towers, white on ne side, red tops; 75.	Visible INTENSIFIED214°48'- 234°48'.
7880 A 1748.1	--Bodic, rear, W. bank of river, 3.8 km. 224°48' from front	48° 48.8' N 3° 05.5' W	<b>Q.W.</b>	180 55	22	Green top, white trapezium daymark; 75.	Visible INTENSIFIED220°48'- 228°48'. Synchronized with front.
7884 A 1745	-Chenal du Ferlas, Roche Quinonec	48° 49.4' N 3° 03.7' W	<b>Dir.Q.W.R.G.</b>	39 12	W. 10 R. 8 G. 8	Grey round tower; 18.	G. 254°-257°, W. -257°42', R. -260°42'.
7888 A 1745.4	--Kermouster, mouth of the Trieux	48° 49.6' N 3° 05.2' W	<b>Dir.FI.W.R.G.</b> period 2s fl. 0.4s, ec. 1.6s	52 16	W. 10 R. 8 G. 8	White structure; 7.	G. 267°-270°, W. -272°, R. - 274°.
7892 A 1752	-Coatmer Range, front	48° 48.3' N 3° 05.8' W	<b>Q.R.G.</b>	52 16	7	White gabled structure; 36.	R. 200°-250°, G. -53°.
7896 A 1752.1	--Rear, 660 meters 218°42' from front	48° 48.0' N 3° 06.0' W	<b>Q.R.</b>	164 50	7	White gabled structure; 26.	Visible 197°-242°.
7900 A 1758	-Les Perdrix	48° 47.8' N 3° 05.8' W	<b>FI.(2)W.G.</b> period 6s fl. 0.2s, ec. 1.4s fl. 0.2s, ec. 4.2s	16 5	W. 6 G. 3	Green tower; 36.	G. 165°-197°, W. -202°30', G. -40°.
PAIMPOL:							
7904 A 1722	-Pointe de Porz~Don	48° 47.5' N 3° 01.6' W	<b>Dir.Oc.(2)W.R.</b> period 6s lt. 3s, ec. 1s lt. 1s, ec. 1s	43 13	W. 15 R. 11	White building; 26.	W. 269°-272°, R. -279°.
7908 A 1724	-Jete de Kernoa Range, front	48° 47.1' N 3° 02.5' W	<b>Q.R.</b>	16 5	7	Red and white building; 13.	
7912 A 1724.1	--Rear, 360 meters 262°12' from front	48° 47.0' N 3° 02.8' W	<b>Q.R.</b>	46 14	10	White cylindrical structure, red top; 39.	Visible INTENSIFIED260°12'- 264°12'.
7916 A 1720	-L'Ost~Pic (Lost Pic), on detached rock E. of Mets de Goelo	48° 46.8' N 2° 56.4' W	<b>FI.(4)W.R.</b> period 15s fl. 1s, ec. 1.5s fl. 1s, ec. 1.5s fl. 1s, ec. 1.5s fl. 1s, ec. 6.5s	66 20	W. 9 R. 6	Two white towers, red tops; 56.	W. 105°-116°, R. -221°, W. - 253°, R. -291°, W. -329°.
7920 A 1716	Le Grand Lejon	48° 45.0' N 2° 39.9' W	<b>FI.(5)W.R.</b> period 20s fl. 0.1s, ec. 2.7s fl. 0.1s, ec. 2.7s fl. 0.1s, ec. 2.7s fl. 0.1s, ec. 2.7s fl. 0.1s, ec. 8.7s	56 17	W. 18 R. 14	Red truncated conical tower, white banded; 82.	R. 15°-58°, W. -283°, R. - 350°, W. -15°.
7924 A 1714	Ile Harbor Roches de St. Quay	48° 40.0' N 2° 48.5' W	<b>FI.W.R.G.</b> period 4s	52 16	W. 9 R. 6 G. 6	White tower, red top, white dwelling; 34.	R. 11°-133°, G. -270°, R. - 306°, G. -358°, W. -11°.
7926 A 1713.55	Saint-Quay~Portrieux	48° 38.8' N 2° 49.4' W	<b>Iso.W.R.G.</b> period 4s	52 16	W. 15 R. 11 G. 11	Concrete tower; 39.	W. 159°-179°, G. -316°, W. - 320°30', R. -159°. Reserve light range 11/8/8M.
7928 A 1712	-N. mole, head	48° 38.7' N 2° 49.4' W	<b>FI.G.</b> period 2.5s fl. 0.5s, ec. 2s	36 11	2	White and green octagonal metal tower; 39.	Visible 265°-155°.
7932 A 1713	-S. mole, head	48° 38.7' N 2° 49.4' W	<b>FI.R.</b> period 2.5s fl. 0.5s, ec. 2s	26 8	2	White mast, red top; 20.	
7936 A 1710	Binic, Penthièvre Mole, head	48° 36.1' N 2° 49.0' W	<b>FI.(4)G.</b> period 15s	39 12	6	Green beacon, green triangle, point up daymark; 39.	
7940 A 1708	Le Legue, Point a l'Aigle, jetty	48° 32.1' N 2° 43.0' W	<b>V.Q.G.</b>	43 13	8	White tower, green top; 46.	Visible 160°-70°.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>FRANCE-NORTH COAST</b>							
7948 A 1704	Dahouet, Petite Muette Tower	48° 34.8' N 2° 34.3' W	<b>Fl.W.R.G.</b> period 4s fl. 1s, ec. 3s	33 10	W. 9 R. 6 G. 6	Green and white tower; 56.	G. 55°-114°, W. -146°, R. -196°, G. -331°.
7952 A 1703	Le Rohein	48° 38.8' N 2° 37.8' W	<b>Q.(9)W.R.G.</b> period 15s	43 13	W. 8 R. 5 G. 5	W. CARDINAL Yellow tower, black topmark, black banded, yellow base; 39.	R. 72°-105°, W. -180°, G. -193°, W. -237°, G. -282°, W. -301°, G. -330°, W. -72°.
7954 A 1701	-Erquy, jetty, head.	48° 38.0' N 2° 28.7' W	<b>Fl.(2)W.R.G.</b> period 6s	36 11	W. 10 R. 7 G. 7	White tower, red top; 36.	W. 81°-94°, G. -111°, W. -120°, R. -81°.
7956 A 1702	Inside jetty extremity	48° 38.1' N 2° 28.4' W	<b>Fl.(3)R.</b> period 12s	33 10	3	Red and white tower; 27.	
7960 A 1698	Cap Frehel	48° 41.0' N 2° 19.1' W	<b>Fl.(2)W.</b> period 10s fl. 0.3s, ec. 2.2s fl. 0.3s, ec. 7.2s	279 85	29	Grey square tower, green lantern; 108.	Reserve light range 15M.
7964 A 1697	St. Cast, mole, head	48° 38.4' N 2° 14.6' W	<b>Iso.W.G.</b> period 4s	36 11	W. 9 G. 6	Green and white structure; 30.	G. 180°-206°, W. -217°, G. -235°, W. -245°, G. -340°.
ST. MALO:							
7972 A 1680	-Le Buron	48° 39.3' N 2° 03.7' W	<b>Fl.(4)G.</b> period 15s fl. 1s, ec. 1.5s fl. 1s, ec. 1.5s fl. 1s, ec. 1.5s fl. 1s, ec. 6.5s	49 15	7	Green tower; 75.	
7976 A 1674	-Les Courtis	48° 40.5' N 2° 05.8' W	<b>Fl.G.</b> period 4s fl. 1s, ec. 3s	46 14	7	Green tower; 69.	
7980 A 1676	-Grand Jardin Range, front	48° 40.2' N 2° 05.0' W	<b>Fl.(2)R.</b> period 10s fl. 0.3s, ec. 2.2s fl. 0.3s, ec. 7.2s	79 24	17	Grey truncated conical tower, red top; 125.	Forms range 129°42' with La Ballue for Chenal de la Petite Porte. Forms range 89°6' with Rochebonne for Chenal de la Grande Porte.
7984 A 1676.1	--Rochebonne, rear 7.7 km. 089° from front	48° 40.3' N 1° 58.7' W	<b>F.R.</b>	131 40	24	Grey square tower, white west face, red top; 65.	Visible INTENSIFIED 88°24'-89°48'. Rear range 089°06' with 7980.
7988 A 1675	-La Plate	48° 40.8' N 2° 01.9' W	<b>Q.W.R.G.</b>	36 11	W. 10 R. 7 G. 7	N. CARDINAL Black tower, black topmark, yellow base; 72.	W. 140°-203°, R. -210°, W. -225°, G. -140°.
7996 A 1695	-Saint Briac, mouth of Le Fremur	48° 37.0' N 2° 08.2' W	<b>Dir.Iso.W.R.G.</b> period 4s	33 10	12	White post on hut; 20.	G. 121°30'-124°30', W. -125°30', R. -129°30'.
8000 A 1686	-Les Bas Sablons Range, front	48° 38.1' N 2° 01.3' W	<b>F.G.</b>	66 20	22	White square tower, black top; 62.	Visible INTENSIFIED 127°6'-130°6'. Shown 24 hours.
8004 A 1686.1	--La Ballue, rear, 1.68 km. 128°36' from front	48° 37.6' N 2° 00.2' W	<b>F.G.</b>	226 69	25	Grey square tower; 120.	Visible INTENSIFIED 128°12'-129°48'. Rear range 129°42' with 7980. Shown 24 hours.
8006 A 1673	-Saint Enogat Range, front	48° 38.3' N 2° 04.1' W	<b>Iso.W.</b> period 4s	10 3	7	White metal mast; 13.	Visible 126°-236°.
8006.1 A 1673.1	--Dinard, rear 158°12' from front	48° 37.0' N 2° 03.3' W	<b>Iso.W.</b> period 4s	279 85	10	White water tower; 109.	Visible 143°-210°. Synchronized with front.
8008 A 1682	-Mole des Noires, head	48° 38.5' N 2° 01.9' W	<b>V.Q.R.</b>	36 11	6	White pyramid tower, red top; 31.	<b>Horn:</b> 2bl. ev. 20s (bl. 3s, si. 3s, bl. 3s, si. 11s)
BAIE DU MONT SAINT MICHEL:							
8012 A 1670	-Le Herpin	48° 43.8' N 1° 48.9' W	<b>Iso.W.</b> period 4s	66 20	12	White tower, black top and base; 92.	
8016 A 1672	-La Houle~sous~Cancale, pier, head	48° 40.1' N 1° 51.1' W	<b>Oc.(3)G.</b> period 12s lt. 1.5s, ec. 1.5s lt. 1.5s, ec. 1.5s lt. 4.5s, ec. 1.5s	39 12	7	White pylon, black top, black hut; 33.	

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>FRANCE-NORTH COAST</b>							
8020 A 1654	Iles Chausey	48° 52.2' N 1° 49.4' W	<b>Fl.W.</b> period 5s fl. 0.3s, ec. 4.7s	128 39	23	Grey square tower; 62.	<b>Horn:</b> 1bl. ev. 30s (bl. 3s, si. 27s)
8024 A 1655	-La Crabiere E., 332°06'	48° 52.5' N 1° 49.4' W	<b>Dir.Oc.(3)W.R.G.</b> period 12s lt. 1.5s, ec. 1.5s lt. 1.5s, ec. 1.5s lt. 4.5s, ec. 1.5s	16 5	W. 9 R. 6 G. 6	S. CARDINAL Yellow beacon, black topmark, black base; 36.	W. 79°-291°, G. -329°, W. - 335°, R. -79°.
8028 A 1656	Le Pignon	48° 53.5' N 1° 43.4' W	<b>Fl.(2)W.R.</b> period 6s fl. 0.5s, ec. 1.5s fl. 0.5s, ec. 3.5s	33 10	W. 9 R. 6	Black tower, white banded; 65.	R. 5°-150°, W. -5°.
GRANVILLE:							
8036 A 1660	-Pointe du Roc	48° 50.1' N 1° 36.8' W	<b>Fl.(4)W.</b> period 15s fl. 0.2s, ec. 2.3s fl. 0.2s, ec. 2.3s fl. 0.2s, ec. 2.3s fl. 0.2s, ec. 7.3s	161 49	23	Grey tower, red top; 52.	
8040 A 1666	-Le Loup	48° 49.6' N 1° 36.2' W	<b>Fl.(2)W.</b> period 6s fl. 1s, ec. 1s fl. 1s, ec. 3s	26 8	11	ISOLATED DANGER Black tower, black topmark, red banded, black base; 79.	<b>Radar reflector.</b>
8044 A 1662	-W. jetty	48° 49.9' N 1° 36.3' W	<b>Fl.R.</b> period 2.5s fl. 0.5s, ec. 2s	39 12	4	Red pylon; 30.	Synchronized with E. jetty.
8048 A 1664	-E. jetty	48° 50.0' N 1° 36.2' W	<b>Fl.G.</b> period 2.5s fl. 0.5s, ec. 2s	36 11	4	White pylon, green top, on hut; 26.	Synchronized with W. jetty.
8052 A 1668	-Herel marina, jetty, head	48° 49.9' N 1° 35.9' W	<b>Fl.(2)R.</b> period 6s fl. 0.5s, ec. 1.5s fl. 0.5s, ec. 3.5s	39 12	5	White metal post, red top; 30.	Fl.(2)G. 6s shown on inner jetty. <b>Horn:</b> 2bl. ev. 40s (bl. 2s, si. 3s, bl. 2s, si. 33s)
8054 A 1649	Le Ronquet	49° 00.1' N 1° 38.1' W	<b>Fl.(2)W.R.</b> period 6s fl. 1s, ec. 1s fl. 1s, ec. 3s	36 11	W. 6 R. 4	ISOLATED DANGER Black tower, black topmark, red banded, black base.	W. 293°-100°, R. -293°.
8056 A 1650	Regneville, Pointe d'Agon	49° 00.2' N 1° 34.6' W	<b>Oc.(2)W.R.</b> period 6s lt. 1s, ec. 1s lt. 3s, ec. 1s	39 12	W. 10 R. 7	White tower, red top, dwellings; 30.	R. 63°-110°, W. -63°.
8060 A 1651	-Havre de Regneville, 028°	49° 00.6' N 1° 33.4' W	<b>Dir.Oc.W.R.G.</b> period 4s lt. 3s, ec. 1s	30 9	W. 12 R. 9 G. 9	Building; 20.	G. 24°-27°, W. -29°, R. -33°.
8064 A 1648	Le Senequet	49° 05.5' N 1° 39.8' W	<b>Fl.(3)W.R.</b> period 12s fl. 1s, ec. 1.5s fl. 1s, ec. 1.5s fl. 1s, ec. 6s	59 18	W. 9 R. 6	White tower; 85.	R. 83°30'-116°30', W. - 83°30'.
8068 A 1644	Portbail, Entrance Range, front	49° 19.7' N 1° 42.5' W	<b>Q.W.</b>	46 14	10	White pylon; 26.	
8072 A 1644.1	-Rear, 870 meters 042° from front	49° 20.1' N 1° 42.0' W	<b>Q.W.</b>	66 20	10	Belfry; 115.	
8076 A 1646	-Digue, submersible	49° 19.5' N 1° 43.0' W	<b>Fl.(2)R.</b> period 5s fl. 0.2s, ec. 0.8s fl. 0.2s, ec. 3.8s	16 5	4	White mast, red top; 23.	
8080 A 1638	Cap de Carteret	49° 22.4' N 1° 48.4' W	<b>Fl.(2+1)W.</b> period 15s fl. 0.3s, ec. 2.3s fl. 0.3s, ec. 5.9s fl. 0.3s, ec. 5.9s	266 81	26	Grey tower, green top; 57.	R. lights shown at night on radio tower 80 meters NNE.
8084 A 1640	-Carteret, W. jetty, head	49° 22.0' N 1° 47.3' W	<b>Oc.R.</b> period 4s lt. 3s, ec. 1s	23 7	7	White metal post, red top; 10.	
8088 A 1641	-Submerged breakwater, head	49° 22.2' N 1° 47.2' W	<b>Fl.G.</b> period 2.5s fl. 0.5s, ec. 2s	13 4	1	White metal post, green top; 10.	

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>FRANCE-NORTH COAST</b>							
8092 A 1632	Dielette	49° 33.2' N 1° 51.8' W	<b>Iso.W.R.G.</b> period 4s	39 12	W. 10 R. 7 G. 7	White tower, green top; 36.	G. 70°-135°, W. -145°, R. -180°.
8095 A 1513	La Foraine	49° 42.9' N 1° 58.3' W	<b>V.Q.(9)W.</b> period 10s	39 12	6	W. CARDINAL Yellow beacon, black topmark, black banded tower, yellow base; 43.	
<b>CHANNEL ISLANDS (U.K.)</b>							
JERSEY:							
8100 A 1620	-La Corbiere	49° 10.7' N 2° 15.0' W	<b>Iso.W.R.</b> period 10s	118 36	<b>W. 18</b> R. 14	White round masonry tower; 62.	W. 250°-294°, R. -328°, W. -148°, R. -250°.
8104 A 1621	-Beacon, about 815 meters 071° from Point Corbiere	49° 10.9' N 2° 14.3' W	<b>F.R.</b>		5	Red rectangular daymark white stripe.	Visible 331°-151° except where obscured by two buildings.
8108 A 1616	--Noirmont Point	49° 09.9' N 2° 10.1' W	<b>Fl.(4)W.</b> period 12s fl. 0.7s, ec. 1.5s fl. 0.7s, ec. 1.5s fl. 0.7s, ec. 1.5s fl. 0.7s, ec. 4.7s	59 18	10	Black tower, white banded; 33.	
8112 A 1614	--St. Aubin, N. pier, head	49° 11.2' N 2° 09.9' W	<b>Iso.R.</b> period 4s  <b>Dir.F.W.R.G.</b>	39 12	10	Metal column.   	   G. 248°-253°, W. -255°, R. -260°.
8116 A 1614.2	--Fort, pier, head	49° 11.2' N 2° 09.5' W	<b>Fl.R.</b> period 4s fl. 0.5s, ec. 3.5s	26 8	1		
8120 A 1604	--Elizabeth Post Range, front	49° 10.6' N 2° 06.9' W	<b>Oc.G.</b> period 5s lt. 4s, ec. 1s	33 10	11	Red lattice metal tower on dolphin.	
8124 A 1604.1	--Albert pier, rear, 230 meters 022° from front	49° 10.7' N 2° 06.9' W	<b>Oc.R.</b> period 5s lt. 4s, ec. 1s	59 18	12	Red lattice metal dolphin; 49.	Synchronized with front.
8128 A 1606	--Platte Rock	49° 10.2' N 2° 07.3' W	<b>Fl.R.</b> period 1.5s fl. 0.3s, ec. 1.2s	20 6	5	Red metal column.	
8132 A 1609	--S. end of old harbor Range, front	49° 10.7' N 2° 06.7' W	<b>F.G.</b>			White column.	
8136 A 1609.1	--Rear, 80 meters 078° from front	49° 10.7' N 2° 06.5' W	<b>F.G.</b>			White column.	
8140 A 1598	-Demie de Pas	49° 09.0' N 2° 06.2' W	<b>Mo.(D)W.R.</b> period 12s	36 11	8	Black tower, yellow top.	R. 130°-303°, W. -130°. Horn: 3bl. ev. 60s (bl. 2s, si. 2s, bl. 2s, si. 2s, bl. 2s, si. 50s).
	RACON		<b>T(-)</b> period 120s				(3 cm).
8144 A 1594	-La Greve d'Azette Range, front	49° 10.1' N 2° 05.1' W	<b>Oc.W.</b> period 5s lt. 4s, ec. 1s	75 23	14	White lattice metal structure, red rectangular daymark; 66.	Visible 34°-129°.
8148 A 1594.1	-Mont Ube, rear, 1.9 km. 082° from front	49° 10.3' N 2° 03.6' W	<b>Oc.R.</b> period 5s lt. 4s, ec. 1s	151 46	12	White lattice metal tower; 46.	Visible 250°-95°, Partially obscured 69°-74°. Reserve light.
8152 A 1588	-Gorey Range, Dir. Lt	49° 11.8' N 2° 01.3' W	<b>Oc.W.R.G.</b> period 5s lt. 4s, ec. 1s	26 8	8	White lattice metal tower; 16.	G. 228°-296°30', W. -299°30', R. -8°.
8160 A 1586	-St. Catherine Bay, Verclut, breakwater, head	49° 13.3' N 2° 00.6' W	<b>Fl.W.</b> period 1.5s fl. 0.2s, ec. 1.3s	59 18	13	White latticed tower; 30.	Unlit rear beacon.
8164 A 1584	-Sorel Point	49° 15.6' N 2° 09.5' W	<b>L.Fl.W.R.</b> period 7.5s fl. 2s, ec. 5.5s	164 50	15	White round concrete tower; 10.	W. 95°-112°, R. -173°, W. -230°, R. -269°, W. -273°.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>CHANNEL ISLANDS (U.K.)</b>							
8168 A 1585	-Bonne Nuit Bay, Range, front	49° 15.1' N 2° 07.0' W	<b>F.G.</b>	23 7	6	White column.	
8172 A 1585.1	--Rear, 170 meters 223° from front	49° 15.1' N 2° 07.2' W	<b>F.G.</b>	112 34	6	Red daymark.	
8176 A 1622	-Grosnez Point	49° 15.5' N 2° 14.8' W	<b>Fl.(2)W.R.</b> period 15s fl. 0.7s, ec. 1.5s fl. 0.8s, ec. 12s	164 50	10	White concrete building.	W. 81°-188°, R. -241°.
GUERNSEY:							
8180 A 1580	-Les Hanois	49° 26.1' N 2° 42.2' W	<b>Fl.(2)W.</b> period 13s fl. 0.1s, ec. 3.1s fl. 0.1s, ec. 9.7s	108 33	20	Grey round granite tower; 108.	Visible 294°-237°. Helicopter platform. 4 F.R. on masts 1.27 miles E. <b>Horn:</b> 2bl. ev. 60s (bl. 3s, si. 2s, bl. 3s, si. 52s)
8184 A 1548	-Platte Fougere	49° 30.8' N 2° 29.1' W	<b>Fl.W.R.</b> period 10s fl. 1.3s, ec. 8.7s	49 15	16	White octagonal tower, black banded; 82.	W. 155°-85°, R. -155°. AIS (MMSI No 992356078). <b>Horn:</b> 1bl. ec. 45s (bl. 3s, si. 42s). Also sounded if light should fail.
RACON							
<b>P(*--*)</b>							
8188 A 1548.5	-Tautenay	49° 30.1' N 2° 26.8' W	<b>Q.(3)W.R.</b> period 6s	23 7	W. 7 R. 6	Black and white beacon.	W. 50°-215°, R. -50°.
8192 A 1552	-Roustel, S. head	49° 29.2' N 2° 28.8' W	<b>Q.W.</b>	26 8	7	White lattice metal column; 26.	<b>AIS</b> (MMSI No 992356080).
8196 A 1550	-Platte	49° 29.1' N 2° 29.5' W	<b>Fl.W.R.</b> period 3s fl. 0.3s, ec. 2.7s	20 6	W. 7 R. 5	Green conical masonry tower; 30.	R. 24°-219°, W. -24°.
HERM:							
8200 A 1546.4	-Epec E	49° 28.0' N 2° 27.9' W	<b>Fl.G.</b> period 3s			Black "e" on green mast.	
8204 A 1546.6	-Vermerette V	49° 28.3' N 2° 27.8' W	<b>Fl.(2)Y.</b> period 5s			Orange "v" on beacon.	
8205 A 1546.7	-Gate Rock	49° 27.9' N 2° 27.4' W	<b>Q.(9)W.</b> period 15s			W. CARDINAL Yellow beacon, black topmark, black banded, yellow base.	
8208 A 1546	-Alligande A	49° 27.9' N 2° 28.8' W	<b>Fl.(3)G.</b> period 5s			Orange "a" on black mast.	<b>Radar reflector.</b>
8212 A 1559	-Brehon	49° 28.3' N 2° 29.3' W	<b>Iso.W.</b> period 4s	62 19	9	Beacon, round tower.	<b>AIS</b> (MMSI No 992356081).
8216 A 1557	-St. Sampson Harbor, N. pier, head	49° 29.0' N 2° 30.7' W	<b>F.G.</b>	10 3	5	Post; 7.	Visible 230°-340°.
8220 A 1558	--S. pier Range, front	49° 28.9' N 2° 30.8' W	<b>F.R.</b>	10 3	5	Post; 7.	Visible 230°-340°.
8224 A 1558.1	--Rear, 390 meters 286° from front	49° 29.0' N 2° 31.0' W	<b>F.G.</b>	43 13		Clock tower; 39.	
8228 A 1554	-St. Sampson Harbor, Crocq Pier, head	49° 29.0' N 2° 31.1' W	<b>F.R.</b>	36 11	5	Red column; 20.	Visible 250°-340°. Traffic signals.
8232 A 1560	--New Harbor Range, front	49° 27.3' N 2° 31.4' W	<b>Al.W.R.</b> period 10s	46 14	16	Dark round granite tower, white on ne face; 40.	<b>AIS</b> (MMSI No 992356082). Unintensified landward. <b>Horn:</b> 1bl. ev. 15s (bl. 2s, si. 12s)
8236 A 1560.1	--Belvedere, rear, 990 meters 220° from front	49° 26.9' N 2° 32.0' W	<b>Oc.W.</b> period 10s lt. 7.5s, ec. 2.5s	200 61	14	White tower, white square daymark; 13.	Visible 179°-269°, Visible INTENSIFIED 217°-223°.
8246 A 1567	--Fish quay, NW. head	49° 27.3' N 2° 31.8' W	<b>F.R.</b>	7 2			
8246.5 A 1567.2	--SW. head	49° 27.3' N 2° 31.9' W	<b>F.R.</b>	7 2			

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>CHANNEL ISLANDS (U.K.)</b>							
8248 A 1569	---Range, front	49° 27.4' N 2° 31.9' W	<b>Oc.R.</b> period 5s lt. 4s, ec. 1s	33 10	14	White latticed tower; 23.	
8248.5 A 1569.1	----Rear, 160 meters 265° from front	49° 27.4' N 2° 32.1' W	<b>Iso.R.</b> period 2s	72 22	3	Tall square white building.	Visible 260°-270°.
8249 A 1570	--Queen Elizabeth II Marina	49° 27.8' N 2° 31.8' W	<b>Oc.W.R.G.</b> period 3s	16 5	6		G. 258°-268°, W. -272°, R. -282°.
8252 A 1562	--White Rock Pier, head	49° 27.4' N 2° 31.6' W	<b>Oc.G.</b> period 5s lt. 4s, ec. 1s	36 11	14	Round masonry tower; 32.	Visible INTENSIFIED 174°-354°. Traffic signals.
8256 A 1574	-St. Martins Point	49° 25.3' N 2° 31.7' W	<b>FI.(3)W.R.</b> period 10s fl. 1s, ec. 1.5s fl. 1s, ec. 1.5s fl. 1s, ec. 4s	49 15	14	White concrete building, flat roof; 16.	R. 185°-191°, W. -11°, R. -61°30'. <b>Horn:</b> 3bl. ev. 30s (bl. 1s, si. 2s, bl. 1s, si. 2s, bl. 1s, si. 22s)
SARK:							
8260 A 1544	-Point Robert	49° 26.2' N 2° 20.7' W	<b>FI.W.</b> period 15s fl. 1s, ec. 14s	213 65	18	White octagonal tower.	Visible 138°-353°. <b>Horn:</b> 1bl. ev. 30s (bl. 3s, si. 27s)
8261 A 1545	-Corbet du Nez	49° 27.1' N 2° 22.2' W	<b>FI.(4)W.R.</b> period 15s	46 14	8	White wooden structure on rock; 3.	W. 57°-230° R.-057°. Wind generator close by.
8262 A 1545.5	Big Russel, Noire Pute	49° 28.2' N 2° 25.0' W	<b>FI.(2)W.R.</b> period 15s	26 8	6	Rock.	W. 220°-40°, R. -220°.
8264 A 1532	Casquets	49° 43.3' N 2° 22.6' W	<b>FI.(5)W.</b> period 30s fl. 0.1s, ec. 3.6s fl. 0.1s, ec. 3.6s fl. 0.1s, ec. 3.6s fl. 0.1s, ec. 3.6s fl. 0.1s, ec. 15.1s	121 37	18	White tower, two red bands.	Shown 24 hours. AIS (MMSI No 992351120).
RACON							
			<b>T(-)</b>			<b>25</b>	(3 & 10 cm).
8268 A 1520	CHANNEL LIGHTSHIP, W. end of Casquets traffic separation scheme	49° 54.4' N 2° 53.7' W	<b>FI.W.</b> period 15s fl. 0.3s, ec. 14.7s			<b>15</b>	Red hull, light tower amidships; 39. <b>AIS</b> (MMSI No 992351028). <b>Horn:</b> 1bl. ev. 20s (bl. 2s, si. 18s)
ALDERNEY:							
8288 A 1538	-Braye Harbor Range, front	49° 43.4' N 2° 11.9' W	<b>Q.W.</b>	26 8	9	Orange triangle, point up daymark; 7.	Visible 210°-220°.
8292 A 1538.1	--Rear, 335 meters 215° from front	49° 43.2' N 2° 12.0' W	<b>Q.W.</b>	56 17	12	Orange triangle, point up daymark; 16.	Visible 210°-220°. Synchronized with front.
8292.5 A 1538.5	--Breakwater, head	49° 43.8' N 2° 11.5' W	<b>L.FI.W.</b> period 10s fl. 2s, ec. 8s	23 7	5		
8293 A 1539	--Quay, head	49° 43.6' N 2° 11.9' W	<b>2F.R.</b> (vert.)	26 8	5		
8296 A 1537	-Chateau a l'Etoc Point	49° 43.9' N 2° 10.6' W	<b>Iso.W.R.</b> period 4s	66 20	W. 10 R. 7	Building; 66.	R. 71°6'-111°6', W. -151°6'. In line 111°4' with 8300.
8300 A 1536	-Alderney.	49° 43.7' N 2° 09.8' W	<b>FI.(4)W.</b> period 15s fl. 0.5s, ec. 1.5s fl. 0.5s, ec. 1.5s fl. 0.5s, ec. 1.5s fl. 0.5s, ec. 8.5s	121 37	12	White round tower, black banded; 105.	Visible 85°-27°. Shown 24 hours.
<b>FRANCE-NORTH COAST</b>							
8304 A 1512	Cap de la Hague	49° 43.3' N 1° 57.3' W	<b>FI.W.</b> period 5s fl. 0.1s, ec. 4.9s	157 48	<b>23</b>	Grey tower, white top; 167.	<b>Horn:</b> 1bl. ev. 30s (bl. 3s, si. 27s)
8308 A 1508	Omonville-La Rogue	49° 42.2' N 1° 50.1' W	<b>Iso.W.R.G.</b> period 4s	43 13	W. 10 R. 7 G. 7	White pylon, red top.	G. 180°-252°, W. -262°, R. -287°.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>FRANCE-NORTH COAST</b>							
8312 A 1514	La Plate (Ronde), about 3 km. 057° from Cap de la Hague Light	49° 44.0' N 1° 55.7' W	<b>Fl.(2+1)W.R.</b> period 10s fl. 0.6s, ec. 0.6s fl. 0.6s, ec. 1.8s fl. 0.6s, ec. 5.8s	36 11	W. 9 R. 6	W. CARDINAL Yellow octagonal tower, black banded, topmark; 62.	W. 115°-272°, R. -115°.
CHERBOURG:							
8320 A 1482	--Dique Ouest (Querqueville)	49° 40.3' N 1° 39.8' W	<b>Fl.(2)G.</b> period 6s fl. 1s, ec. 1s fl. 1s, ec. 3s	26 8	4	White structure, green top; 23.	
8324 A 1484	--Fort Du Homet Range, front, SW. limit, 320°18', 1835 meters from common rear	49° 39.5' N 1° 38.0' W	<b>Q.W.</b>	16 5	17	White triangle, point up daymark; 14.	Visible INTENSIFIED 137°18'- 143°18'. Storm signals on Fort du Hommet. Shown 24 hours.
8328 A 1484.1	---Gare Maritime	49° 38.8' N 1° 37.0' W	<b>Q.W.</b>	115 35	17	Grey pylon, white triangle, point up daymark; 115.	Visible INTENSIFIED 138°48'- 141°48'. Synchronized with front. Shown 24 hours.
8332 A 1480	--Fort de l'Ouest	49° 40.5' N 1° 38.9' W	<b>Fl.(3)W.R.</b> period 15s fl. 0.2s, ec. 2.8s fl. 0.2s, ec. 2.8s fl. 0.2s, ec. 8.8s	62 19	<b>W. 24 R. 20</b>	Grey tower, red top; 32.	W. 122°-355°, R. -122°. Portside buoy Fl.R. 4s 100 meters S.
8336 A 1478	--Fort Central	49° 40.4' N 1° 37.0' W	<b>V.Q.(6)+L.Fl.W.</b> period 10s	16 5	4	S. CARDINAL Yellow column, black topmark, black base; 10.	Visible 322°-32°.
8340 A 1476	--Fort de l'Est	49° 40.3' N 1° 35.9' W	<b>Iso.G.</b> period 4s	62 19	9	White pylon, green top; 27.	
8344 A 1470	--Ile Pelee	49° 40.2' N 1° 35.1' W	<b>Oc.(2)W.R.</b> period 6s lt. 1s, ec. 1s lt. 3s, ec. 1s	62 19	W. 10 R. 7	Red and white structure; 26.	W. 55°-120°, R. -55°.
8348 A 1472	-S. side of Passe Collignon	49° 39.6' N 1° 34.2' W	<b>Fl.(2)R.</b> period 6s	16 5	4	White metal post, red top; 13.	
8352 A 1486	-Jetee du Hommet Range, front, 1705 meters 357°12' from common rear	49° 39.5' N 1° 37.0' W	<b>Q.G.</b>	33 10	6	White structure, green top; 30.	
8356 A 1471.51	--Common rear, Terre-plein du Mielles	49° 39.1' N 1° 36.0' W	<b>Iso.G.</b> period 4s	52 16	10	Black column, white top, white banded; 30.	Visible INTENSIFIED 114°30'- 134°30'. Emergency light.
			<b>Q.W.</b>	52 16	13		Visible 179°18'-199°18'. Obscured when ships present.
8356.1 A 1471.5	-Jetee des Flamands E., front, 520 meters 183° 36' from common rear	49° 39.3' N 1° 35.9' W	<b>Q.W.</b>	518 158	20	Grey metal tripod; 26.	Synchronized with rear.
8364 A 1488	-Anchorage Range, front	49° 39.5' N 1° 38.5' W	<b>Q.G.</b>	36 11	10	White pylon; 33.	Visible INTENSIFIED 190°6'- 194°6'.
8368 A 1488.1	--Rear, 652 meters 192°42' from front	49° 39.2' N 1° 38.6' W	<b>Q.G.</b>	85 26	12	Green structure; 56.	Visible INTENSIFIED 189°6'- 195°6'. Synchronized with front.
8372 A 1495	--E. mole, head	49° 39.1' N 1° 36.8' W	<b>Oc.R.</b> period 4s lt. 3s, ec. 1s	30 9	4	White structure, red top; 10.	
8376 A 1498	--Gare Maritime, NE. corner	49° 38.9' N 1° 37.0' W	<b>Fl.G.</b> period 4s fl. 1s, ec. 3s	7 2	5	Green structure; 3.	
8380 A 1496	---NW. corner	49° 38.9' N 1° 37.1' W	<b>Fl.(3)R.</b> period 12s fl. 1s, ec. 1.5s fl. 1s, ec. 1.5s fl. 1s, ec. 6s	20 6	5	White column, red lantern; 20.	

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<b>FRANCE-NORTH COAST</b>							
8384 A 1498.5	--W. side	49° 38.8' N 1° 37.1' W	<b>Fl.(4)R.</b> period 15s fl. 0.5s, ec. 2s fl. 0.5s, ec. 2s fl. 0.5s, ec. 2s fl. 0.5s, ec. 7s	10 3	3	Red structure; 3.	Visible 6°-186°.
8386 A 1499.5	-Inner jetty	49° 38.7' N 1° 37.2' W	<b>Fl.(4)G.</b> period 15s fl. 0.5s, ec. 2s fl. 0.5s, ec. 2s fl. 0.5s, ec. 2s fl. 0.5s, ec. 7s	13 4	2	White pile, green top; 10.	
8388 A 1499	-Marina, pier, head	49° 38.9' N 1° 37.2' W	<b>Fl.(3)G.</b> period 12s fl. 1s, ec. 1.5s fl. 1s, ec. 1.5s fl. 1s, ec. 6s	23 7	6	Green pylon; 20.	
8392 A 1491	-Avant Port Range, front, S. side of entrance, 644 meters 087°48' from common rear	49° 39.2' N 1° 37.9' W	<b>Q.R.</b>	36 11	6	White pylon, red top; 26.	S. limit of the cruise ship turning area.
8396 A 1492	--Common rear, Bassin Napoleon	49° 39.1' N 1° 38.4' W	<b>Q.W.</b>	52 16	11	Grey pylon, white top; 46.	Visible 250°-280°. Synchronized with front. In line with N.(8400) and S.(8392).
8398 A 1493	-Inner Range, front	49° 39.1' N 1° 38.4' W	<b>V.Q.W.</b>		4	Grey lattice column.	Visible 253°-261°. Day range 1.5M.
8398.1 A 1493.1	--Rear, 257 meters 257°12' from front	49° 39.1' N 1° 38.6' W	<b>V.Q.W.</b>			Grey lattice column; 30.	Visible 253°-261°. Shown 24 hours. Day range 1.5M.
8400 A 1490	--N. side of entrance, front, 644 meters 261°18' from common rear	49° 39.2' N 1° 37.9' W	<b>Q.G.</b>	36 11	6	White pylon, green top; 26.	N. limit of the cruise ship turning area.
8404 A 1466	Le Becquet Range, front	49° 39.2' N 1° 32.8' W	<b>Oc.(3)W.</b> period 12s lt. 1.5s, ec. 1.5s lt. 1.5s, ec. 1.5s lt. 4.5s, ec. 1.5s	26 8	10	White octagonal beacon tower; 20.	Visible INTENSIFIED 183°18'-189°18'.
8408 A 1466.1	-Rear, 49 meters 186°18' from front	49° 39.2' N 1° 32.8' W	<b>Oc.(3)R.</b> period 12s lt. 1.5s, ec. 1.5s lt. 1.5s, ec. 1.5s lt. 4.5s, ec. 1.5s	43 13	7	Square tower, red octagonal top; 33.	Visible INTENSIFIED 183°18'-189°18'. Synchronized with front.
8412 A 1463	Port de Levi	49° 41.2' N 1° 28.3' W	<b>Oc.(2)W.R.G.</b> period 6s lt. 3s, ec. 1s lt. 1s, ec. 1s	23 7	7	White wall, grey structure, white lantern; 20.	G. 55°-83°, W. -105°, R. -163°.
8416 A 1462	Cap Levi	49° 41.8' N 1° 28.4' W	<b>Fl.R.</b> period 5s fl. 1s, ec. 4s	118 36	17	Grey square tower, white top; 92.	
8420 A 1458	Anse de Vicq, entrance range, front	49° 42.2' N 1° 23.9' W	<b>Iso.R.</b> period 4s	26 8	6	White pylon, red top, daymark red and white triangle, point up, daymark; 16.	
8424 A 1458.1	-Rear, 403 meters 158° from front	49° 42.0' N 1° 23.8' W	<b>Iso.R.</b> period 4s	46 14	6	White pylon, red top, daymark red and white triangle, point up, daymark; 26.	Synchronized with front.
8428 A 1454	Pointe de Barfleur	49° 41.8' N 1° 15.9' W	<b>Fl.(2)W.</b> period 10s fl. 0.2s, ec. 2.3s fl. 0.2s, ec. 7.3s	236 72	24	Grey tower, black top; 233.	
BARFLEUR:							
8432 A 1444	-Entrance Range, front	49° 40.2' N 1° 15.6' W	<b>Oc.(3)W.</b> period 12s lt. 1.5s, ec. 1.5s lt. 1.5s, ec. 1.5s lt. 4.5s, ec. 1.5s	23 7	10	White square tower; 23.	

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<b>FRANCE-NORTH COAST</b>							
8436 A 1444.1	--Rear, 288 meters 219°30' from front	49° 40.1' N 1° 15.7' W	<b>Oc.(3)W.</b> period 12s lt. 1.5s, ec. 1.5s lt. 1.5s, ec. 1.5s lt. 4.5s, ec. 1.5s	43 13	10	Grey and white tower, green top; 43.	Visible 85°-355°. Synchronized with front.
8440 A 1448	-Jetee Est, head	49° 40.4' N 1° 15.4' W	<b>Fl.R.</b> period 4s fl. 1s, ec. 3s	16 5	5	White building, red top; 13.	Synchronized.
8444 A 1450	-Jetee Ouest, head	49° 40.4' N 1° 15.5' W	<b>Fl.G.</b> period 4s fl. 1s, ec. 3s	26 8	5	White pylon, green top; 23.	
8448 A 1442	Pointe de Saire, on redoubt	49° 36.4' N 1° 13.8' W	<b>Iso.W.</b> period 4s	36 11	10	White square tower, green top; 33.	
ST. VAAST LA HOUGUE:							
8452 A 1436	-N. breakwater, head	49° 35.2' N 1° 15.6' W	<b>Iso.G.</b> period 4s	20 6	5	White metal tank, green top; 20.	
8456 A 1438	-N. Groin, SW. side of entrance	49° 35.2' N 1° 15.6' W	<b>Oc.(4)R.</b> period 12s lt. 1s, ec. 1s lt. 1s, ec. 1s lt. 1s, ec. 1s lt. 5s, ec. 1s	20 6	6	White building, red top; 20.	Visible 18°-278°.
8460 A 1434	-Jetty, head	49° 35.2' N 1° 15.4' W	<b>Oc.(2)W.R.G.</b> period 6s lt. 1s, ec. 1s lt. 3s, ec. 1s	39 12	W. 10 R. 7 G. 7	White octagonal metal tower, red top; 36.	W. UNINTENSIFIED 40°-219°, R. -237°, G. -310°, W. -350°, R. -40°, W. -219°.
8464 A 1428	La Hougue Range, front	49° 34.2' N 1° 16.3' W	<b>Oc.W.</b> period 4s lt. 3s, ec. 1s	30 9	10	White pylon, green top; 23.	Obscured 333°-212°.
8468 A 1428.1	-Rear, 3.2 km 267° from front	49° 34.2' N 1° 19.0' W	<b>Oc.(4)W.R.G.</b> period 12s lt. 1s, ec. 1s lt. 1s, ec. 1s lt. 1s, ec. 1s lt. 5s, ec. 1s	295 90	W. 11 R. 8 G. 8	White octagonal tower, green top; 43.	W. 195°-298°, G. -314°, W. -319°, G. -331°, Obscured -195°. Synchronized with front.
ILES ST. MARCOUF:							
8472 A 1424	-Ile du Large, on fort	49° 29.9' N 1° 08.8' W	<b>V.Q.(3)W.</b> period 5s	59 18	8	Grey square tower, green top; 56.	
8484 A 1412	Isigny	49° 19.5' N 1° 06.8' W	<b>Dir.Q.W.R.G.</b>	23 7	9	White post; 23.	G. 170°30'-171°30', W. -173°, R. -174°.
8492 A 1410	La Maresquerie	49° 23.1' N 1° 02.8' W	<b>Oc.W.</b> period 4s lt. 3s, ec. 1s	92 28	12	White post; 39.	Visible 90°-270°.
8496 A 1411	-Entrance Range, front	49° 23.4' N 1° 02.8' W	<b>Dir.Q.W.</b>	30 9	15	White metal post, red top, platform; 23.	Visible 144°30'-147°30'.
8500 A 1411.1	--Rear, 102 meters 146° from front	49° 23.4' N 1° 02.8' W	<b>Dir.Q.W.</b>	39 12	15	White mast, red top, red daymark; 36.	Visible 144°30'-147°30'.
8504 A 1408	Grandcamp-les-Bains, E. jetty, head	49° 23.5' N 1° 03.0' W	<b>Oc.(2)R.</b> period 6s lt. 1s, ec. 1s lt. 3s, ec. 1s	30 9	9	White column, red top; 26.	
8508 A 1409	-W. jetty, head	49° 23.5' N 1° 03.0' W	<b>Fl.G.</b> period 4s fl. 1s, ec. 3s	30 9	6	White column, green top; 46.	
8512 A 1406	-Perre	49° 23.3' N 1° 02.5' W	<b>Oc.W.</b> period 4s lt. 3s, ec. 1s	26 8	12	Green pylon, white hut; 23.	Visible 83°-263°.
8516 A 1400	Port en Bessin Range, front	49° 21.0' N 0° 45.5' W	<b>Oc.(3)W.</b> period 12s lt. 1.5s, ec. 1.5s lt. 1.5s, ec. 1.5s lt. 4.5s, ec. 1.5s	82 25	10	White pylon, green top; 24.	Visible 69°-339°.
8520 A 1400.1	-Rear, 93 meters 204° from front	49° 20.9' N 0° 45.6' W	<b>Oc.(3)W.</b> period 12s lt. 1.5s, ec. 1.5s lt. 1.5s, ec. 1.5s lt. 4.5s, ec. 1.5s	138 42	14	Grey and white building; 16.	Visible 114°-294°. Synchronized with front.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>FRANCE-NORTH COAST</b>							
PORT-EN-BESSIN:							
8524 A 1403	-Jetee Est	49° 21.1' N 0° 45.4' W	<b>Oc.R.</b> period 4s lt. 3s, ec. 1s	46 14	7	Red pylon; 33.	
8528 A 1404	-Jetee Ouest	49° 21.2' N 0° 45.4' W	<b>FI.W.G.</b> period 4s fl. 1s, ec. 3s	43 13	W. 8 G. 5	Green pylon; 30.	G. 65°-114°30', W. -65°.
8532 A 1396	Pointe de Ver	49° 20.4' N 0° 31.1' W	<b>FI.(3)W.</b> period 15s fl. 0.2s, ec. 2.8s fl. 0.2s, ec. 2.8s fl. 0.2s, ec. 8.8s	138 42	26	White tower, grey top; 43.	
8540 A 1390	-Jetee Est, head	49° 20.3' N 0° 27.4' W	<b>Oc.(2)R.</b> period 6s lt. 1s, ec. 1s lt. 3s, ec. 1s	30 9	7	Brown pylon, red top; 23.	
8544 A 1391	-Jetee Ouest, submerged	49° 20.4' N 0° 27.4' W	<b>Iso.W.G.</b> period 4s	23 7	W. 9 G. 6	Brown pylon, green top, on dolphin; 46.	W. 135°-235°, G. -135°.
8552 A 1377	Oouistreham, main	49° 16.8' N 0° 14.9' W	<b>Oc.W.R.</b> period 4s lt. 3s, ec. 1s	121 37	W. 17 R. 13	White tower, red top; 118.	W. 90°-115°, R. -151°, W. -90°. Storm signal lights are shown from tower.
8556 A 1378	-Saint Medard	49° 18.0' N 0° 14.6' W	<b>Q.R.</b>	23 7	5	White pylon, red top; 56.	Q.R. shown 175 meters W. Fl.R. 4s 9m 3M and Fl.G. 4s 9m 3M mark channel 550 meters S.
8560 A 1379	-Jetee Ouest, head	49° 17.6' N 0° 14.8' W	<b>FI.(2)G.</b> period 6s fl. 1s, ec. 1s fl. 1s, ec. 3s	36 11	3	White pipe, green top, platform; 52.	<b>Radar reflector.</b>
8568 A 1381	-E. jetty, head, range, front	49° 17.1' N 0° 14.8' W	<b>Oc.(1+2)R.</b> period 12s lt. 4.5s, ec. 1.5s lt. 1.5s, ec. 1.5s lt. 1.5s, ec. 1.5s	36 11	17	White metal post, red top; 33.	Visible INTENSIFIED 183°30' - 186°30'. Q.R. 30 meters WSW. Shown 24 hours. <b>Radar reflector.</b>
8572 A 1381.1	--Rear, 610 meters 184°30' from front	49° 16.8' N 0° 14.8' W	<b>Oc.(1+2)R.</b> period 12s lt. 4.5s, ec. 1.5s lt. 1.5s, ec. 1.5s lt. 1.5s, ec. 1.5s	98 30	18	Tripod; 93.	Visible INTENSIFIED 183°30' - 186°30'. Synchronized with front. Shown 24 hours.
TROUVILLE:							
8584 A 1284	-Jetee Ouest, head	49° 22.0' N 0° 04.4' E	<b>Q.G.</b>	36 11	9	White metal tower, green top; 33.	
8588 A 1282.2	-Jetee Est, submerged, head	49° 22.2' N 0° 04.3' E	<b>FI.(4)W.R.</b> period 12s fl. 1s, ec. 1s fl. 1s, ec. 1s fl. 1s, ec. 1s fl. 1s, ec. 5s	26 8	W. 7 R. 4	White pylon, red top; 49.	W. 131°-175°, R. -131°.
8592 A 1282	-Jetee Ouest	49° 22.4' N 0° 04.1' E	<b>FI.W.G.</b> period 4s fl. 1s, ec. 3s	33 10	W. 9 G. 6	Black pylon, green top; 52.	W. 5°-176°, G. -5°.
8596 A 1285	-Nouveau mole, 0.3 meters SE. of jetty, W. head	49° 22.1' N 0° 04.3' E	<b>Iso.G.</b> period 4s	30 9	5	Green mast; 23.	
8600 A 1283	-Entrance Range, front	49° 22.0' N 0° 04.5' E	<b>Oc.R.</b> period 4s lt. 3s, ec. 1s	36 11	12	White metal tower, red top; 36.	Visible 330°-150°.
8604 A 1283.1	--Rear, 217 meters 148° from front, La Cahotte	49° 21.9' N 0° 04.6' E	<b>Oc.R.</b> period 4s	56 17	10	White pylon, red top; 49.	Visible 120°-170°. Synchronized with front.
SEINE ESTUARY:							
8608	-LHA	49° 31.4' N 0° 09.9' W	<b>Mo.(A)W.</b> period 12s	20 6	6	SAFE WATER White superbuoy, topmark, red vertical stripes; 23.	AIS (MMSI No 992271201).

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>FRANCE-NORTH COAST</b>							
	RACON		()		8		RACON signal appears as a series of 8 dots or 8 groups of dots.(3 & 10 cm).
8612 A 1286	--Digue de Ratier A, W. extremity of new dike	49° 25.9' N 0° 06.6' E	<b>V.Q.W.</b>	33 10	4	Metal column, shelter, black platform; 33.	<b>Radar reflector.</b>
8616 A 1290	--Falaise des Fonds	49° 25.5' N 0° 12.9' E	<b>Fl.(3)W.R.G.</b> period 12s fl. 1s, ec. 1.5s fl. 1s, ec. 1.5s fl. 1s, ec. 6s	49 15	<b>W. 17</b> R. 13 G. 13	White tower, green top; 59.	G. 40°-80°, R. -84°, G. -100°, W. -109°, R. -162°, G. -260°.
8618 A 1289	-Digue de Ratier	49° 25.7' N 0° 12.7' E	<b>V.Q.(9)W.</b> period 10s	52 16	6	Pylon, two triangular daymarks, points together; 30.	
8620 A 1296	--Digue Ouest, head	49° 25.7' N 0° 13.8' E	<b>Q.G.</b>	33 10	6	Green pylon; 33.	
8628 A 1256	-Cap de la Heve	49° 30.7' N 0° 04.2' E	<b>Fl.W.</b> period 5s fl. 0.1s, ec. 4.9s	404 123	<b>24</b>	White octagonal tower, red top; 105.	Visible 225°-196°. F.R.(horiz.) on belfry 3.2 nautical miles NE. 3Fl.R. on radar tower 0.1 nautical miles SSW.
LE HAVRE:							
8632 A 1260	-Munier Quai d'Escale Range, front	49° 28.9' N 0° 06.5' E	<b>F.W.</b>	118 36	<b>24</b>	Grey tower, green top; 115.	Visible INTENSIFIED 105°48'-107°48'. Shown 24 hours. Varying intensity by day.
8636 A 1260.1	--Rear, 1370 meters 106°48' from front	49° 28.7' N 0° 07.6' E	<b>F.W.</b>	256 78	<b>24</b>	Grey tower, green top; 253.	Visible INTENSIFIED 105°48'-107°48'. Shown 24 hours. Varying intensity by day. <b>Radar reflector.</b>
8648 A 1262	-Digue Nord, outer head	49° 29.2' N 0° 05.4' E	<b>Fl.R.</b> period 4s	49 15	8	White tower, red top; 36.	Synchronized with 8656. Shown by day in fog, synchronized with horn. <b>Horn:</b> 1bl. ev. 15s (bl. 3s, si. 12s)
8652 A 1266	-Yacht basin	49° 29.3' N 0° 05.6' E	<b>Fl.(2)G.</b> period 6s	16 5	2	White post, green top; 10.	
8656 A 1264	-Digue Sud, outer head	49° 29.1' N 0° 05.4' E	<b>Fl.G.</b> period 4s	49 15	8	White tower, green top; 46.	
8660 A 1274	--N. mole, SW. spur, Bassin Ducrocq	49° 28.8' N 0° 06.3' E	<b>Oc.(2)R.</b> period 6s lt. 1s, ec. 1s lt. 3s, ec. 1s	23 7	6	White structure, red top; 16.	<b>Radar reflector.</b>
8664 A 1274.4	--S. mole	49° 28.8' N 0° 06.2' E	<b>Oc.(2)G.</b> period 6s lt. 1s, ec. 1s lt. 3s, ec. 1s	23 7	6	White structure, green top; 16.	<b>Radar reflector.</b>
8668 A 1276	--Oil Basin No 1 Range, front	49° 28.4' N 0° 06.8' E	<b>F.G.</b>				Visible 145°6'-161°6'.
8672 A 1276.1	--Rear, 140 meters 153°06' from front	49° 28.3' N 0° 06.9' E	<b>F.G.</b>				Visible 145°6'-161°6'.
8676 A 1277	--Oil Basin No 2 Range, front	49° 28.3' N 0° 07.1' E	<b>F.G.</b>				Visible 146°-162°.
8680 A 1277.1	--Rear, 60 meters 153°42' from front	49° 28.2' N 0° 07.2' E	<b>F.G.</b>				Visible 146°-162°.
8684 A 1278	--S. side of basin, Range, front	49° 28.2' N 0° 07.2' E	<b>F.R.</b>	23 7			Visible 160°48'-176°48'.
8688 A 1278.1	--Rear, about 60 meters 168°48' from front	49° 28.2' N 0° 07.2' E	<b>F.R.</b>	26 8			Visible 160°48'-176°48'.
8692 A 1279	--Oil Basin No 3 Range, front	49° 28.2' N 0° 07.5' E	<b>F.G.</b>	26 8	23.		Visible 132°48'-148°48'.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>FRANCE-NORTH COAST</b>							
8696 A 1279.1	--Rear, 46 meters 140°48' from front	49° 28.2' N 0° 07.6' E	<b>F.G.</b>	36 11		30.	Visible 132°48'-148°48'.
8700 A 1274.6	--Dir. Lt	49° 28.4' N 0° 06.9' E	<b>Dir.Oc.W.R.G.</b> period 4s lt. 3s, ec. 1s	49 15	W. 11 R. 10 G. 10	White structure, green top; 43.	G. 183°-190°, W. -194°, R. - 201°. Shown 24 hours.
8702 A 1280.7	--Digue Charles Laroch	49° 28.1' N 0° 08.3' E	<b>Dir.Oc.W.R.G.</b> period 4s lt. 3s, ec. 1s	26 8	W. 12 R. 11 G. 11	White pyramidal tower, green top; 20.	G. 118°-119°, W. -120°, R. - 121°. Shown 24 hours.
ANTIFER TERMINAL:							
8704 A 1250.8	-Harbor Approach	49° 39.5' N 0° 09.2' E	<b>Oc.W.R.G.</b> period 4s lt. 3s, ec. 1s	79 24	<b>W. 15</b> R. 13 G. 13	White pylon, black top; 66.	G. 68°18'-78°18'. W. - 88°18', R. -98°18'.
8708 A 1251.84	-Maurice Thieullent Digue (main breakwater), head	49° 39.7' N 0° 07.1' E	<b>Q.R.</b>	66 20	7	White structure, red banded; 56.	
8712 A 1251.62	--NW. angle	49° 40.2' N 0° 07.4' E	<b>F.Vi.</b>	49 15	5	White pylon, purple top; 26.	
8716 A 1251.6	--NE. angle	49° 40.2' N 0° 08.2' E	<b>F.Vi.</b>	49 15	5	White pylon, purple top; 26.	
8720 A 1251.7	--Berth 2	49° 40.2' N 0° 08.1' E	<b>Oc.(2)W.R.G.</b> period 6s lt. 1s, ec. 1s lt. 3s, ec. 1s	79 24	<b>W. 15</b> R. 13 G. 13	White pylon, red top; 56.	R. 0°-3°, R. 337°-347°, G. - 357°, W. -0°.
8724 A 1251.8	--Berth 3	49° 40.2' N 0° 07.7' E	<b>Oc.W.R.G.</b> period 4s lt. 3s, ec. 1s	7 2	W. 12 R. 8 G. 8	White pylon, red top; 7.	G. 3°-13°, R. -23°, R. 357°- 360°, W. -3°. Emergency light. Fl.(2)Bu. on each of the four docking dolphins.
8727 A 1250.2	Antifer approach range, front	49° 38.3' N 0° 09.1' E	<b>Oc.W.</b> period 4s lt. 3s, ec. 1s	371 113	<b>26</b>	White pylon, green top; 28.	Visible INTENSIFIED 126°30'- 128°30'. Synchronized with 8727.1. Shown 24 hours. Day range 6M.
8727.1 A 1250.21	-Rear, 430 meters 127°30' from front	49° 38.2' N 0° 09.4' E	<b>Oc.W.</b> period 4s	443 135	<b>26</b>	White pylon, green top; 48.	Visible INTENSIFIED 126°30'- 128°30'. Synchronized with 8727. Range 6M by day.
CHENAL D'ANTIFER:							
8728 A 1251	-Bassin de Caux, Mole Ouest, head	49° 39.0' N 0° 08.8' E	<b>Fl.R.</b> period 4s fl. 1s, ec. 3s	43 13	5	White mast, red top; 26.	
8732 A 1251.4	--Jeteo Est, head	49° 39.0' N 0° 08.9' E	<b>Fl.G.</b> period 4s fl. 1s, ec. 3s	43 13	5	White mast, green top; 26.	
8736 A 1251.2	--Leading, 018°30'	49° 39.2' N 0° 09.0' E	<b>Oc.W.R.G.</b> period 4s lt. 3s, ec. 1s	36 11	W. 12 R. 8 G. 8	Pylon; 16.	G. 6°30'-17°30', W. -19°30', R. -36°30'.
8740 A 1250	Cap d'Antifer	49° 41.0' N 0° 09.9' E	<b>Fl.W.</b> period 20s fl. 0.5s, ec. 19.5s	420 128	<b>29</b>	Grey octagonal tower, green top; 125.	
8744 A 1248	Yport Range, front	49° 44.4' N 0° 18.5' E	<b>Oc.W.</b> period 4s lt. 3s, ec. 1s	33 10		White post, white circle daymark; 23.	
8748 A 1248.1	-Rear, 58 meters 166° from front	49° 44.4' N 0° 18.6' E	<b>Oc.W.</b> period 4s lt. 3s, ec. 1s	46 14		White pylon on hut, white circle daymark; 20.	
8750 A 1247	Measuring mast	49° 50.9' N 0° 13.1' E	<b>Mo.(U)W.</b> period 15s	43 13	10	Grey pylon on yellow platform; 197.	AIS (MMSI No 992271122).
			<b>F.R.</b>	118 36			Horn(U) 30s.
			<b>U.Q.W.R.</b>	197 60			

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<b>FRANCE-NORTH COAST</b>							
8752 A 1244	Fecamp	49° 45.9' N 0° 21.8' E	<b>Fl.(2)W.</b> period 6s	49 15	12	Grey tower, red top; 46.	
8755 A 1245	Pilot Range, front	49° 46.0' N 0° 21.7' E	<b>Q.R.</b>	33 10	4	White metal post, red circle daymark; 23.	
8756 A 1246	-Rear, about 222 meters 082° from front	49° 45.9' N 0° 21.9' E	<b>Q.G.</b>	46 14	9	Grey tower, green top; 33.	Visible 250°-217°.
8760 A 1238	St. Valery en Caux	49° 52.4' N 0° 42.5' E	<b>Fl.(2)G.</b> period 6s fl. 1s, ec. 1s fl. 1s, ec. 3s	39 12	11	Green truncated conical tower; 39.	
8764 A 1239	-Jetee Est, head	49° 52.4' N 0° 42.7' E	<b>Fl.(2)R.</b> period 6s fl. 1s, ec. 1s fl. 1s, ec. 3s	20 6	5	White mast, red top; 20.	
8768 A 1234	Pointe d'Ailly	49° 55.0' N 0° 57.5' E	<b>Fl.(3)W.</b> period 20s fl. 0.1s, ec. 3.9s fl. 0.1s, ec. 3.9s fl. 0.1s, ec. 11.9s	312 95	31	White square tower, green top; 79.	
DIEPPE:							
8776 A 1230	-Jetee Ouest	49° 56.3' N 1° 05.0' E	<b>Iso.G.</b> period 4s	36 11	8	Grey tower, green top; 30.	Synchronized with 8782 and 8788.
8782 A 1233	-La Morgue	49° 55.9' N 1° 05.2' E	<b>Q.R.</b>	39 12	3	Red column; 26.	Synchronized with 8776.
8784 A 1232.1	-Falaise du Pollet	49° 55.9' N 1° 05.3' E	<b>Q.W.</b>	115 35	11	Red and white structure; 13.	Visible 105°30'-170°30'.
8788 A 1228	-Jetee Est, head	49° 56.2' N 1° 05.1' E	<b>Iso.R.</b> period 4s	39 12	8	White metal tower, red top; 33.	Synchronized with 8776.
LE TREPORT:							
8792 A 1222	-Jetee Ouest	50° 03.9' N 1° 22.1' E	<b>Fl.(2)G.</b> period 10s fl. 0.4s, ec. 2.1s fl. 0.4s, ec. 7.1s	49 15	20	White tower, green top; 46.	
8796 A 1224	-Jetee Est, head	50° 03.9' N 1° 22.2' E	<b>Oc.R.</b> period 4s lt. 3s, ec. 1s	26 8	6	White column, red top; 20.	
8797 A 1226	-Jetty, W. head	49° 58.8' N 1° 12.2' E	<b>Fl.(4)Y.</b> period 15s				
8800 A 1220	Ault	50° 06.3' N 1° 27.2' E	<b>Oc.(4)W.R.</b> period 12s lt. 1s, ec. 1s lt. 1s, ec. 1s lt. 1s, ec. 1s lt. 5s, ec. 1s	312 95	<b>W. 15</b> R. 11	White truncated conical tower, red top; 98.	W. 40°-175°, R. -220°.
BAIE DE SOMME:							
8804 A 1208	-Cayeux-sur-Mer	50° 11.6' N 1° 30.7' E	<b>Fl.R.</b> period 5s fl. 0.3s, ec. 4.7s	105 32	22	White tower, red top; 105.	
8808 A 1210	-Le Hourdel, S. side of entrance	50° 12.9' N 1° 34.0' E	<b>Oc.(3)W.G.</b> period 12s lt. 1.5s, ec. 1.5s lt. 1.5s, ec. 1.5s lt. 4.5s, ec. 1.5s	62 19	<b>W. 12</b> G. 9	White tower, green top; 59.	W. 53°-248°, G. -323°. <b>Horn:</b> 3bl. ev. 30s (bl. 2s, si. 3s, bl. 2s, si. 18s)
8812 A 1211	-Le Crotoy, N. side of entrance	50° 12.9' N 1° 37.4' E	<b>Oc.(2)R.</b> period 6s lt. 1s, ec. 1s lt. 3s, ec. 1s	62 19	8	White pyramidal pylon; 36.	Visible 285°-135°.
8816 A 1215	-St. Valery sur Somme, extremity of seawall	50° 12.3' N 1° 35.9' E	<b>Fl.G.</b> period 2.5s	7 2	1	STARBOARD (IALAA) Green pylon, topmark; 20.	<b>Radar reflector.</b>
8820 A 1214	--. side of entrance	50° 11.5' N 1° 37.6' E	<b>Iso.G.</b> period 4s	30 9	9	White pylon, green top; 23.	Visible 347°-222°.

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<b>FRANCE-NORTH COAST</b>							
8824 A 1216	--Seaward dike, head	50° 11.2' N 1° 38.6' E	<b>FI.R.</b> period 4s fl. 1s, ec. 3s	30 9	9	White pylon, red top; 21.	Visible 0°-250°.
8828 A 1202	Berck Plage	50° 23.9' N 1° 33.6' E	<b>FI.W.</b> period 5s fl. 0.4s, ec. 4.6s	144 44	23	White tower, red banded, green top; 148.	
8832 A 1196	Le Touquet	50° 31.4' N 1° 35.5' E	<b>FI.(2)W.</b> period 10s fl. 0.5s, ec. 2s fl. 0.5s, ec. 7s	177 54	25	Orange octagonal tower, brown banded, white and green top; 184.	
8840 A 1194	Camiers	50° 32.9' N 1° 36.4' E	<b>Oc.(2)W.R.G.</b> period 6s lt. 1s, ec. 1s lt. 3s, ec. 1s	56 17	W. 10 R. 7 G. 7	Red pylon; 26.	G. 15°-90°, W. -105°, R. - 141°.
8844 A 1190	Cap d'Alprech	50° 41.9' N 1° 33.8' E	<b>FI.(3)W.</b> period 15s fl. 0.1s, ec. 2.9s fl. 0.1s, ec. 2.9s fl. 0.1s, ec. 8.9s	203 62	23	White tower, black top; 63.	
BOULOGNE:							
8856 A 1168	-Dique Nord, head	50° 44.7' N 1° 34.2' E	<b>FI.(2)R.</b> period 6s fl. 1s, ec. 1s fl. 1s, ec. 3s	33 10	7	Red metal tower; 13.	
8860 A 1170	-Dique Sud Carnot	50° 44.4' N 1° 34.1' E	<b>FI.(2+1)W.</b> period 15s fl. 0.1s, ec. 2.5s fl. 0.1s, ec. 6.1s fl. 0.1s, ec. 6.1s	82 25	19	White tower, green top; 72.	Reserve light.
8864 A 1172	-Ro Ro Berths Range, front	50° 43.6' N 1° 34.0' E	<b>F.G.</b>	52 16	8	Dolphin; 20.	Visible 107°-287°.
8868 A 1172.1	--Rear, 488 meters 197° from front	50° 43.3' N 1° 33.9' E	<b>F.R.</b>	75 23	13	Red post, white banded; 49.	Visible INTENSIFIED188°- 206°.
<b>FRANCE-NORTH SEA</b>							
8872 A 1174	-Darse Sarraz~Bournet	50° 43.6' N 1° 34.7' E	<b>Oc.(2)R.</b> period 6s lt. 1s, ec. 1s lt. 3s, ec. 1s	26 8	6	White pylon, red top; 23.	
8876 A 1175	--W. side of entrance	50° 43.7' N 1° 34.5' E	<b>Iso.G.</b> period 4s	26 8	5	White pylon, green top; 23.	
8880 A 1182	-Gare Maritime Range, front	50° 43.7' N 1° 35.7' E	<b>F.G.</b>	13 4	5	Grey octagonal pylon, green top, lighted triangle, point down daymark; 30.	Visible 33°-213°.
8884 A 1182.1	--Rear, center of Quai Gambetta, 560 meters 122°24' from front	50° 43.5' N 1° 36.1' E	<b>F.R.</b>	144 44	11	Grey building, red top; 141.	Visible INTENSIFIED113°- 133°.
8888 A 1180	-Jetee SW. head	50° 43.9' N 1° 35.1' E	<b>Q.G.</b>	56 17	5	White column, green top; 43.	
8892 A 1178	-Jetee NE. head	50° 43.9' N 1° 35.2' E	<b>Q.R.</b>	36 11	7	Red metal tower; 26.	
8896 A 1166	Cap Gris Nez	50° 52.1' N 1° 35.0' E	<b>FI.W.</b> period 5s fl. 0.4s, ec. 4.6s	236 72	29	White tower, black top; 115.	
8900 A 1160	Sangatte	50° 57.2' N 1° 46.5' E	<b>Oc.W.G.</b> period 4s lt. 3s, ec. 1s	43 13	W. 8 G. 5	White pylon, green top; 30.	G. 65°-89°, W. -152°, G. - 245°.
CALAIS:							
8904 A 1144	-Calais	50° 57.7' N 1° 51.2' E	<b>FI.(4)W.</b> period 15s fl. 0.4s, ec. 2.1s fl. 0.4s, ec. 2.1s fl. 0.4s, ec. 2.1s fl. 0.4s, ec. 7.1s	194 59	22	White octagonal tower, black top; 181.	

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>FRANCE-NORTH SEA</b>							
8908 A 1146	-Jetee Est	50° 58.4' N 1° 50.5' E	<b>Q.(9)W.</b> period 15s	39 12	10	White round tower on smooth masonry building; 23.	2 Fl.(2)W. 6s (vert.) shown in fog by request. <b>Radar reflector.</b> Horn: 2bl. ev. 40s (bl. 2s, si. 3s, bl. 2s, si. 33s)
8912 A 1148	-Jetee Ouest, head	50° 58.2' N 1° 50.4' E	<b>Iso.G.</b> period 3s	39 12	9	Metal tower, green top; 39.	Fl.W. 5s shown in fog by request. <b>Bell:</b> 1 strokes ev. 5s
8913 A 1157	-Quai de Maree	50° 58.1' N 1° 50.9' E	<b>L.FI.(4)W.</b> period 30s			Grey post; 26.	<b>Horn:</b> 4bl. ev. 30s (bl. 3s, si. 3s, bl. 3s, si. 3s, bl. 3s, si. 9s)
GRAVELINES:							
8924 A 1132.2	-Jetee Est, head	51° 00.9' N 2° 05.6' E	<b>FI.(3)R.</b> period 12s fl. 1s, ec. 1.5s fl. 1s, ec. 1.5s fl. 1s, ec. 6s	30 9	4	Grey and yellow tower, red top; 16.	V.Q.W. 6m 2M marks head of submerged jetty close NNW.
8928 A 1132	-Jetee Ouest, head	51° 00.9' N 2° 05.5' E	<b>FI.(2)W.G.</b> period 6s fl. 1s, ec. 1s fl. 1s, ec. 3s	30 9	4	Yellow and grey tower, green top; 49.	W. 85°-224°, G. -85°.
LE SANDETTIE:							
8932 A 0994	-SANDETTIE LIGHTSHIP	51° 09.4' N 1° 47.1' E	<b>FI.W.</b> period 5s fl. 0.5s, ec. 4.5s		15	Red hull, light tower amidships.	Shown 24 hours. AIS (MMSI No 992357029). Shown 24 hours. Horn: 1bl. ev. 30s (bl. 3s, si. 27s).
RACON			<b>T(-)</b>				(3 & 10 cm).
NOUVEAU PORT OUEST DE DUNKERQUE:							
8948 A 1126	-Avant-port Range, front	51° 01.7' N 2° 11.9' E	<b>Dir.FI.W.</b> period 4s	49 15	20	White column, green top; 29.	Visible 116°-124°. <b>Radar reflector.</b>
8952 A 1126.1	--Rear, 600 meters 120° from front	51° 01.5' N 2° 12.4' E	<b>Dir.FI.W.</b> period 4s	95 29	20	White column, green top, green banded; 66.	Visible 116°-124°.
8956 A 1127	-Jetee du Dyck, head	51° 02.3' N 2° 09.8' E	<b>FI.(4)G.</b> period 15s fl. 0.5s, ec. 2s fl. 0.5s, ec. 2s fl. 0.5s, ec. 2s fl. 0.5s, ec. 7s	79 24	10	White column, green top; 75.	Various lights are shown in the inside of the port.
8960 A 1127.4	-Jetee du Clipon	51° 02.6' N 2° 09.8' E	<b>FI.(4)R.</b> period 15s fl. 1s, ec. 1.5s fl. 1s, ec. 1.5s fl. 1s, ec. 1.5s fl. 1s, ec. 6.5s	82 25	10	White column, red top; 75.	Visible 278°-243°.
			<b>FI.(4)W.</b> period 15s	75 23	20		Shown in fog.
8961 A 1129	-Atlantic Basin, E. jetty	51° 01.4' N 2° 10.5' E	<b>Iso.R.</b> period 4s	49 15	6	Metal post on hut; 11.	
8962 A 1129.2	--W. jetty	51° 01.3' N 2° 10.2' E	<b>Iso.G.</b> period 4s	49 15	6	Metal post on hut; 1.	The access channel to the W. heavy goods quay is marked by a guide light and luminous buoys.
8963 A 1127.6	-164°42'	51° 00.0' N 2° 10.8' E	<b>Dir.Oc.(2)W.</b> period 6s	39 12	17	Beacon, red square daymark white vertical band.	Visible 160°42'-168°42'.
DUNKERQUE:							
8964 A 1114	-Dunkerque	51° 02.9' N 2° 21.9' E	<b>FI.(2)W.</b> period 10s fl. 0.1s, ec. 2.4s fl. 0.1s, ec. 7.4s	194 59	26	White tower, black top; 193.	
8968 A 1114.9	-Range, front, 640 meters 05° from rear	51° 03.1' N 2° 21.1' E	<b>F.Vi.</b>	33 10	3	White column, red top; 20.	Visible INTENSIFIED 183°-187°.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>FRANCE-NORTH SEA</b>							
8972 A 1115	--Common rear	51° 02.8' N 2° 21.1' E	<b>F.VI.</b>	79 24	4	Grey pylon; 81.	Visible INTENSIFIED 183°48'- 186°12', Visible INTENSIFIED 178°12'- 180°48'.
8976 A 1115.1	-Range, front, 660 meters 359°30' from rear	51° 03.1' N 2° 21.1' E	<b>F.VI.</b>	33 10	3	White column, green top; 20.	Visible INTENSIFIED 177°30'- 181°30'.
8979 A 112	-Chenal de Trystram Range, front	51° 03.0' N 2° 22.0' E	<b>Q.W.</b>	23 7	11	White column, red top; 16.	Visible 122°-152°.
8979.5 A 1120.1	--Rear, 114 meters 137°30' from front	51° 02.9' N 2° 22.1' E	<b>Q.W.</b>	33 10	11	White column, red top; 26.	Visible 122°-152°. Synchronized with front.
8980 A 1122	-Jetee Watier, head	51° 03.2' N 2° 21.2' E	<b>FI.(3)G.</b> period 12s fl. 1s, ec. 1.5s fl. 1s, ec. 1.5s fl. 1s, ec. 6s	36 11	6	Green pylon; 52.	
8984 A 1123	-Jetee Charles de Gaulle	51° 03.3' N 2° 20.8' E	<b>FI.G.</b> period 4s fl. 1s, ec. 3s  <b>Q.W.</b>	33 10  30 9	6  <b>15</b>	White tower, green top; 23.	Visible 200°-80°. Shown on request or in reduced visibility, day and night.
8988 A 1121	-Ancienne Jetty, W	51° 03.3' N 2° 21.4' E	<b>Q.W.</b>	36 11	9	N. CARDINAL Hut, yellow pylon on hut, black top, black daymark; 46.	
8992 A 1118	-Jetee Ouest, head	51° 03.6' N 2° 21.0' E	<b>FI.(2)G.</b> period 6s fl. 1s, ec. 1s fl. 1s, ec. 3s	115 35	10	Masonry tower, brown top; 118.	Synchronized with 8996.
8996 A 1116	-Musoir, Jette Est, head	51° 03.6' N 2° 21.2' E	<b>FI.(2)R.</b> period 6s fl. 1s, ec. 1s fl. 1s, ec. 3s	39 12	10	White pylon, red top; 26.	Synchronized with 8992.
<b>BELGIUM-NORTH SEA</b>							
WEST HINDER-A1 ROUTE:							
9000 B 0145	-Westhinder	51° 23.3' N 2° 26.3' E	<b>FI.(4)W.</b> period 30s fl. 0.5s, ec. 0.5s fl. 0.5s, ec. 0.5s fl. 0.5s, ec. 0.5s fl. 0.5s, ec. 26.5s	75 23	13	Red post, hut, vertical reflective "westhinder" inscription.	Horn: Mo.(U ) ev. 30s.
RACON			<b>W(• --)</b>	(3 & 10 cm).			
9002 B 0147	-Oost dyck, Heli-tower	51° 16.5' N 2° 26.8' E	<b>Mo.(U)W.</b> period 15s	49 15	11	Red tower, three white bands at top.	Light on each of four corners. AIS (MMSI No 002053500). Connected to helicopter tower situated 160° 20m. Horn: Mo.(U) ev. 30s. Sounded when visibility less than 3000m.
RACON			<b>O(---)</b>	(3 & 10 cm).			
9004	-KB.	51° 20.9' N 2° 42.9' E	<b>Q.W.</b>	N. CARDINAL Black column, black topmark, yellow base.			
RACON			<b>K(- • -)</b>				
NIEUWPOORT:							
9008 B 0074	-E. jetty, near root	51° 09.3' N 2° 43.8' E	<b>FI.(2)R.</b> period 14s fl. 0.4s, ec. 2.6s fl. 0.4s, ec. 10.6s	92 28	16	Red cylindrical tower, white banded.	

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>BELGIUM-NORTH SEA</b>							
9012 B 0076	-W. mole, head	51° 09.4' N 2° 43.0' E	<b>F.G.</b>	39 12	11	White round tower.	Visible 25°-250°, Visible 284°-324°. Horn: Mo(U) 30s.
9016 B 0075	-E. mole, head	51° 09.5' N 2° 43.1' E	<b>F.R.</b>	39 12	11	White round tower.	Visible 25°-250°, Visible 307°-347°.
OOSTENDE:							
9020 B 0092	-Oostende	51° 14.2' N 2° 55.8' E	<b>Fl.(3)W.</b> period 10s fl. 0.2s, ec. 1.4s fl. 0.2s, ec. 1.4s fl. 0.2s, ec. 6.6s	213 65	22	White concrete tower, two blue diagonal stripes; 190.	Visible 71°-69°30'.
9022 B 0094	-W. pier, head	51° 14.3' N 2° 55.0' E	<b>F.G.</b>	39 12	10	White round tower.	Visible 57°-327°.
9028 B 0098	-E. pier	51° 14.3' N 2° 55.5' E	<b>Q.Y.</b>			Signal mast.	SIGNAL STATION. Shown whenever channel is closed. Tide signal. Storm Signal.
9037 B 0107	-Entrance channel Range, front	51° 13.8' N 2° 55.9' E	<b>Iso.W.</b> period 4s	118 36	18	Red lattice metal mast, white banded, "x" topmark.	Visible 68°-218°. Shown 24 hours. <b>Radar reflector.</b>
9037.1 B 0107.1	--Rear, 391 meters 143° from front	51° 13.6' N 2° 56.1' E	<b>Iso.W.</b> period 4s	164 50	18	Red lattice metal mast, white banded, "x" topmark.	Visible 68°-218°. Shown 24 hours. Synchronized with front. <b>Radar reflector.</b>
BLANKENBERGE:							
9044 B 0112	-Comte Jean	51° 18.8' N 3° 06.9' E	<b>Fl.(2)W.</b> period 8s fl. 1.3s, ec. 1.3s fl. 1.3s, ec. 4.1s	105 32	17	White concrete tower, black top.	Visible 65°-245°. Storm signals.
9048 B 0114	-E. breakwater, head	51° 18.9' N 3° 06.6' E	<b>F.R.</b>	46 14	11	White round tower.	Visible 290°-245°. Horn: Mo(U) 30s.
9052 B 0113.4	-W. breakwater, head	51° 18.9' N 3° 06.5' E	<b>F.G.</b>	46 14	11	White round tower; 26.	Visible INTENSIFIED65°- 290°, Visible UNINTENSIFIED-335°.
9067 B 0119	MOW 0	51° 23.7' N 3° 02.8' E	<b>Fl.(5)W.</b> period 20s	79 24		Yellow piles; 56.	Tide gauge.
	RACON		<b>S(•••)</b>		10		(3 & 10 cm).
9067.3 B 0119.5	MOW 1	51° 21.6' N 3° 07.1' E	<b>Fl.(5)Y.</b> period 20s	79 24		Yellow piles.	Tide gauge.
9067.5 B 0119.8	MOW 3	51° 23.4' N 3° 11.9' E	<b>Fl.(5)Y.</b> period 20s	79 24		Yellow piles; 56.	Tide gauge.
	RACON		<b>H(••••)</b>		10		(3 & 10 cm).
9067.6 B 012	MOW 4	51° 25.1' N 3° 17.9' E	<b>Fl.(5)W.</b> period 20s	79 24		Yellow piles; 49.	Tide gauge.
	RACON		<b>N(-•)</b>		10		(3 & 10cm).
ZEEBRUGGE:							
9068 B 0124	-Range, front, mole	51° 20.7' N 3° 13.1' E	<b>Oc.W.</b> period 5s lt. 4s, ec. 1s	79 24	8	White metal post, red banded.	Shown 24 hours.
9072 B 0124.1	--Rear, 890 meters 136° from front	51° 20.4' N 3° 13.7' E	<b>Oc.W.</b> period 5s lt. 4s, ec. 1s	154 47	8	White metal post, red banded.	Synchronized with front.
9073 B 0123.2	-W. breakwater, head	51° 21.7' N 3° 11.2' E	<b>Oc.G.</b> period 7s	102 31	7 2	Round concrete tower.	Visible 57°-267°, Visible UNINTENSIFIED-57° in harbor. Green strip lights on seaward side. Harbor signals 1150 meters S. <b>Horn:</b> 3bl. ev. 30s (bl. 3s, si. 5s, bl. 3s, si. 5s, bl. 3s, si. 11s)

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>BELGIUM-NORTH SEA</b>							
9074 B 0123	-E. breakwater, head	51° 21.8' N 3° 11.9' E	<b>Oc.R.</b> period 7s	102 31	7 2	Round concrete tower.	Visible 87°-281°, Visible UNINTENSIFIED-87° in harbor. Red strip lights on seaward side. <b>Bell:</b> 1 strokes ev. 25s
9075 B 0124.16	-Wielingen Dock Range, front	51° 21.5' N 3° 10.7' E	<b>F.W.</b>	46 14		Metal mast.	
9075.1 B 0124.17	--Rear, 273° from front	51° 21.5' N 3° 10.7' E	<b>F.W.</b>	52 16		Metal mast.	
9075.5 B 0124.18	--Jetty Range, front	51° 21.3' N 3° 10.7' E	<b>F.W.</b>	33 10		Metal mast.	
9075.51 B 0124.19	---Rear, 420 meters 228° from front	51° 21.2' N 3° 10.4' E	<b>F.W.</b>	72 22		White metal mast, red banded.	
9075.7 B 0124.5	--Range, front	51° 20.6' N 3° 10.7' E	<b>F.Bu.</b>	66 20		White metal mast, red banded.	2 neon strip lights.
9075.72 B 0124.51	---Rear, 155 meters 231° from front	51° 20.5' N 3° 10.5' E	<b>F.Bu.</b>	92 28		White metal mast, red banded.	2 neon strip lights.
9076 B 0122	-Leopold II Dam, mole, head	51° 20.8' N 3° 12.2' E	<b>Oc.W.R.</b> period 15s lt. 12s, ec. 3s	72 22	W. 11 R. 10	Grey round tower.	W. 68°-145°, R. -212°, W. - 296°. Traffic signals. Shown 24 hours.
9082 B 0126	-Brittanniadok, outer range, front	51° 20.4' N 3° 13.1' E	<b>F.Bu.</b>	23 7		Metal mast.	
9082.1 B 0126.1	--Rear, 240 meters 127° from front	51° 20.3' N 3° 13.4' E	<b>F.Bu.</b>	59 18		Metal mast.	
9088 B 0128	-Harbor Range, front	51° 20.4' N 3° 11.7' E	<b>2F.W.</b> (vert.)	105 32		White concrete column, red banded.	Neon. 8 meters apart.
9092 B 0128.1	--Rear, 200 meters 220° from front	51° 20.3' N 3° 11.6' E	<b>F.W.</b>	102 31		White metal post, red banded.	8 meters apart. Neon.
9093 B 0131.5	-Westhoofd, off NE. corner	51° 20.4' N 3° 11.7' E	<b>F.R.R.G.</b> (vert.)		1	Metal post.	Marks underwater dam. <b>Radar reflector.</b>
9096 B 0125	-Outer Harbor Range, front	51° 20.3' N 3° 12.9' E	<b>Oc.W.R.</b> period 6s	75 23	3	White metal pylon, red banded; 36.	W. 135°-160°, R. -169°.
9100 B 0125.1	--Rear, 520 meters 153° from front	51° 20.1' N 3° 13.1' E	<b>Oc.W.</b> period 6s	125 38	3	White building, red banded.	Visible 150°-162°. Synchronized with front. Shown 24 hours.

**THE NETHERLANDS-NORTH HINDER TO GOEREE**

9104	Noord Hinder Buoy	52° 00.1' N 2° 51.2' E	<b>Fl.(2)W.</b> period 10s			SAFE WATER Red and white spherical buoy.	
	RACON		<b>T(-)</b>		12		(3 & 10 cm).
9106	Noord Hinder Buoy NHR- SE	51° 45.5' N 2° 40.0' E	<b>Fl.G.</b> period 5s			Green conical structure.	
	RACON		<b>N(- ·)</b> period 120s		10		
9110 B 0157	Appelzak	51° 22.8' N 3° 22.7' E	<b>Fl.(5)Y.</b> period 20s			Yellow post.	Tide gauge.
9118 B 0166.1	-Wielingen	51° 24.4' N 3° 31.3' E	<b>Oc.W.</b> period 10s	92 28	14	Tower; 73.	Private light.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>THE NETHERLANDS-NORTH HINDER TO GOEREE</b>							
9124 B 0208	Breskens Veerhaven, W. mole	51° 24.4' N 3° 33.1' E	F.G.	33 10	4	Black and white post; 35.	Visible 180°-245°. Fog detector light F.W. shown in fog towards port. F.Y. shown in fog towards river. <b>Radar reflector.</b>
9128 B 0209	-E. mole	51° 24.3' N 3° 33.2' E	F.R.	33 10	5	Black and white post; 33.	F.Y. shown in fog. <b>Radar reflector.</b>
9132 B 0212	Breskens, W. mole	51° 24.0' N 3° 34.1' E	F.G.	26 8		White post, green banded, platform; 17.	F.Y. shown in fog towards river.
<b>THE NETHERLANDS-ENTRANCE TO WESTERSCHELDE</b>							
BRESKENS:							
9136 B 0214	-E. mole	51° 24.0' N 3° 34.1' E	F.R.	23 7		Red mast, white banded; 16.	<b>Radar reflector.</b>
9137	Schouwenbank Buoy	51° 45.0' N 3° 14.4' E	Mo.(A)W. period 8s			SAFE WATER Red and white spherical buoy.	
	RACON		O(---) period 120s		10		(3 & 10 cm).
WALCHEREN:							
9140 B 0173.9	--Noorderhoofd Range, front	51° 32.4' N 3° 26.2' E	Oc.W.R.G. period 10s	66 20	W. 13 R. 10 G. 10	Red tower, white banded; 52.	R. 353°-8°, G. -29°, W. -169°, Obscured -353°.
9144 B 0174	--Westkapelle rear, about 1.3 km. 149°30' from front	51° 31.8' N 3° 26.8' E	FI.W. period 3s fl. 0.1s, ec. 2.9s	164 50	28	Square tower, red superstructure; 171.	Obscured by shore on certain bearings.
9148 B 0176	--Molenhoofd	51° 31.6' N 3° 26.0' E	Oc.W.R.G. period 6s lt. 4s, ec. 2s	36 11	6	Red mast; 23.	R. 311°30'-330°30', W. -348°30', R. -0°30', G. -34°30', W. -36°30', G. -124°, W. -167°30', R. -198°, Obscured -311°30'.
9152 B 0174.1	-Zoutelande.	51° 30.3' N 3° 28.4' E	F.W.	72 22	12	Red brick tower; 43.	
9156 B 0184	-Kaapduinen Range, front	51° 28.5' N 3° 31.0' E	Oc.W. period 5s lt. 4s, ec. 1s	89 27	13	Red tower, yellow banded; 46.	Visible 122°30'-137°30'.
9160 B 0184.1	--Rear, 220 meters 130° from front	51° 28.4' N 3° 31.1' E	Oc.W. period 5s lt. 4s, ec. 1s	118 36	13	Red tower, yellow banded; 43.	Visible 122°30'-137°30'. Synchronized with front.
9164 B 0188	-Fort de Nolle	51° 26.9' N 3° 33.1' E	Oc.W. period 9s lt. 8.5s, ec. 0.5s	20 6	2	Red gas-holder on bunker, white banded; 20.	
9168 B 0200	--Commercial Harbor	51° 26.4' N 3° 34.5' E	Iso.R. period 3s	36 11	8	Red lattice metal tower; 36.	
9172 B 0192	--Leugenaarshoofd Range, front	51° 26.4' N 3° 34.1' E	Oc.R. period 5s lt. 3s, ec. 2s	23 7	5	Red post, white banded; 23.	
9176 B 0192.1	--Rear, 550 meters 117° from front	51° 26.3' N 3° 34.6' E	Oc.W. period 5s lt. 3s, ec. 2s	33 10	2	Red mast, white banded, triangle, point down daymark; 23.	R. 245°-273°, W. -123°30', R. -147°. Synchronized with front.
9180 B 0202	--Buitenhaven, W. mole, head	51° 26.4' N 3° 36.1' E	F.R.	39 12	6	Red post, white banded; 22.	Storm Signal.
			Iso.W.R.G. period 4s				G. 17°30'-42°30', W. -56°30', R. -73°, W. -323°30', G. -352°, W. -17°30'. Storm Signal.
9184 B 0202.2	--E. side	51° 26.4' N 3° 36.4' E	F.G.	23 7	4	Green post, white banded.	F.Y. shown in fog.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>THE NETHERLANDS-ENTRANCE TO WESTERSCHELDE</b>							
9188 B 0203	--Schone Waardin	51° 26.5' N 3° 37.9' E	<b>Oc.W.R.G.</b> period 9s lt. 6s, ec. 3s	39 12	W. 13 R. 10 G. 9	White mast; 16.	R. 235°-271°, W. -283°, G. - 335°, R. -341°, G. -26°, W. -79°, R. -90°30'.
<b>THE NETHERLANDS-WESTERSCHELDE</b>							
9192 B 0204	--W. mole	51° 26.9' N 3° 40.1' E	<b>F.R.</b>	33 10	5	White concrete column; 16.	F.Y. shown in fog. 2 F.R. (vert.) shown when unsafe to approach.
9196 B 0205	--E. mole	51° 26.8' N 3° 40.5' E	<b>F.G.</b>	33 10	4	White concrete column; 16.	
9200 B 0206	--Range, front	51° 27.9' N 3° 41.0' E	<b>Oc.R.</b> period 8s lt. 6s, ec. 2s	108 33	10	92.	Visible 18°-28° by day.
9204 B 0206.1	--Rear, 309 meters 023° from front	51° 27.9' N 3° 41.0' E	<b>Oc.R.</b> period 8s	131 40	10	115.	Visible 18°-28° by day. Synchronized with front.
9212 B 0206.21	--Quarleshaven, 059°	51° 28.4' N 3° 43.4' E	<b>Dir.W.R.G.</b>		3	Grey mast; 82.	F.G. 57°30'-58°24', Al.W.G. - 59°6', F.W. -59°30', Al.W.R. -60°12', F.R. - 61°.
9214 B 0206.5	--Van Cittershaven	51° 26.7' N 3° 43.3' E	<b>Dir.F.W.R.G.</b>				G. 123°48'-124°42', W. - 125°, R. -125°48'.
9215 B 0206.7	---Dir. Lt.	51° 27.9' N 3° 40.5' E	<b>Dir.F.W.R.G.</b>				R. 303°36'-304°54', W. - 305°6', G. -306°24'.
BRAAKMANHAVEN:							
9232 B 0233	-First entrance Range, front	51° 20.3' N 3° 45.7' E	<b>Iso.W.</b> period 4s	39 12		White post, black banded; 20.	
9236 B 0233.1	--Rear, 60 meters 191° from front	51° 20.2' N 3° 45.7' E	<b>Iso.W.</b> period 4s	52 16		White post, black banded; 46.	Synchronized with front.
9240 B 0233.4	-Entrance Dir Lt	51° 20.4' N 3° 45.4' E	<b>Al.F.W.R.G.</b>			Metal mast; 98.	F.G. 201°30'-206°30', Al.W.G. - 210°30', F.W. -212°30', Al.W.R. -216°30', F.R. - 221°30'.
9242 B 0234	--W. side	51° 21.1' N 3° 45.8' E	<b>F.G.</b>	33 10	3	Green post, white banded.	Traffic signal. F.W. shown in fog. Q.R. 5m shown when harbor obstructed. <b>Radar reflector.</b>
9242.5 B 0234.2	--E. side	51° 21.1' N 3° 46.1' E	<b>F.R.</b>	30 9		Red post, white banded; 23.	Traffic signal. <b>Radar reflector.</b>
9248 B 0236	-Outer Dyke Range, front	51° 21.0' N 3° 47.2' E	<b>Oc.W.</b> period 5s	26 8	13	White mast, green banded, white rectangular daymark; 13.	Visible INTENSIFIED117°- 133°.
9252 B 0236.1	--Rear, 365 meters 125° from front	51° 20.9' N 3° 47.5' E	<b>Oc.W.</b> period 5s	59 18	13	Green latticed tower, white banded; 49.	Visible INTENSIFIED117°- 133°.
TERNEUZEN SEA HARBOR:							
9256 B 0250	-Entrance Range, front	51° 20.1' N 3° 48.5' E	<b>Iso.W.</b> period 4s	39 12	8	White mast on white lighthouse; 29.	
9260 B 0250.1	--Rear, 88 meters 192°30' from front	51° 20.1' N 3° 48.5' E	<b>Iso.W.</b> period 4s	49 15	8	White mast on white lighthouse; 29.	Synchronized with front.
9264 B 0251	-W. mole	51° 20.6' N 3° 49.0' E	<b>F.G.</b>	20 6	4	White mast, green banded; 23.	Traffic signals. F.Y. shown in fog towards river.
9268 B 0252	-E. mole	51° 20.5' N 3° 49.2' E	<b>F.R.</b>	20 6	5	Red mast, white banded; 23.	2 F.R. (vert.) shown when unsafe to approach.
TERNEUZEN WEST HARBOR:							
9272 B 0245	-W. mole, near head	51° 20.6' N 3° 49.6' E	<b>F.G.</b>	23 7		White mast, green banded; 23.	F.Y. shown in fog towards river.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>THE NETHERLANDS-WESTERSCHELDE</b>							
9276 B 0246	-E. mole, near head	51° 20.5' N 3° 49.7' E	<b>F.R.</b>	23 7		Red mast, white banded; 23.	2 F.R. (vert.) shown when unsafe to approach.
9280 B 0244	-W. jetty, about 101 meters from head	51° 20.5' N 3° 49.6' E	<b>Oc.W.R.G.</b> period 5s lt. 3s, ec. 2s	52 16	W. 9 R. 7 G. 6	White post, black banded, platform, white lighthouse; 33.	R. 90°-115°, W. -120°30', G. -129°30', W. -245°, G. -249°30', W. -278°30', R. -4°.
9284 B 0256	-Othenepolder, W. mole near root	51° 20.1' N 3° 51.5' E	<b>Iso.W.R.G.</b> period 8s	43 13	W. 12 R. 9 G. 9	Green metal structure, white stripe; 14.	R. 83°-113°, G. -146°30', W. -149°30', G. -194°30', W. -197°30', G. -218°30', R. -234°.
9288 B 0258	-Margarethapolder, tide gauge	51° 21.0' N 3° 53.1' E	<b>Oc.W.R.G.</b> period 5s lt. 6s, ec. 3s	33 10	W. 6 R. 4 G. 4	Green structure, white stripe; 39.	R. 60°-75°30', W. -79°, G. -103°30', W. -179°, G. -217°, W. -233°, R. -239°, W. -60°.
9292 B 0262	-Eendragt polder Range, front, on embankment	51° 21.4' N 3° 54.3' E	<b>Oc.W.</b> period 5s lt. 4s, ec. 1s	33 10		8 Green and white mast; 16.	
9296 B 0262.1	--Rear, 283 meters 074°30' from front	51° 21.4' N 3° 54.5' E	<b>Oc.W.</b> period 5s lt. 4s, ec. 1s	66 20	6	Green post, white banded; 59.	Synchronized with front.
9300 B 0268	-Hoedekenskerke	51° 25.1' N 3° 55.0' E	<b>Oc.W.R.G.</b> period 9s	26 8	6	Red metal beacon, white banded; 16.	W. 7°-18°30', R. -30°, Obscured -190°, R. -205°30', W. -208°30', G. -230°30', W. -326°, G. -7°.
9320 B 0282	-Schore Range, front	51° 27.2' N 3° 59.4' E	<b>Oc.W.</b> period 4s lt. 3s, ec. 1s	36 11	2	White structure, red banded; 13.	
9324 B 0282.1	--Rear, 480 meters 021°30' from front	51° 27.5' N 3° 59.6' E	<b>Oc.W.</b> period 4s	66 20		Red mast, white banded; 66.	Synchronized with front.
9328 B 0286	--Entrance canal, W. side	51° 26.4' N 4° 00.5' E	<b>Oc.W.R.G.</b> period 10s lt. 7s, ec. 3s	33 10		Red tower, white banded; 26.	R. 43°-66°, W. -80°30', G. -102°30', W. -113°, R. -127°30', Obscured -288°, R. -302°30', G. -316°, W. -331°30', G. -346°, W. -43°. Secondary structure: 33.
			<b>F.R.</b>	36 11			
9329 B 0288	--E. side of entrance canal	51° 26.4' N 4° 00.8' E	<b>F.G.</b>	26 8		Grey post; 16.	
WALSOORDEN:							
9348 B 0296	-Oude Hoofd	51° 23.6' N 4° 01.9' E	<b>Iso.W.R.G.</b> period 2s	36 11	W. 8 R. 6 G. 5	Green and white beacon, dolphin; 39.	R. 132°-177°30', W. -270°30', G. -323°30', W. -336°30', R. -12°.
9352 B 0298	-Nieuwe haven, N. jetty	51° 22.9' N 4° 02.1' E	<b>F.G.</b>	23 7		Grey post; 13.	F.Y. shown in fog. Red and white square daymark shown below red and white lights on harbor dam to prevent damage from waves.
9356 B 0299	--S. jetty	51° 22.9' N 4° 02.1' E	<b>F.R.</b>	23 7		Grey post; 12.	
9360 B 0300	-Entrance Range, front	51° 22.8' N 4° 02.0' E	<b>Oc.W.</b> period 3s lt. 2s, ec. 1s	36 11		Grey post, white rectangular daymark; 26.	Visible 200°-240°.
9364 B 0300.1	--Rear, 60 meters 220° from front	51° 22.8' N 4° 02.0' E	<b>Oc.W.</b> period 3s lt. 2s, ec. 1s	46 14		Grey mast, red triangle, point down daymark.	Visible 200°-240°. Synchronized with front.
BATH:							
9388 B 0318	-Westketel	51° 23.6' N 4° 10.2' E	<b>Oc.W.R.G.</b> period 10s lt. 7s, ec. 3s	33 10	W. 8 R. 5 G. 5	Red post, platform; 36.	W. 16°-37°, R. -90°, W. -200°, R. -246°30', W. -256°30', G. -301°30', W. -353°, G. -16°.
9392 B 0319.9	-Middenketel Range, front	51° 24.0' N 4° 11.2' E	<b>Iso.W.R.</b> period 3s	33 10	W. 6 R. 4	Red post, white banded; 33.	R. 248°-279°, W. -248°.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>THE NETHERLANDS-WESTERSCHELDE</b>							
9396 B 0320	--Noordketel, common rear, 683 meters 044° from front	51° 24.2' N 4° 11.5' E	<b>Oc.W.</b> period 3s lt. 2s, ec. 1s	46 14	6	Red gas boiler, white column, solar pannels; 43.	
9400 B 0320.1	-Oostketel, 426 meters 310° from rear	51° 24.1' N 4° 11.8' E	<b>Q.W.R.G.</b>	26 8	W. 6 R. 4 G. 4	Red post, two white bands; 33.	W. 55°-65°30', R. -90°, W. - 270°, R. -301°30', W. - 325°, G. -55°.
ZUID BEVELAND:							
9404 B 0330	-Reigersbergsche Polder, angle of sea dyke	51° 24.0' N 4° 12.4' E	<b>Oc.W.R.G.</b> period 5s lt. 4s, ec. 1s	16 5	W. 6 R. 5 G. 4	Red metal post, white banded; 16.	W. 75°-87°, R. -112°, W. - 280°, R. -342°, W. -349°, G. -75°.
<b>BELGIUM-SCHELDE</b>							
9408 B 0336	Zuid Saaftinge	51° 21.9' N 4° 13.1' E	<b>Iso.W.R.G.</b> period 10s	30 9	W. 6 R. 4 G. 4	Green post, beacon; 37.	R. 158°-168°30', W. -240°, G. -291°, W. -322°, R. - 332°, W. -158°.
9412 B 0338	Nord Ballastplaat	51° 21.4' N 4° 14.8' E	<b>FI.W.R.G.</b> period 4s fl. 1s, ec. 3s	26 8	W. 9 R. 7 G. 6	Black wooden beacon, red daymark.	R. 275°-309°, W. -320°, G. - 327°, W. -348°, G. -44°, W. -96°, R. -145°.
9416	Plaat van Doel, W. side of river	51° 21.0' N 4° 14.5' E	<b>F.G., 2 F.R.</b>	26 8	4	Tide gauge.	
9420 B 0346	Zandvliet	51° 20.7' N 4° 16.3' E	<b>Dir.W.R.G.</b>	79 24	W. 4 R. 3 G. 3	On top of radar tower.	Oc.G. 116°38'-117°10', F.G. 117°11'-117°35', Al.W.G. -118°8', F.W. 118°38', Al.W.R. -119°11', F.R. - 119°35', Oc.R. -120°8'.
9422 B 0346.1	-Front, 270 meters 118° from common rear	51° 20.6' N 4° 16.3' E	<b>Oc.W.</b> period 5s	39 12	9		
9422.1 B 0346.11	-Front, 270 meters 118° from common rear	51° 20.6' N 4° 16.3' E	<b>Oc.W.</b> period 5s	39 12	9		
9424 B 0346.12	--Common rear	51° 20.6' N 4° 16.5' E	<b>Oc.W.</b> period 5s	69 21	9	Red post, red rectangular daymark white banded.	Synchronized with fronts.
9426 B 0346.2	Entrance, S. side	51° 20.7' N 4° 16.2' E	<b>F.G.</b>			Post on quay.	
DOEL:							
9456 B 0356	-Range, front	51° 18.7' N 4° 16.1' E	<b>FI.W.R.</b> period 3s fl. 1s, ec. 2s	39 12	W. 10 R. 7	Yellow post, black rectangular daymark white stripe.	R. 145°-185°, W. -334°, R. - 355° Fl.W. 3s 18M, Visible 186°45'-190°15' by day.
			<b>Q.W.</b>	39 12	18		Visible 326°15'-329°45' by day.
9460 B 0356.1	--Rear, 312 meters 188°30' from front	51° 18.5' N 4° 16.0' E	<b>FI.W.</b> period 3s fl. 1s, ec. 2s	72 22	10	Yellow post, yellow triangle, point down daymark black banded.	Visible 186°45'-190°15'. Synchronized with front. Range 18M by day. Red LED triangular daymark point down by night.
9461.1 B 0372.5	Deurganckdok, W. Range, front	51° 16.8' N 4° 14.9' E	<b>Oc.W.</b> period 5s lt. 4s, ec. 1s	69 21	3	Black post, yellow daymark.	Secondary structure: Red LED triangular daymark, point down. Light line provides guidance when entering the dock on the N. side.
9461.15 B 0372.501	--Rear, 300 meters 212°12' from front	51° 16.7' N 4° 14.7' E	<b>Oc.W.</b> period 5s lt. 4s, ec. 1s	79 24	3	Black post, yellow daymark.	Secondary structure: Red LED triangular daymark, point down. Synchronized with front. Light line provides guidance when entering the dock on the N. side.
9461.2 B 0372.6	-E. Range, front	51° 16.8' N 4° 15.0' E	<b>Oc.W.</b> period 5s lt. 4s, ec. 1s	69 21	3	Black post, yellow daymark.	Secondary structure: Red LED triangular daymark, point down. Light line provides guidance in entering the dock on the S. side.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>BELGIUM-SCHELDE</b>							
9461.25 B 0372.601	--Rear, 183 meters 213°18' from front	51° 16.6' N 4° 14.9' E	<b>Oc.W.</b> period 5s lt. 4s, ec. 1s	79 24	3	Black post, yellow daymark.	Secondary structure: Red LED triangular daymark point down. Synchronized with front.
9464 B 0364	Lillo, jetty, head	51° 18.2' N 4° 17.2' E	<b>Oc.W.R.G.</b> period 10s lt. 7s, ec. 3s	26 8	W. 9 R. 7 G. 6	Black beacon, red rectangular daymark.	R. 260°-303°6', W. -307°24', G. -116°30', W. -148°, R. -180°.
9472 B 0368	Liefkenshoek Range, front	51° 17.8' N 4° 17.1' E	<b>Oc.W.R.G.</b> period 3s lt. 2s, ec. 1s	23 7	W. 8 R. 6 G. 5	Black tower, white diagonal stripes, concrete base.	R. 75°-125°24', W. -151°36', G. -264°54', W. -288°24', R. -307°. Tide gauge. Oc.W. 3s visible 280°15'-283°45' by day.
9476 B 0368.1	--Rear, 60 meters 282° from front	51° 17.8' N 4° 17.1' E	<b>Oc.W.</b> period 3s lt. 2s, ec. 1s	39 12	9	Black and white mast, lantern.	Visible 280°15'-283°45' by day. Synchronized with front.
<b>ANTWERPEN:</b>							
9484 B 0372	-Kruisschans Range, front	51° 17.3' N 4° 19.4' E	<b>Oc.W.R.G.</b> period 5s lt. 4s, ec. 1s	26 8	W. 9 R. 7 G. 6	Wood beacon, red daymark.	R. 320°-358°24', W. -14°36', G. -105°30', W. -121°, R. -150°. Tide gauge. F.W. visible 110°15'-113°45' by day.
9488 B 0372.1	--Rear, 195 meters 112° from front	51° 17.3' N 4° 19.5' E	<b>Oc.W.</b> period 5s lt. 4s, ec. 1s	49 15	7	Red post, daymark red and yellow diagonal stripes, red lantern.	Synchronized with front. F.W. visible 110°15'-113°45' by day. Secondary structure: Red LED triangular daymark, point down.
9492 B 0376	-Meestooft	51° 16.6' N 4° 19.3' E	<b>Fl.W.R.G.</b> period 4s fl. 1s, ec. 3s	26 8	W. 9 R. 7 G. 6	Black beacon, red rectangular daymark white stripes.	W. 19°-39°, R. -52°54', W. -116°54', G. -172°12', W. -192°42', R. -234°.
<b>F.R.</b>							
9496 B 0378	-Fort de Parel Range, front	51° 15.8' N 4° 17.7' E	<b>Oc.W.R.G.</b> period 4s lt. 3s, ec. 1s	52 16	W. 9 R. 7 G. 6	Black beacon, yellow rectangular daymark.	R. 174°24'-222°, W. -232°30', G. -319°12', W. -339°, R. -25°. Oc.W. 4s visible 225°15'-228°45' by day. Leading line 227° provides guidance over the threshold of the Pearl.
9500 B 0378.1	--Rear, 187 meters 227° from front	51° 15.8' N 4° 17.6' E	<b>Oc.W.</b> period 4s	75 23	9	Yellow post, black "x" topmark, red lantern.	Visible 225°15'-228°45' by day. Synchronized with front.
9504 B 0380	-Krankeloon Range, front, near fort	51° 15.3' N 4° 18.0' E	<b>Oc.W.R.G.</b> period 5s lt. 4s, ec. 1s	26 8	W. 9 R. 7 G. 6	White column, black stripe.	R. 142°-164°, W. -200°, G. -274°, W. -283°30', R. -316°. Oc.W. 5s visible 278°15'-281°45' by day.
9508 B 0380.1	--Rear, 280 meters 280° from front	51° 15.3' N 4° 17.7' E	<b>Oc.W.</b> period 5s lt. 4s, ec. 1s	49 15	7	Yellow lattice metal tower, black rectangular daymark white banded.	Visible 278°15'-281°45' by day. Synchronized with front.
9512 B 0382	-Fort Filip, SW. side	51° 15.5' N 4° 18.4' E	<b>L.Fl.W.R.G.</b> period 6s fl. 2s, ec. 4s	26 8	W. 7 R. 5 G. 4	Black wooden beacon, red rectangular daymark.	R. 268°-294°, W. -306°, G. -358°, W. -104°, G. -127°, R. -153°.
9516 B 0384	-Boerenschans Range, front	51° 15.1' N 4° 19.9' E	<b>Fl.W.</b> period 4s fl. 1s, ec. 3s	26 8	3	Black beacon, red rectangular daymark.	Tide gauge. Fl.W. 4s 2M visible 93°15'-96°45' by day. Secondary structure: red LED triangular daymark, point up.
9520 B 0384.1	--Rear, 400 meters 095° from front	51° 15.1' N 4° 20.2' E	<b>Q.W.</b>	46 14	5	Red post, white banded, red triangle, point down daymark with "x".	Visible 93°15'-96°45'. Secondary structure: Red LED triangular daymark, point down.
<b>F.R.</b>							
9528 B 0387.9	-Draaiende Sluis, rear, 240 meters 140°48' from common front	51° 14.2' N 4° 21.0' E	<b>Q.W.</b>	49 15	6	Yellow mast, red lantern, black "x" topmark.	Visible 113°-194°. Leading line 140°48' provides guidance over the threshold of Draaiende Lock.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>BELGIUM-SCHELDE</b>							
9532 <i>B 0388</i>	--Pijp Tabak Range, common front	51° 14.3' N 4° 20.8' E	<b>Oc.W.R.G.</b> period 5s lt. 4s, ec. 1s	23 7	W. 7 R. 5 G. 4	Concrete post, black rectangular daymark white checkered.	R. 126°-135°, W. -147°, G. - 263°, W. -274°, R. -308°.
9536 <i>B 0388.1</i>	-Rear, 270 meters 270° from front	51° 14.3' N 4° 20.6' E	<b>Q.W.</b>	49 15	6	Black column, red lantern, yellow "x" topmark.	
9540 <i>B 0392</i>	--Range, front	51° 14.3' N 4° 23.9' E	<b>F.R.</b>	16 5	4	Post, red rectangular daymark.	Neon.
9544 <i>B 0392.1</i>	---Rear, 170 meters 091° from front	51° 14.3' N 4° 24.0' E	<b>F.R.</b>	26 8	4	Mast, red neon triangle, point down daymark.	
<b>THE NETHERLANDS-NORTH SEA</b>							
SCHOUWEN EN DUIVELAND:							
9576 <i>B 0500</i>	-West Schouwen	51° 42.5' N 3° 41.5' E	<b>Fl.(2+1)W.</b> period 15s fl. 0.2s, ec. 2.4s fl. 0.2s, ec. 6s fl. 0.2s, ec. 6s	190 58	30	Masonry tower, red and white diagonal band; 164.	
9584 <i>B 0408</i>	-Burghsluis.	51° 40.6' N 3° 45.6' E	<b>F.W.R.G.</b>	36 11	W. 8 R. 5 G. 4	Mast, red column; 22.	R. 230°-245°, W. -253°30', G. -293°, W. -0°, G. - 25°30', W. -32°, G. -41°, R. -70°, W. -95°.
9588 <i>B 0506</i>	-Ossehoek, pier, head	51° 44.6' N 3° 53.7' E	<b>F.G.</b>	26 8	3	White beacon.	
GOEREE EN OVER- FLAKKEE:							
9592 <i>B 0514</i>	--W. mole, head	51° 47.9' N 3° 56.3' E	<b>F.R.</b>	16 5		Mast; 8.	
9596 <i>B 0515</i>	--E. mole, head	51° 47.9' N 3° 56.2' E	<b>F.G.</b>	16 5		Mast; 7.	
9600 <i>B 0518</i>	-Westhoofd	51° 48.8' N 3° 51.8' E	<b>Fl.(3)W.</b> period 15s fl. 0.2s, ec. 2.8s fl. 0.2s, ec. 2.8s fl. 0.2s, ec. 8.8s	184 56	30	Brown square tower; 170.	
HELLEVOETSLUIS:							
9624 <i>B 0536</i>	-Naval harbor, W. head	51° 49.2' N 4° 07.7' E	<b>Iso.W.R.G.</b> period 10s	56 17	W. 11 R. 8 G. 7	White tower, red top; 59.	G. 266°-275°, W. -294°, R. - 316°, W. -36°, G. -58°, W. -95°, R. -140°.
9628 <i>B 0540</i>	-W. mole, head	51° 49.2' N 4° 07.9' E	<b>F.R.</b>	23 7		Red post, white banded; 13.	
9632 <i>B 0542</i>	-E. mole, head	51° 49.2' N 4° 08.0' E	<b>F.G.</b>	23 7		Green post, white banded; 13.	F.Y. shown in fog.
9636 <i>B 0630</i>	Goeree	51° 55.5' N 3° 40.1' E	<b>Fl.(4)W.</b>	105 32	28	Red and white checkered tower; 79.	Lights on the four corners. Helicopter platform. Horn: 4bl. ev. 30s (bl. 2s, si. 3s, bl. 2s, si. 3s, bl. 2s, si. 3s, bl. 2s, si. 13s).
RACON			<b>T(-)</b> period 15s				
HOEK VAN HOLLAND:							
9644 <i>B 0635</i>	-Zuiderdam, head	51° 59.1' N 4° 02.5' E	<b>F.G.</b>	82 25	10	Green tower, white banded; 102.	Visible 330°-307°. Helicopter platform.
9648 <i>B 0634</i>	-Noorderdam, new head, N. side of entrance	51° 59.7' N 4° 02.8' E	<b>F.R.</b>	85 26	10	Red tower, white bands; 102.	Visible 278°-255°. Helicopter platform.
9656 <i>B 0637</i>	-Maasmond Range, front	51° 58.9' N 4° 04.9' E	<b>Iso.W.</b> period 4s	98 30	21	White tower, black banded.	Visible 101°-123°. For use by very deep draft vessels only.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>THE NETHERLANDS-NORTH SEA</b>							
9660 B 0637.1	--Rear, 1135 meters 112° from front	51° 58.6' N 4° 05.8' E	<b>Iso.W.</b> period 4s	157 48	21	White tower, black banded.	Visible 101°-123°. Synchronized with front.
9664 B 0638	--Entrance Range, front	51° 58.6' N 4° 07.5' E	<b>Iso.R.</b> period 6s	98 30	18	Red tower, white banded.	Visible 99°30'-114°30'.
9668 B 0638.1	---Rear, 450 meters 107° from front	51° 58.5' N 4° 07.9' E	<b>Iso.R.</b> period 6s	144 44	18	Red tower, white banded.	Visible 99°30'-114°30'. Synchronized with front.
9672 B 0642	--Calandkanaal Range, front	51° 57.6' N 4° 08.7' E	<b>Oc.G.</b> period 6s lt. 4s, ec. 2s	98 30	16	Red tower, white banded.	Visible 108°30'-123°30'.
9676 B 0642.1	---Rear, 550 meters 116° from front	51° 57.4' N 4° 09.1' E	<b>Oc.G.</b> period 6s	144 44	16	Red tower, white banded.	Visible 108°30'-123°30'. Synchronized with front.
9684 B 0646	---Entrance Range, front	51° 56.4' N 4° 04.7' E	<b>Iso.G.</b> period 3s	69 21	11	Red and white checkered post.	Visible 185°-200°, INTENSIFIED at night and in reduced visibility. Shown 24 hours.
9688 B 0646.1	----Rear, 50 meters 192°30' from front	51° 56.3' N 4° 04.7' E	<b>Iso.G.</b> period 3s	79 24	11	Red and white checkered post.	Visible INTENSIFIED 185°- 200°, INTENSIFIED at night and in reduced visibility. Synchronized with front. Shown 24 hours.
9689 B 0646.41	--Kleine Beerkanaal, NW. end	51° 58.5' N 4° 04.4' E	<b>2F.R.</b>	20 6		Grey post, platform, red and white daymark.	
9689.1 B 0646.45	---Island, N. end	51° 58.4' N 4° 04.8' E	<b>2F.R.</b>			Grey post, platform, red and white daymark.	
9689.2 B 0646.47	----S. end	51° 58.1' N 4° 04.9' E	<b>F.R.</b>			Red and white daymark.	
9689.3 B 0646.5	----SE. end	51° 57.9' N 4° 04.8' E	<b>F.R.</b>	20 6		Red and white daymark.	
9690 B 0646.7	--Beerkanaal, front	51° 57.5' N 4° 05.5' E	<b>Oc.W.</b> period 6s lt. 4s, ec. 2s	52 16		Grey post; 49.	Shown 24 hours. Leading line 110° provides guidance in the Yangtze Canal.
9690.1 B 0646.75	---Rear, 290 meters 110° from front	51° 57.5' N 4° 05.8' E	<b>Oc.W.</b> period 6s lt. 4s, ec. 2s	69 21		Grey post; 66.	Shown 24 hours. Synchronized with front.
9692 B 0647	-Petroleum Port, No 6	51° 56.8' N 4° 05.1' E	<b>F.G.</b>	13 4		White pedestal.	
9696 B 0648	-Mississippihaven, E. side	51° 56.6' N 4° 05.0' E	<b>Iso.W.R.G.</b> period 3s	66 20	W. 13 R. 10 G. 10	Red post, white checkered.	G. 66°30'-68°, W. -71°, R. - 72°30'. Shown 24 hours.
9701 B 0648.31	--W. side	51° 55.9' N 4° 02.2' E	<b>Iso.W.R.G.</b> period 3s	79 24	W. 13 R. 10 G. 10	Red post, white checkered.	G. 247°30'-248°30', W. - 250°30', R. -251°30'. Obscured -247°30'.
9702 B 0647.7	--Einde Amazonehaven, front	51° 56.7' N 4° 02.3' E	<b>Iso.W.</b> period 6s	52 16			
9703 B 0647.701	---Rear, 258°	51° 56.7' N 4° 02.2' E	<b>Iso.W.</b> period 6s	69 21			Synchronized with front.
9703.1 B 0633.7	-Europahavn, EON 1	51° 57.8' N 4° 01.8' E	<b>Fl.(5)Y.</b> period 20s				
9703.2 B 0633.71	--EON 2	51° 57.7' N 4° 01.8' E	<b>Fl.(5)Y.</b> period 10s				
ROTTERDAMSCH WATERWEG:							

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>THE NETHERLANDS-NORTH SEA</b>							
9704 B 0662	-Poortershaven Range, No 8, front	51° 56.1' N 4° 13.1' E	<b>L.F.I.R.</b> period 8s fl. 3s, ec. 5s	16 5	8	Dolphin, red daymark; 10.	Visible INTENSIFIED 322°-329°.
9708 B 0662.1	--Rear, 325 meters 325°30' from front	51° 56.2' N 4° 12.9' E	<b>F.R.</b>		10	Mast, platform.	
9716 B 0670.2	-Maassluis, E. mole, head	51° 55.0' N 4° 14.9' E	<b>F.G.</b>	23 7		Post; 16.	
9720 B 0670	--W. mole, head	51° 55.0' N 4° 14.8' E	<b>F.R.</b>	23 7		Post; 16.	
9724 B 0673	-Blankenburg Range, front	51° 54.0' N 4° 16.3' E	<b>Iso.W.</b> period 4s	33 10	12	White tower, black banded; 13.	Visible 274°30'-289°30'. Shown 24 hours.
9728 B 0673.1	--Rear, 260 meters 282° from front	51° 54.0' N 4° 16.1' E	<b>Iso.W.</b> period 4s	59 18	12	White tower, black banded; 39.	Visible 274°30'-289°30'. Synchronized with front. Shown 24 hours.
9732 B 0711.4	-Oude Maas	51° 53.5' N 4° 19.6' E	<b>Iso.W.</b> period 2s			Red and green beacon, red triangular daymark, point down, above green triangular daymark, point up.	
9736 B 0712	--Range, front	51° 52.8' N 4° 19.7' E	<b>Iso.W.</b> period 8s	43 13	15	Post.	Visible 150°-165°. Shown 24 hours.
9740 B 0712.1	--Rear, 115 meters 157°30' from front	51° 52.8' N 4° 19.8' E	<b>Iso.W.</b> period 8s	49 15	15	Post.	Visible 150°-165°. Synchronized with front. Shown 24 hours.
SCHEVENINGEN:							
9748 B 0750	Scheveningen	52° 06.2' N 4° 16.1' E	<b>Fl.(2)W.</b> period 10s fl. 0.2s, ec. 2.3s fl. 0.2s, ec. 7.3s	161 49	29	Brown tower; 98.	
9752 B 0751	-Approach Range, front	52° 06.0' N 4° 15.4' E	<b>Iso.W.</b> period 4s	52 16	14	White mast.	Visible 148°30'-163°30'.
9756 B 0751.1	--Rear, 258 meters 156° from front	52° 05.9' N 4° 15.5' E	<b>Iso.W.</b> period 4s	79 24	14	White mast.	Visible 148°30'-163°30'. Synchronized with front.
9757 B 0753.4	-N. side, outer head	52° 06.0' N 4° 15.6' E	<b>Iso.R.</b> period 8s			Post.	
9757.1 B 0753.45	--Inner head	52° 06.0' N 4° 15.7' E	<b>Iso.R.</b> period 8s				
9758 B 0753.2	-S. side, outer head	52° 05.9' N 4° 15.6' E	<b>Iso.G.</b> period 8s			Post.	
9758.1 B 0753.25	--Inner head	52° 05.9' N 4° 15.6' E	<b>Iso.G.</b> period 8s				
9759 B 0754.8	-2nd Haven, N. side	52° 05.9' N 4° 16.2' E	<b>F.R.</b>				Traffic signal.
9759.1	--S. side	52° 05.9' N 4° 16.2' E	<b>F.G.</b>				
9760 B 0753.1	-Harbor Range, front	52° 05.8' N 4° 15.9' E	<b>Iso.G.</b> period 4s		11	White post.	Shown 24 hours.
9764 B 0753.11	--Rear, 34 meters 131° from front	52° 05.8' N 4° 15.9' E	<b>Iso.G.</b> period 4s		11	White post.	INTENSIFIED in reduced visibility at night. Synchronized with front. Shown 24 hours.
9765 B 0754.05	-1st Haven, S. side	52° 05.9' N 4° 15.8' E	<b>Oc.G.</b> period 6s lt. 4s, ec. 2s				
9766 B 0754	--N. side	52° 05.9' N 4° 15.8' E	<b>Oc.R.</b> period 6s lt. 4s, ec. 2s				
9767	-3rd Haven, W. side	52° 05.9' N 4° 15.6' E	<b>F.R.</b>				

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>THE NETHERLANDS-NORTH SEA</b>							
9768 B 0751.6	-Noorderhoofd, head	52° 06.2' N 4° 15.4' E	F.R.	39 12	9	Red tower, white banded; 28.	
9772 B 0751.4	-Zuiderhoofd, head	52° 06.2' N 4° 15.2' E	F.G.	39 12	9	Green tower, white banded; 28.	
9776 B 0752	-Zuiderbinnenhoofd	52° 06.0' N 4° 15.4' E	Iso.G. period 4s	33 10	5	Post; 13.	
9780 B 0753	-Noorderbinnenhoofd, head	52° 06.1' N 4° 15.5' E	Iso.R. period 4s	33 10	5	Post; 13.	
9782 B 0755	-Promenade Pier, head	52° 07.1' N 4° 16.8' E	Iso.W. period 5s	144 44	5	Concrete tower; 108.	Visible 13°-253°.
9784 B 0760	Noordwijkaan Zee	52° 14.9' N 4° 26.0' E	Oc.(3)W. period 20s	108 33	18	White tower; 84.	
HAVEN VAN IJMUIDEN:							
9792 B 0766	-Entrance Range, front	52° 27.7' N 4° 34.5' E	F.W.R.	102 31	W. 16 R. 13	Brown round tower; 79.	W. 50°-122°, R. -145°, W. -160°. TIDE GAUGE STATION. Tidal and traffic signals. F.W. 5M visible 90°30'-110°30' by day.
9796 B 0766.1	--Rear, 570 meters 100°30' from front	52° 27.7' N 4° 35.0' E	Fl.W. period 5s fl. 0.3s, ec. 4.7s	174 53	29	141	Visible 19°-199°. F.W. 5M visible 90°30'-110°30' by day.
9800 B 0768	-N. breakwater, outer head	52° 28.1' N 4° 32.6' E	F.R.	49 15	10	Red square tower, white banded.	
9804 B 0769	--Inner head	52° 28.0' N 4° 33.2' E	Iso.R. period 8s	39 12	9	Red beacon, white banded.	
9808 B 0767	-S. breakwater, outer head	52° 27.8' N 4° 31.9' E	F.G.	49 15	10	Green square tower, white banded.	Fl.W.G. 3s shown in fog.
9812 B 0770	--Inner head	52° 27.7' N 4° 33.3' E	Iso.G. period 8s	39 12	9	Green beacon, white banded.	
9832 B 0783	-Fish Harbor, W. side of entrance	52° 27.8' N 4° 34.7' E	F.G.	26 8		Post; 19.	Visible 85°-308°. Fog light. Iso.R. 3s warning light and horn when visibility is less than 200m.
9836 B 0784	--E. side of entrance	52° 27.8' N 4° 35.0' E	F.R.	26 8		Post; 18.	Visible 284°-181°. 2 F.Y. shown in fog.
9839 B 0786	--W. side Fort Island	52° 27.8' N 4° 34.4' E	Iso.R. period 6s	23 7			
9840 B 0785	--S. side entrance	52° 27.8' N 4° 33.8' E	F.G.				
9841 B 0786.9	-Midden Sluiseiland	52° 28.0' N 4° 35.5' E	Iso.W. period 2s				
9844 B 0789	-Entrance Range, front	52° 28.2' N 4° 35.6' E	Iso.W. period 3s	26 8		Red and white striped pole.	Visible 31°-121°.
9848 B 0789.1	--Rear, 700 meters 077° from front	52° 28.3' N 4° 36.1' E	Iso.W. period 3s	56 17		Green mast, white daymark.	Visible 31°-121°. Synchronized with front.
9854	-Ijmuiden Approach Buoy	52° 28.7' N 4° 23.9' E	Mo.(A)W. period 8s			SAFE WATER Red spherical buoy, white vertical stripes.	
	RACON		Y(- • - -) period 60s		10		(3 & 10 cm).
9856 B 0800	-Foundry Basin Range, front	52° 28.4' N 4° 36.1' E	Iso.G. period 2s	39 12		Post; 15.	
9860 B 0800.1	--Rear, 150 meters 065° from front	52° 28.5' N 4° 36.2' E	Iso.G. period 2s	56 17		Post; 27.	Synchronized with front.
9864 B 0842	Egmond aan Zee	52° 37.1' N 4° 37.3' E	Iso.W.R. period 10s	121 37	W. 18 R. 14	White tower; 92.	W. 10°-175°, R. -188°.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>THE NETHERLANDS-NORTH SEA</b>							
9868	Platform Helm A, RACON	52° 52.4' N 4° 08.6' E	<b>T(-)</b>		12		(3 & 10 cm).
9870	Logger L-16 Platform, RACON	53° 00.9' N 4° 13.0' E	<b>X(- • • -)</b>		12		Azimuth coverage 60°- 270°.(3 & 10 cm).
9876 B 0849	-Zanddijk	52° 52.9' N 4° 42.9' E	<b>Oc.W.R.G.</b> period 10s	105 32	8	Brown tower; 56.	G. 41°-88°, W. -94°, R. -120°. Red lights on nuclear facility 5.8M 192°.
9878	Schulpengat Fairway Buoy SG	52° 52.9' N 4° 38.0' E	<b>Mo.(A)W.</b> period 8s			SAFE WATER Red column, white vertical stripes, topmark.	
	RACON		<b>Z(- - • •)</b>				(3 & 10 cm).
9880 B 0856	-Huisduinen	52° 57.1' N 4° 43.3' E	<b>F.W.R.</b>	92 28	W. 14 R. 11	Square masonry tower; 59.	W. 70°-113°, R. -158°, W. - 208°.
9884 B 0858	-Kijkduin, rear	52° 57.3' N 4° 43.6' E	<b>Fl.(4)W.</b> period 20s fl. 0.2s, ec. 3.1s fl. 0.2s, ec. 3.1s fl. 0.2s, ec. 3.1s fl. 0.2s, ec. 9.9s	187 57	30	Brown tower; 182.	Obscured by dunes of Texel. In line 253°30' with 9912.
ZEEGAT VAN TEXEL:							
9900 B 0864	-Den Helder Range, front	52° 57.4' N 4° 47.1' E	<b>Oc.G.</b> period 5s lt. 4s, ec. 1s	56 17	3	Building, black triangle, point up daymark.	Visible 183°30'-198°30'.
9904 B 0864.1	--Rear, 275 meters 191° from front	52° 57.2' N 4° 47.0' E	<b>Oc.G.</b> period 5s lt. 4s, ec. 1s	85 26	3	Grey post, platform.	Visible 183°30'-198°30'. Synchronized with front.
9912 B 0865	--Nieuwediep, front, W. breakwater, head	52° 58.0' N 4° 47.1' E	<b>Q.G.</b>	43 13	8	Mast; 22.	In line 253°30' with rear 9884. <b>Horn:</b> 1bl. ev. 20s (bl. 3s, si. 17s)
9924 B 0867	--W. side	52° 57.8' N 4° 47.1' E	<b>Fl.G.</b> period 5s	33 10	4	Square post; 30.	Traffic signal WNW.
9928 B 0867.5	-Nieuwe Haven	52° 57.8' N 4° 47.4' E	<b>Q.R.</b>	33 10	4	Square post; 16.	
9936 B 0870	-E. harbor, head	52° 57.6' N 4° 46.7' E	<b>Oc.R.</b> period 5s lt. 3s, ec. 2s	33 10	4	Mast, red lantern; 16.	
9948 B 0852.1	-Den Hoorn	53° 01.6' N 4° 45.1' E	<b>Dir.W.R.G.</b>	62 19	<b>W. 22 R. 18 G. 18</b>	Church tower.	F.G. 25°6'-25°36', Al.W.G. - 26°18'. F.W. -26°42', Al.W.R. -27°24', F.R. - 27°54'.
9949 B 0877	-Mok Range, front	53° 00.4' N 4° 45.2' E	<b>Iso.W.</b> period 8s	23 7	6	Grey post.	W. 224°30'-344°30'.
9949.1 B 0877.1	--Rear, 245 meters 285° from front	53° 00.4' N 4° 44.9' E	<b>Iso.W.</b> period 8s	36 11	6	Grey post.	W. 224°30'-344°30'. Synchronized with front.
9949.2 B 0876.6	-Kolk, KM/RA2	52° 59.6' N 4° 46.3' E	<b>Fl.(5)Y.</b> period 20s				
9949.3 B 0876.22	-MK2	53° 00.1' N 4° 46.9' E	<b>Fl.(3)Y.</b> period 10s			Yellow post.	
9950 B 0876	--Veerhaven, W. mole, head	53° 00.1' N 4° 47.0' E	<b>F.R.</b>	30 9	5	Red and white post; 11.	
9950.1 B 0876.5	--Range, front	53° 00.2' N 4° 46.9' E	<b>Q.Bu.</b>	56 17			Not visible when ferry is in port.
9950.2 B 0876.501	----Rear, 75 meters 322° from front	53° 00.3' N 4° 46.8' E	<b>F.Bu.</b>	59 18			
9951 B 0876.2	--E. mole, head	53° 00.1' N 4° 47.1' E	<b>F.G.</b>	30 9	4	Green and white post; 11.	F.Y. shown in fog.

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<b>THE NETHERLANDS-NORTH SEA</b>							
9951.1 <i>B 0875</i>	---Range, front	53° 00.2' N 4° 47.0' E	<b>Iso.W.</b> period 5s	39 12	3	Grey round pedestal; 16.	Visible 20° each side of bearing. Synchronized with 9951.2.
9951.2 <i>B 0875.1</i>	---Rear, 87 meters 359°30' from front	53° 00.3' N 4° 47.0' E	<b>Iso.W.</b> period 5s	62 19	3	Grey round pedestal; 33.	Visible 20° each side of bearing. Synchronized with front.
9951.3 <i>B 0876.55</i>	--MK 3	53° 00.0' N 4° 47.2' E	<b>Iso.G.</b> period 4s				
9951.4 <i>B 0877.4</i>	--Nioz Haven, range, front	53° 00.4' N 4° 47.6' E	<b>Oc.G.</b> period 5s	16 5	6	On bridge.	G. 231°30'-291°30'.
9951.5 <i>B 0877.41</i>	---Rear, 46 meters 268° from front	53° 00.4' N 4° 47.5' E	<b>Oc.G.</b> period 5s	23 7	6	Grey post.	G. 231°30'-291°30'.
9951.6 <i>B 0877.5</i>	---S. mole, head	53° 00.3' N 4° 47.8' E	<b>F.R.</b>	20 6	4	Grey post.	
9951.7 <i>B 0877.6</i>	---N. mole, head	53° 00.4' N 4° 47.9' E	<b>F.G.</b>	20 6	3	Grey post.	
9952 <i>B 0859</i>	--Schilbolsnol	53° 00.5' N 4° 45.7' E	<b>F.W.R.G.</b>	92 28	W. 8 R. 3 G. 5	Green post; 69.	W. 333°-26°, G. -33°, W. -38°, R. -70°.
9956 <i>B 0881</i>	--S. mole, head	53° 02.3' N 4° 51.2' E	<b>F.R.</b>	26 8		Red post, white banded; 25.	Fog light. F.R. traffic light.
9960 <i>B 0886</i>	-Eirland.	53° 10.9' N 4° 51.3' E	<b>Fl.(2)W.</b> period 10s fl. 0.2s, ec. 2.3s fl. 0.2s, ec. 7.3s	174 53	29	Red tower; 114.	Obscured by dunes.
VLIELAND:							
9968 <i>B 0894</i>	Vuurduin	53° 17.7' N 5° 03.5' E	<b>Iso.W.</b> period 4s	177 54	20	Red tower; 55.	Visible UNINTENSIFIED 313°-43°.
9972 <i>B 0896</i>	-E. mole, head	53° 17.8' N 5° 05.6' E	<b>F.G.</b>	20 6		Green post, white stripes.	
9976 <i>B 0898</i>	-W. mole, head	53° 17.7' N 5° 05.6' E	<b>F.R.</b>	20 6		Post.	
9977 <i>B 0890</i>	-VL-CENTER LANBY	53° 27.0' N 4° 40.0' E	<b>Fl.W.</b> period 5s		12	SAFE WATER Red and white spherical buoy.	
	RACON		<b>C(- - -)</b>		12		(3 & 10 cm).
9979 <i>A 7581.85</i>	-Wintershall L8-G Platform	53° 34.9' N 4° 36.3' E	<b>Mo.(U)W.</b> period 15s				Horn: Mo.(U) ev. 30s.
			<b>2F.</b>				
	RACON		<b>G(- - -)</b> period 1s		12		Azimuth coverage 180°-340°.(3 & 10 cm).
9979.5	-Platform L2-FA-1, RACON	53° 57.7' N 4° 29.9' E	<b>9()</b>		12		(3 & 10 cm).
ZEEGAT VAN TERSCHELLING:							
9980 <i>B 0904</i>	-Terschelling (Brandaris)	53° 21.6' N 5° 12.9' E	<b>Fl.W.</b> period 5s fl. 0.3s, ec. 4.7s	180 55	29	Yellow tower; 172.	Obscured by dunes on Vlieland and Terschelling. Storm signals. Coast Guard station.
9982 <i>B 0904.5</i>	-N. Terschelling, metering station	53° 25.8' N 5° 20.1' E	<b>Fl.(5)Y.</b> period 20s				Tide gauge.
9984 <i>B 0908</i>	--W. mole, head	53° 21.3' N 5° 13.1' E	<b>F.R.</b>	20 6	5	Red post, white banded.	<b>Horn:</b> 1bl. ev. 15s (bl. 3s, si. 12s)

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>THE NETHERLANDS-NORTH SEA</b>							
9992 B 0912	--E. mole, head	53° 21.3' N 5° 13.2' E	<b>F.G.</b>	16 5	4	Green post, white banded; 16.	
AMELANDER GAT:							
9996 B 0920	-Ameland	53° 26.9' N 5° 37.5' E	<b>Fl.(3)W.</b> period 15s fl. 0.2s, ec. 2.8s fl. 0.2s, ec. 2.8s fl. 0.2s, ec. 8.8s	190 58	30	Brown tower, white banded; 181.	
10000 B 0924	-Nes, mole, head	53° 26.0' N 5° 46.5' E	<b>Iso.W.</b> period 6s	26 8	2	Black building.	
10004 B 0926	-Holwerd, pier, head	53° 23.8' N 5° 52.8' E	<b>Oc.W.</b> period 6s lt. 4s, ec. 2s	23 7	10	Grey post.	
FRIESCHE GAT:							
10008 B 0938	-Schiermonnikoog	53° 29.2' N 6° 08.8' E	<b>Fl.(4)W.</b> period 20s fl. 0.2s, ec. 3.1s fl. 0.2s, ec. 3.1s fl. 0.2s, ec. 3.1s fl. 0.2s, ec. 9.9s	144 44	28	Brown tower; 118.	Coast Guard station.
			<b>F.W.R.</b>	98 30	<b>W. 15</b> R. 12		W. 210°-221°, R. -230°.
10009	Buoy BR/S	52° 55.0' N 3° 18.0' E	<b>Mo.(A)W.</b> period 8s			SAFE WATER Red spherical buoy, white vertical stripes.	
	RACON		<b>G(- - •)</b>				(3 & 10 cm).
10010	NAM K14-FA1 Platform, RACON	53° 16.2' N 3° 37.7' E	<b>7()</b>		12		(3 & 10 cm).
10011	Placid K9C-PA Platform, RACON	53° 39.2' N 3° 52.5' E	<b>-9( )</b>		12		(3 & 10 cm).
10013 A 7682	Elf Petroland Platform, F15- A, RACON	54° 13.0' N 4° 49.7' E	<b>U(••-)</b>				(3 & 10 cm).
10013.1 A 7682.5	NAM F3-OLT Platform, RACON	54° 51.3' N 4° 43.6' E	<b>D(-••)</b>				(3 & 10 cm).
10013.3	Buoy EF	54° 03.5' N 4° 59.8' E	<b>L.FI.W.</b> period 10s			SAFE WATER Red spherical buoy, white vertical stripes.	
	RACON		<b>T(-)</b>				(3 & 10 cm).
10013.5	Buoy EF/B	54° 06.7' N 5° 40.0' E	<b>Fl.(4)Y.</b> period 10s			SPECIAL Yellow spherical buoy.	
	RACON		<b>M(- -)</b>				(3 & 10 cm).
10014 B 1051	GW/EMS LIGHTFLOAT	54° 10.0' N 6° 20.8' E	<b>Iso.W.</b> period 8s	46 14	17	Gw/ems on red hull.	Horn: Mo.(R ) ev. 30s.
	RACON		<b>T(-)</b> period 55s				(3 & 10 cm).
<b>GERMANY-NORTH SEA</b>							
10016	Borkumriff Buoy	53° 47.5' N 6° 22.1' E	<b>Oc.W.</b> period 4s			SAFE WATER Red column, white vertical stripes, topmark.	
	RACON		<b>T(-)</b> period 48s				
10024	Westerems Buoy	53° 37.2' N 6° 19.5' E	<b>Iso.W.</b> period 4s			SAFE WATER Red column, white vertical stripes, topmark.	
	RACON		<b>T(-)</b>		8		

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>GERMANY-NORTH SEA</b>							
10028	Osterems Buoy	53° 42.0' N 6° 36.0' E	<b>Iso.W.</b> period 4s			SAFE WATER White column, topmark, red vertical stripes.	
10032 <i>B 0970</i>	Borkum Grosser	53° 35.3' N 6° 39.7' E	<b>Fl.(2)W.</b> period 12s fl. 0.2s, ec. 2.8s fl. 0.2s, ec. 8.8s	207 63	24	Brown tower; 197.	Visible 107°24'-109°.
			<b>F.W.R.G.</b>	151 46	<b>W. 19</b> <b>R. 15</b> <b>G. 15</b>		G. 107°24'-109°, W. - 111°12', R. -112°36'.
10035 <i>B 0972.5</i>	-Tide gauge	53° 34.6' N 6° 39.7' E	<b>Fl.Y.</b> period 4s	33 10	5	Yellow pile.	
WESTEREMS:							
10040 <i>B 0976</i>	-Fischer Balje	53° 33.2' N 6° 42.9' E	<b>Oc.(2)W.</b> period 16s lt. 3s, ec. 1s lt. 11s, ec. 1s	49 15	4	Red tower, white banded, on tripod; 52.	Visible 260°-123°. Flood light.
10040.5 <i>B 0981</i>	-Die Ems	53° 28.5' N 6° 49.3' E	<b>Fl.(5)Y.</b> period 20s				
10041	-Doekegat beacon 1	53° 27.3' N 6° 51.2' E	<b>Q.W.</b>			N. CARDINAL Black beacon, black topmark, yellow base.	
10041.5	-Doekegat beacon 2	53° 27.0' N 6° 52.0' E	<b>Q.W.</b>			N. CARDINAL Black beacon, black topmark, yellow base.	
WESTEREMS:							
10042 <i>B 0987.2</i>	-Werkhaven, N. mole, head	53° 26.7' N 6° 52.9' E	<b>Fl.(3)Y.</b> period 12s				
10043 <i>B 0987</i>	--S. mole, head	53° 26.5' N 6° 53.1' E	<b>Fl.(3)Y.</b> period 12s				128m chimney with three rings of red lights 700m SSW.
10044 <i>B 0987.4</i>	--Pier, head	53° 26.6' N 6° 53.1' E	<b>Q.W.</b>			N. CARDINAL Black beacon, black topmark, yellow base.	
10045 <i>B 0989</i>	--Tide gauge	53° 26.0' N 6° 55.6' E	<b>Fl.Y.</b> period 4s fl. 1s, ec. 3s	36 11	7	Yellow piles.	
10048 <i>B 0983</i>	Campen	53° 24.3' N 7° 00.9' E	<b>Fl.W.</b> period 5s fl. 0.7s, ec. 4.3s	203 62	29	Red and white tower, tripod, two galleries, white central column, green cupola; 213.	Visible 126°18'-126°48'.
			<b>F.W.</b>		30		Visible 126°48'-127°6'.
			<b>Fl.(4)W.</b> period 15s fl. 0.7s, ec. 2.3s fl. 0.7s, ec. 2.3s fl. 0.7s, ec. 2.3s fl. 0.7s, ec. 5.3s		29		Visible 127°6'-127°36'.
10052 <i>B 1010</i>	-Knock	53° 20.3' N 7° 01.4' E	<b>F.W.R.G.</b>	92 28	W. 12 R. 9 G. 8	Grey tower, white spherical radome; 180.	W. 270°-299°, R. -8°18', G. - 23°, W. -26°48', R. -39°, W. -73°, R. -119°, W. - 154°.
10053 <i>B 1044</i>	Memmert	53° 37.5' N 6° 54.6' E	<b>Fl.Y.</b> period 4s	16 5		Yellow column.	
10054 <i>B 1046</i>	Leysiel	53° 32.2' N 7° 02.4' E	<b>F.W.R.G.</b>	33 10	W. 8 R. 6 G. 5	Pile.	G. 156°-164°, W. -166°, R. - 174°.
10055	Emder Fahrwasser	53° 19.5' N 7° 05.0' E	<b>Fl.Y.</b> period 4s				
10056 <i>B 1012</i>	Wybelsum	53° 20.2' N 7° 06.5' E	<b>F.W.R.</b>	52 16	W. 6 R. 4	White tower, red banded, lantern, radome; 61.	W. 295°-320°, R. -24°, W. - 49°.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>GERMANY-NORTH SEA</b>							
10060 <i>B 1052</i>	GERMAN BIGHT LIGHTFLOAT	54° 10.7' N 7° 26.1' E	<b>Iso.W.</b> period 8s		17	Red hull; 39.	Flood light. <b>Horn:</b> Mo.(R ) ev. 30s
NORDERNEY:							
10072 <i>B 1054</i>	-Near center of island	53° 42.6' N 7° 13.8' E	<b>Fl.(3)W.</b> period 12s fl. 0.2s, ec. 2.8s fl. 0.2s, ec. 2.8s fl. 0.2s, ec. 5.8s	194 59	23	Red tower; 177.	Unintensified 67°-77° and 270°-280°.
10092 <i>B 1074</i>	-Fish Harbor, S. mole, head	53° 41.9' N 7° 09.9' E	<b>Oc.(2)R.</b> period 9s	43 13	4	Red tower, white banded; 36.	
NORDEICH:							
10100 <i>B 1078</i>	-W. wall, N. head	53° 38.7' N 7° 09.0' E	<b>F.G.</b>	26 8	4	Green latticed tower; 30.	Visible 21°-327°.
10104 <i>B 1080</i>	-E. wall, N. head	53° 38.8' N 7° 09.0' E	<b>F.R.</b>	26 8	4	Red latticed tower; 26.	Visible 327°-237°. F.W. 115°-270° shown in fog.
10108 <i>B 1082</i>	-Range, front	53° 38.4' N 7° 09.4' E	<b>Iso.W.R.</b> period 6s	20 6	W. 6 R. 4	Grey pile, platform; 23.	R. 78°-122°, W. -150°.
10112 <i>B 1082.1</i>	--Rear, 133 meters 144° from front	53° 38.3' N 7° 09.5' E	<b>Iso.W.</b> period 6s	30 9	6	Grey pile, platform; 33.	Synchronized with front.
10116 <i>B 1084</i>	-1,463 meters from N. end of E. wall Range, front	53° 38.5' N 7° 09.2' E	<b>Iso.W.R.</b> period 3s	16 5	W. 6 R. 4	Grey pile, platform; 23.	W. 340°-22°30', R. -98°.
10120 <i>B 1084.1</i>	--Rear, 110 meters 350° from front	53° 38.5' N 7° 09.2' E	<b>Iso.W.</b> period 3s	26 8	6	Grey pile, platform; 33.	Synchronized with front.
10124 <i>B 1092</i>	-Langeoog, W. mole, head	53° 43.5' N 7° 30.1' E	<b>Oc.W.R.G.</b> period 6s lt. 5s, ec. 1s	26 8	W. 7 R. 5 G. 4	Red mast, lantern; 13.	G. 64°-70°, W. -74°, R. -326°, W. -330°, G. -335°, R. - 64°. <b>Horn:</b> 1bl. ev. 30s (bl. 9s, si. 21s)
10128 <i>B 1096.5</i>	-Spiekeroog	53° 45.0' N 7° 41.3' E	<b>F.R.</b>	20 6	4	Red post, platform; 23.	Visible 197°-114°.
10136 <i>B 1312</i>	-Helgoland	54° 10.9' N 7° 52.9' E	<b>Fl.W.</b> period 5s fl. 0.1s, ec. 4.9s	269 82	28	Brown square tower, white cupola, antenna; 111.	F.R. on radio masts 0.1 mile SSE. and 0.4 mile NNW.
10140	-Approach Whistle Buoy	54° 09.0' N 7° 54.0' E	<b>Q.(3)W.</b> period 10s			E. CARDINAL Black column, black topmark, yellow banded, black base.	
10148 <i>B 1326</i>	-Dune entrance Range, front	54° 10.9' N 7° 54.8' E	<b>Iso.W.</b> period 4s	36 11	8	Red mast, white banded, platform, red triangle, point up daymark; 46.	
10152 <i>B 1326.1</i>	--Rear, 120 meters 019°36' from front	54° 10.9' N 7° 54.8' E	<b>Iso.W.R.G.</b> period 4s	56 17	W. 11 R. 10 G. 10	Red tower, white banded; 49.	G. 106°-125°, W. -130°, R. - 144°, G. 10°-18°30', W. - 21°, R. -30°. Synchronized with front.
10156 <i>B 1318</i>	--E. mole, S. elbow	54° 10.4' N 7° 54.0' E	<b>Oc.W.G.</b> period 6s lt. 5s, ec. 1s	16 5	W. 6 G. 3	Grey mast; 7.	W. 203°-250°, G. -109°.
10160 <i>B 1318.2</i>	--Head	54° 10.4' N 7° 53.9' E	<b>F.G.</b>	23 7	3	Grey mast; 7.	Visible 289°-180°.
10164 <i>B 1320</i>	--S. mole, head	54° 10.3' N 7° 54.0' E	<b>Oc.(2)R.</b> period 12s lt. 3s, ec. 1s lt. 7s, ec. 1s	23 7	4	Red mast; 7.	Visible 101°-334°.
<b>F.R.</b>							
10168 <i>B 1324</i>	--Entrance Range, front	54° 10.8' N 7° 53.4' E	<b>Oc.R.</b> period 6s lt. 5s, ec. 1s	26 8	6	Red mast, white banded, red triangle, point up daymark; 23.	
10172 <i>B 1324.1</i>	--Rear, 50 meters 302°12' from front	54° 10.8' N 7° 53.4' E	<b>Oc.R.</b> period 6s lt. 5s, ec. 1s	33 10	6	Red mast, white banded, red triangle, point down daymark; 20.	Synchronized with front.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>GERMANY-NORTH SEA</b>							
10176 B 1325	--S. side of entrance	54° 10.7' N 7° 53.5' E	<b>F.W.R.</b>	16 5	W. 6 R. 4	Red mast; 10.	R. 40°-238°, W. -270°.
10180 B 1325.2	--N. side of entrance	54° 10.8' N 7° 53.5' E	<b>F.W.G.</b>	16 5	W. 6 G. 3	Green mast; 7.	W. 248°-254°, G. -102°.
10184 B 1328	-Dunenhafen, W. mole, head	54° 11.0' N 7° 54.3' E	<b>F.R.</b>	16 5	4	Red mast; 7.	Visible 294°-172°.
10188	-Sellebrunn Buoy	54° 14.0' N 7° 50.0' E	<b>Q.(9)W.</b> period 15s			W. CARDINAL Yellow column, black topmark, black banded, yellow base.	
10192 B 1112	Wangerooge	53° 47.4' N 7° 51.4' E	<b>F.I.R.</b> period 5s fl. 0.1s, ec. 4.9s	210 64	<b>23</b>	Red round tower, white banded; 210.	
			<b>F.W.R.</b>	79 24	<b>W. 15</b> R. 11		W. 55°-60°, R. -65°30', W. - 71°.
			<b>F.W.R.G.</b>	79 24	<b>W. 22</b> R. 17 G. 18		G. 119°24'-138°48', W. - 152°12', R. -159°54'.
10193 B 1113	-W. embankment, head	53° 46.3' N 7° 51.9' E	<b>F.R.</b>	10 3	4	Red piles; 10.	
10194 B 1113.2	-E. embankment, head	53° 46.5' N 7° 52.1' E	<b>F.G.</b>	10 3	3	Green piles; 10.	
10212 B 1138	-Voslapp Range, front	53° 37.2' N 8° 06.8' E	<b>Iso.W.</b> period 6s	49 15	<b>24</b>	Red round tower, white banded; 56.	
10216 B 1138.1	--Rear, 4.3 km. 164°30' from front	53° 34.9' N 8° 07.9' E	<b>Iso.W.</b> period 6s	200 61	<b>27</b>	White round concrete tower, red banded; 201.	Synchronized with front.
10220 B 1139	-Niedersachsenbrücke Range, front	53° 34.9' N 8° 09.4' E	<b>F.W.</b>	33 10	4	Black latticed tower, white red triangle, point up daymark; 36.	Range lit for arrival and departure maneuvers only.
10224 B 1139.1	--Rear, 15 meters 298° from front	53° 34.9' N 8° 09.4' E	<b>F.W.</b>	43 13	4	Black latticed tower, white red triangle, point down daymark; 46.	Range lit for arrival and departure maneuvers only.
10248 B 1134	-Tossens Range, front	53° 34.5' N 8° 12.3' E	<b>Oc.W.</b> period 6s lt. 4.5s, ec. 0.5s	49 15	<b>20</b>	White tower, red banded; 59.	
10248.1 B 1134.1	--Rear, about 3850 meters 146° from front	53° 32.8' N 8° 14.3' E	<b>Oc.W.</b> period 6s	167 51	<b>20</b>	Red tower, white banded, three galleries; 174.	
10264 B 1156	-Vorhafen, Entrance Range, front	53° 31.8' N 8° 09.6' E	<b>Iso.W.</b> period 4s	56 17	11	Grey mast; 33.	On center wall of lock.
10268 B 1156.1	--Rear, 180 meters 207°48' from front	53° 31.7' N 8° 09.5' E	<b>Iso.W.</b> period 4s	75 23	11	Piles.	
10272 B 1158	-W. mole, head	53° 32.5' N 8° 10.1' E	<b>Oc.G.</b> period 6s lt. 4.5s, ec. 1.5s	49 15	4	Green mast; 39.	
10276 B 1159	-E. mole, head	53° 32.4' N 8° 10.3' E	<b>Oc.R.</b> period 6s lt. 4.5s, ec. 1.5s	49 15	5	Red mast; 43.	Flood light.
10284 B 1163	-N. mole, head	53° 30.9' N 8° 09.3' E	<b>F.W.G.</b>	30 9	W. 6 G. 3	Green piles.	W. 216°-280°, G. -10°, W. - 20°, G. -130°.
10288 B 1164	-Mole, head	53° 30.8' N 8° 09.2' E	<b>F.R.</b>	20 6	5	Red piles.	
10292 B 1166	-N. mole, angle	53° 30.8' N 8° 08.8' E	<b>F.G.</b>	20 6	3	Green piles; 20.	
10296 B 1168	-S. mole, head	53° 30.8' N 8° 08.7' E	<b>F.R.</b>	16 5	4	Red piles; 16.	

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<b>GERMANY-NORTH SEA</b>							
10300 B 1152	-Arngast Sand	53° 28.9' N 8° 10.9' E	<b>F.W.R.G.</b>	98 30	<b>W. 21</b> <b>R. 16</b> <b>G. 17</b>	Red round tower, two galleries, white banded; 118.	W. 135°-142°, G. -150°, W. -152°, G. -174°36', R. 180°30'-191°, W. -213°, R. -225°, W. UNINTENSIFIED286°-303°, G. UNINTENSIFIED-314°.
			<b>FI.W.G.</b> period 3s fl. 0.8s, ec. 2.2s				G. 174°36'-175°30', W. -176°24'.
			<b>FI.(2)W.</b> period 9s fl. 0.8s, ec. 2.2s fl. 0.8s, ec. 5.2s				Visible 177°24'-180°30'.
			<b>Oc.W.</b> period 6s lt. 5s, ec. 1s		<b>20</b>		Visible 176°24'-177°24'.
10302	-Jade~Weser Buoy	53° 58.3' N 7° 38.8' E	<b>Oc.W.</b> period 4s			SAFE WATER Red column, white vertical stripes, topmark.	
	RACON		<b>T(-)</b>		<b>8</b>		(3 & 10 cm).
	WESER RIVER:						
10304	-Jade 2 Buoy	53° 52.1' N 7° 47.3' E	<b>FI.(2+1)G.</b> period 15s			PREFERRED CHANNEL PORT (IALAA) Green column, red banded, topmark.	
	RACON		<b>T(-)</b>		<b>7</b>		
10308 B 1188	-Alte Weser	53° 51.8' N 8° 07.7' E	<b>F.W.R.G.</b>	108 33	<b>W. 23</b> <b>R. 19</b> <b>G. 18</b>	Red tower, black base, red and white gallery, green lantern, radar antenna; 125.	W. 288°-352°, R. -3°, W. -17° (leading sector), G. -45°, W. -74°, G. -121°, W. -126° (leading sector), R. -140°, G. -175°, W. -183°, R. -196°, W. -238°. Flood light. <b>Horn:</b> 1bl. ev. 60s (bl. 17s, si. 43s)
10316 B 1122	-Mellumplate	53° 46.3' N 8° 05.6' E	<b>FI.W.</b> period 4s fl. 1s, ec. 3s	92 28	<b>23</b>	Red square tower, white banded, round base, gallery; 105.	Visible 115°12'-116°6', Helicopter platform.
			<b>Mo.(A)W.</b> period 7.5s		<b>23</b>		Visible 117°12'-118°24'.
			<b>F.W.</b>		<b>24</b>		Visible 114°-115°12'.
			<b>Mo.(N)W.</b> period 7.5s		<b>23</b>		Visible 116°24'-117°12'.
			<b>FI.(4)W.</b> period 15s fl. 1s, ec. 2s fl. 1s, ec. 2s fl. 1s, ec. 2s fl. 1s, ec. 5s		<b>23</b>		Visible 116°6'-116°24'.
10320 B 1196	Tegeler Plate	53° 47.9' N 8° 11.5' E	<b>Oc.(3)W.R.G.</b> period 12s lt. 2s, ec. 1s lt. 2s, ec. 1s lt. 5s, ec. 1s	69 21	<b>W. 21</b> <b>R. 18</b> <b>G. 17</b>	Red round tower, platform, red and white lantern; 79.	W. 329°-340°, R. -14°, W. -100°, G. -116°, W. -119°, R. -123°, G. -148°18', W. -150°18', R. -264°.
10324 B 1198	-Hohe Weg	53° 42.7' N 8° 14.6' E	<b>F.W.R.G.</b>	95 29	<b>W. 17</b> <b>W. 15</b> R. 14 G. 13	Red octagonal tower, two galleries, green lantern, radar antenna; 112.	W. 102°-138°30', G. -142°30', W. INTENSIFIED-145°30', R. -184°, W. -278°30'.
10328 B 1225	Dwarsgat Range, front	53° 43.1' N 8° 18.5' E	<b>Iso.W.</b> period 6s	52 16	<b>17</b>	Red piles, white banded, gallery, red lantern, two triangular topmarks, points together; 62.	
10332 B 1225.1	--Rear, about 1.3 km. 320°06' from front	53° 43.6' N 8° 17.7' E	<b>Iso.W.</b> period 6s	115 35	<b>18</b>	Red piles, white banded, gallery, red lantern, two triangular topmarks, points together; 128.	
	WESER RIVER:						

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>GERMANY-NORTH SEA</b>							
10335 B 1204	-Fedderwarder	53° 42.3' N 8° 20.0' E	<b>Fl.Y.</b> period 4s				Tide gauge.
10336 B 1210	-Robbennordsteert	53° 42.1' N 8° 20.4' E	<b>F.W.R.</b>	36 11	W. 10 R. 8	Red pile, gallery, green roof, black tripod, lantern; 52.	W. 324°-4°, R. -90°, W. - 121°.
10340 B 1214	-Robbenplate Range, front	53° 40.9' N 8° 23.0' E	<b>Oc.W.</b> period 6s lt. 4.5s, ec. 1.5s	52 16	18	Red pile, tripod, red triangle, point up daymark; 49.	
10344 B 1214.1	--Rear, about 1 km. 122°18' from front	53° 40.6' N 8° 23.8' E	<b>Oc.W.</b> period 6s lt. 4.5s, ec. 1.5s	121 37	19	Red square tower, three galleries, signal mast; 121.	Synchronized with front.
WESER RIVER:							
10350 B 1226	-Langlutjen, NW	53° 40.4' N 8° 21.7' E	<b>Fl.Y.</b> period 4s				Tidal gauge.
10352 B 1228	-Langlutjen Sand Range, front	53° 39.6' N 8° 22.8' E	<b>Oc.W.</b> period 6s lt. 5s, ec. 1s	49 15	13	Black mast, black and white gallery, lantern; 62.	
10356 B 1228.1	--Rear, 961 meters 305°12' from front	53° 39.9' N 8° 22.1' E	<b>Oc.W.</b> period 6s lt. 5s, ec. 1s	102 31	14	Black piles, white gallery, black lantern; 112.	Synchronized with front.
10360 B 1224	-Wremer Loch Range, front, NE. side of Langlutjen Sands	53° 38.4' N 8° 25.1' E	<b>Iso.W.</b> period 6s	49 15	13	Black pile, white banded, black gallery, green lantern; 56.	
10364 B 1224.1	--Rear, about 968 meters 140°06' from front	53° 38.0' N 8° 25.6' E	<b>Iso.W.</b> period 6s	102 31	15	Black pile, white banded, black gallery, green lantern; 108.	<b>Radar reflector.</b>
10368 B 1239	-Solthorn Range, front	53° 38.3' N 8° 27.3' E	<b>Iso.W.</b> period 4s	49 15	15	Red pile, white banded, two red galleries; 66.	
10372 B 1239.1	--Rear, 700 meters 320°36' from front	53° 38.6' N 8° 26.9' E	<b>Iso.W.</b> period 4s	102 31	17	Red pile, white banded, two red galleries; 118.	Synchronized with front.
WESER RIVER:							
10375 B 1241	-Wremer Tief	53° 37.8' N 8° 28.3' E	<b>Fl.Y.</b> period 4s				Tide gauge.
10376 B 1240	-Hofe Range, front	53° 37.0' N 8° 29.7' E	<b>Oc.W.</b> period 6s lt. 5s, ec. 1s	52 16	15	Red pile, white banded, red spherical lantern; 75.	
10380 B 1240.1	--Rear, 1.3 km. 330°48° from front	53° 37.6' N 8° 29.1' E	<b>Oc.W.</b> period 6s lt. 5s, ec. 1s	118 36	18	Red pile, white banded, two red spherical galleries; 141.	Synchronized with front.
10381 B 123	-Imsum Range, front	53° 36.5' N 8° 30.2' E	<b>Iso.W.</b> period 4s	69 21	13	Red pile, white banded, red triangle, point up daymark; 85.	
10382 B 1230.1	--Rear, 897 meters 125°12' from front	53° 36.2' N 8° 30.9' E	<b>Iso.W.</b> period 4s	128 39	15	Red pile, white banded, red triangle, point down daymark; 148.	Synchronized with front.
BREMERHAVEN:							
10388 B 1257	-Fischeriehafen Range, common front	53° 31.9' N 8° 34.5' E	<b>Oc.W.</b> period 6s lt. 5s, ec. 1s	56 17	19	White column, red conical lantern, point down; 36.	
10388.1 B 1256.9	--Rear, 1272 meters 150°48' from front	53° 31.3' N 8° 35.1' E	<b>Oc.W.</b> period 6s lt. 5s, ec. 1s	148 45	19	Red and white column, two conical galleries; 144.	Synchronized with front.
10389.1 B 1257.1	--Rear, 344 meters 053°54' from front	53° 32.0' N 8° 34.8' E	<b>Oc.W.</b> period 6s lt. 5s, ec. 1s	92 28	13	Red and white column, red conical lantern; 82.	Synchronized with front.
10390 B 1256.5	-Blexen-Reede	53° 31.6' N 8° 34.3' E	<b>F.Y.</b>			Piles.	
10392 B 1258	-N. Lock	53° 33.9' N 8° 32.9' E	<b>F.R.</b>	43 13	7	Red mast; 43.	<b>Horn:</b> 1bl. ev. 60s (bl. 13s, si. 47s)
10396 B 1260	--On quay	53° 33.8' N 8° 33.0' E	<b>F.G.</b>	49 15	4	Green mast; 49.	

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>GERMANY-NORTH SEA</b>							
10400 B 1262	--On mole, N. side of entrance to locks	53° 33.3' N 8° 33.5' E	<b>F.R.</b>	49 15	6	Red mast; 36.	
10404 B 1264	--S. side of entrance to Kaiserhafen	53° 33.1' N 8° 33.6' E	<b>F.G.</b>	52 16	6	Mast.	<b>Horn:</b> 1bl. ev. 60s (bl. 11s, si. 49s)
10406 B 1264.6	--SE. side of entrance	53° 33.1' N 8° 33.6' E	<b>F.Y.</b>	23 7		Yellow pile.	
10408 B 1268	--Bremerhaven Range, front, S. mole	53° 32.7' N 8° 34.2' E	<b>Iso.W.</b> period 4s	69 21	8	Red conical tower, white banded, gallery, ball at top; 85.	
10412 B 1268.1	--Rear, NE. side of entrance, 208 meters 006° from front	53° 32.8' N 8° 34.2' E	<b>Iso.W.</b> period 4s	115 35	8	Brown square tower, green roof; 121.	Synchronized with front.
10416 B 1274	-Old Harbor entrance, Geeste N. mole	53° 32.2' N 8° 34.5' E	<b>F.W.R.</b>	49 15	6	Black mast; 10.	R. 245°-166°.
10420 B 1275	-Harbor entrance, S. mole, head	53° 32.1' N 8° 34.5' E	<b>F.G.</b>	49 15	5	Green latticed tower; 46.	Visible 355°-265°.
<b>BREMEN</b>							
10422 B 1297.17	-Klippkanne, N	53° 21.5' N 8° 29.8' E	<b>F.W.R.G.</b>	20 6	3	Black post, lantern; 10.	R. 175°54'-205°54', W. - 220°54', G. -310°54'.
10422.1 B 1297.18	--S	53° 21.2' N 8° 29.9' E	<b>F.W.R.G.</b>	20 6	3	Black post, lantern; 10.	G. 215°54'-305°54', W. - 325°54', R. -355°54'.
10423 B 1298	-Brake	53° 19.8' N 8° 29.2' E	<b>Iso.W.R.G.</b> period 4s	49 15	W. 9 R. 7 G. 6	Red column, white banded, gallery; 43.	R. 351°30'-352°30', W. - 356°, G. -358°.
<b>ELBE RIVER ENTRANCE:</b>							
10424	-Elbe Buoy	53° 60.0' N 8° 06.5' E	<b>Iso.W.</b> period 10s			SAFE WATER Red column, white banded, topmark.	<b>Horn:</b> Mo.(R) ev. 30s
	RACON		<b>T(-)</b>		8		(3 & 10 cm). <b>Horn:</b> Mo.(R) ev. 30s
10436 B 1344	-Neuwerk	53° 54.9' N 8° 29.7' E	<b>F.W.</b>	125 38	3	Red square tower, black roof; 128.	Private.
10439 B 1348.49	-Gelbsand Range, front	53° 58.3' N 8° 37.5' E	<b>Iso.W.</b> period 4s	82 25	17	White round tower, black banded.	
10439.1 B 1348.5	--Rear, 1600 meters 331°12' from front	53° 59.1' N 8° 36.8' E	<b>Iso.W.</b> period 4s	164 50	20	White round tower, black banded.	
10442.1 B 1349.8	-Cuxhaven, NW, G(23)	53° 54.8' N 8° 40.1' E	<b>F.W.</b>			Green and white post; 75.	<b>Radar reflector.</b>
10442.2 B 1349.9	--V(23)	53° 55.2' N 8° 41.2' E	<b>F.W.</b>			Red and white post; 75.	<b>Radar reflector.</b>
<b>CUXHAVEN:</b>							
10445 B 1361.1	-Altenbruch Range, common front	53° 50.0' N 8° 47.7' E	<b>Iso.W.</b> period 8s	62 19	19	White round tower, black top, black banded, gallery.	
			<b>Iso.W.R.G.</b> period 8s		W. 8 R. 9 G. 8		G. 117°30'-124°, W. -135°, R. -140°.
10445.1 B 1361	--Rear, 2490 meters 261° from common front	53° 49.8' N 8° 45.5' E	<b>Iso.W.</b> period 8s	167 51	22	Black round tower, black top, white banded; 194.	Synchronized with 10445.
10446 B 1361.2	--Wehldorf rear, 595 meters 130°48' from common front	53° 49.8' N 8° 48.1' E	<b>Iso.W.</b> period 8s	102 31	11	Black round tower, white banded, black top; 95.	Synchronized with 10445.
10448 B 1363	-Neuer Fahrhafen, W. mole, head	53° 52.7' N 8° 42.2' E	<b>F.W.G.</b>	23 7	W. 6 G. 3	Green piles, platform.	G. 125°-349°, W. -125°.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>GERMANY-NORTH SEA</b>							
10452 B 1363.2	-Ferry pier, head	53° 52.6' N 8° 42.3' E	<b>F.W.R.</b>	23 7	W. 6 R. 4	Red platform with platform.	R. 117°-336°, W. -117°.
10460 B 1368	--W. mole, head	53° 52.3' N 8° 42.8' E	<b>F.W.G.</b>	20 6	W. 4 G. 2	Green latticed tower, platform.	G. 125°-344°, W. -125°.
10464 B 1370	--SE. mole, head	53° 52.2' N 8° 42.8' E	<b>F.W.R.</b>	23 7	W. 6 R. 4	Red latticed tower, platform.	R. 124°-8°, W. -124°.
10468 B 1374	--Steubenhof	53° 52.0' N 8° 43.1' E	<b>Oc.W.G.</b> period 4s lt. 3s, ec. 1s	39 12	W. 5 G. 3	Green round tower, platform; 33.	G. 122°-338°, W. -122°.
10502 B 1396	Otterndorf/Belum Range, common front	53° 50.1' N 8° 56.1' E	<b>Iso.W.</b> period 4s	75 23	<b>18</b>	White round tower, red banded, red conical top; 82.	
10502.1 B 1395.9	-Belum, rear, 1340 meters 092°48' from common front	53° 50.1' N 8° 57.4' E	<b>Iso.W.</b> period 4s	148 45	<b>18</b>	White round tower, red banded, red conical top; 144.	
10502.2 B 1396.1	-Otterndorf, rear, 2512 meters 245°30' from common front	53° 49.6' N 8° 54.1' E	<b>Iso.W.</b> period 4s	164 50	<b>21</b>	White round tower, red banded, red conical top; 171.	
10503 B 1396.2	--NW	53° 50.1' N 8° 52.2' E	<b>Fl.(5)Y.</b> period 20s			Yellow post.	Tide gauge.
10519 B 1411	Osteriff	53° 51.4' N 9° 01.9' E	<b>Fl.(5)Y.</b> period 20s			Yellow post.	Tide gauge.
10520 B 1412	Balje Range, front	53° 51.3' N 9° 02.6' E	<b>Iso.W.</b> period 8s	79 24	<b>17</b>	White round tower, red banded.	
10524 B 1412.1	-Rear, about 2460 meters 081° from front	53° 51.5' N 9° 04.8' E	<b>Iso.W.</b> period 8s	177 54	<b>21</b>	White round tower, red banded.	Visible either side of range line (sector unspecified).
10525 B 1414	Brunsbüttel	53° 52.5' N 9° 07.4' E	<b>Fl.(5)Y.</b> period 20s				Tide gauge.
10528 B 1416	Schleuseninsel Range, front	53° 53.3' N 9° 08.5' E	<b>Iso.W.</b> period 3s	79 24	<b>16</b>	White tower, red banded; 79.	
10532 B 1416.1	Industriegebiet, rear, about 1.63 km. 065°30' from front	53° 53.7' N 9° 09.8' E	<b>Iso.W.</b> period 3s	151 46	<b>21</b>	White tower, red banded; 161.	Synchronized with front.
BRUNSBÜTTEL:							
10552 B 1438	--New entrance, N. mole, head	53° 53.3' N 9° 07.5' E	<b>F.W.R.</b>	43 13	W. 10 R. 8	White tower, red banded; 43.	R. 275°30'-79°, W. -81°30'. F.W. shown in fog.
10556 B 1431	--Elbehafen, W. Range, front	53° 53.4' N 9° 10.0' E	<b>L.FI.W.</b> period 8s fl. 2s, ec. 6s	33 10	10	Grey mast, red and white diamond daymark.	
10560 B 1431.1	---Rear, 50 meters 360° from front	53° 53.4' N 9° 10.0' E	<b>L.FI.W.</b> period 8s fl. 2s, ec. 6s	43 13	10	Grey mast, red and white diamond (rhombus) daymark.	Synchronized with front.
10564 B 1436	---S. mole, head	53° 53.3' N 9° 08.1' E	<b>Iso.Y.</b> period 2s	43 13			
10568 B 1442	--Old entrance, N. mole, head	53° 53.3' N 9° 08.2' E	<b>F.W.R.G.</b>	46 14	W. 12 R. 12 R. 10 G. 12 G. 10	Red tower, white roof; 43.	G. UNINTENSIFIED-22°-73°, G. -82°, W. -84°, R. -90°, R. UNINTENSIFIED-22°. Flood light. <b>Horn:</b> 1bl. ev. 10s (bl. 3s, si. 7s)
10569 B 1444	---S. mole, head	53° 53.3' N 9° 08.6' E	<b>F.W.G.</b>	46 14	W. 10 G. 6	White tower, white roof, black banded, black gallery.	W. 266°18'-273°54', G. - 88°48'. F.W. shown in fog. Flood light.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>GERMANY-NORTH SEA</b>							
10572 B 1425	Hochdonn Ferry Bridge	54° 01.0' N 9° 17.8' E	<b>4F.W.</b> (horiz.)			Bridge.	4 F.W. (horiz.) marks center. Vertical clearance 40 meters.
10573 B 1428	Beldorf Bridge	54° 07.5' N 9° 19.8' E	<b>4F.W.</b> (horiz.)			Bridge.	4 F.W. (horiz.) marks center. Vertical clearance 40 meters.
ELBE RIVER ENTRANCE:							
10574 B 1454	-St. Margarethen/ Scheelenkuhlen, range, common front	53° 52.9' N 9° 15.7' E	<b>Iso.W.</b> period 8s	66 20	<b>18</b>	Red cylindrical tower, white banded; 75.	Visible INTENSIFIED 89°12' and 311°48'.
10574.1 B 1453.9	-St. Margarethen, rear, 0.58M 311°48' from front	53° 53.2' N 9° 14.9' E	<b>Iso.W.</b> period 8s	118 36	<b>19</b>	Red cylindrical tower, white banded; 121.	Synchronized with 10574.
10574.2 B 1454.1	-Scheelenkuhlen, rear, 1M 089°12' from front	53° 52.9' N 9° 17.3' E	<b>Iso.W.</b> period 8s	144 44	<b>22</b>	Red cylindrical tower, white banded; 154.	Synchronized with 10574.
10575 B 1474	-Ruthensand Range, front	53° 43.2' N 9° 25.4' E	<b>Dir.Oc.W.R.G.</b> period 6s lt. 4.5s, ec. 1.5s	49 15	<b>W. 15</b> <b>R. 12</b> <b>G. 11</b>	Red tower, white banded, lantern; 49.	G. 170°-174°48'; W. -176°6', R. -182°.
			<b>Iso.W.</b> period 4s		9		
10575.1 B 1474.1	--Rear, 1005 meters 161°36' from front	53° 43.2' N 9° 25.4' E	<b>Iso.W.</b> period 4s	98 30	11	Red tower, white banded, lantern; 98.	Synchronized with front.
10575.2 B 1499	-Grauert	53° 40.8' N 9° 29.7' E	<b>Fl.(5)Y.</b> period 20s			Dolphin.	Tide gauge.
10576 B 1352	Friedrichskoog Harbor	53° 59.5' N 8° 50.7' E	<b>F.W.</b>	23 7	6	Black latticed tower, platform; 23.	
10578 B 1578.6	Kohlfleethafen, rear, 099°42' from front	53° 32.3' N 9° 53.1' E	<b>Iso.W.R.</b> period 4s	26 8	<b>W. 5</b> <b>R. 3</b>	Red piles, red and white triangle, point down daymark.	R. 86°42'-99°42', W. -110°42'. Unlit front daymark 20 meters from rear.
ELBE RIVER ENTRANCE:							
10579 B 1574.35	-Berth E12	53° 32.7' N 9° 50.4' E	<b>Iso.W.</b> period 8s	33 10	3	Red dolphin.	
10579.1 B 1595.6	-Moorburger Weide	53° 29.6' N 9° 57.4' E	<b>Dir.Iso.W.R.G.</b> period 6s	115 35	<b>W. 7</b> <b>R. 5</b> <b>G. 4</b>	White tower, black banded.	G. 136°12'-138°12', W. -140°12', R. -142°12'.
BUSUM:							
10580 B 1606	-Fishing harbor, W. side	57° 07.7' N 8° 51.6' E	<b>Iso.W.R.</b> period 6s	72 22	<b>W. 19</b> <b>R. 12</b>	Red tower, white banded; 72.	W. 248°-317°, R. -24°, W. -148°.
10584 B 1609	-W. pier, head	54° 07.2' N 8° 51.6' E	<b>Oc.(3)R.</b> period 12s lt. 2s, ec. 1s lt. 2s, ec. 1s lt. 5s, ec. 1s	33 10	4	Red tower; 20.	Visible 186°-120°. Flood light. F.W. visible 315°-116° shown in fog.
10592 B 1610	--Starboard side	54° 07.2' N 8° 51.7' E	<b>Oc.(3)G.</b> period 12s lt. 2s, ec. 1s lt. 2s, ec. 1s lt. 5s, ec. 1s	33 10	4	Green tower; 30.	Visible 260°-168°. Flood light.
10596 B 1624	Saint Peter	54° 17.2' N 8° 39.1' E	<b>L.Fl.(2)W.R.</b> period 15s fl. 2s, ec. 3s fl. 2s, ec. 8s	75 23	<b>W. 16</b> <b>R. 13</b>	Brown tower, black lantern; 59.	R. 280°-282°, W. -334°, R. -52°, W. -80°, R. -91°, W. -120°.
10600 B 1652	Westerheversand	54° 22.4' N 8° 38.4' E	<b>Oc.(3)W.R.G.</b> period 15s lt. 2s, ec. 1s lt. 2s, ec. 1s lt. 8s, ec. 1s	135 41	<b>W. 21</b> <b>R. 17</b> <b>G. 16</b>	Red tower, white banded; 131.	W. 12°12'-69°, G. -85°, W. -86°, R. -107°, W. -150°, R. -207°, W. -233°, R. -248°.
10604 B 1672	Suderoogsand	54° 25.5' N 8° 28.7' E	<b>Iso.W.R.</b> period 6s	59 18	<b>W. 16</b> <b>R. 13</b>	Grey tower; 62.	W. 1°-16°, R. -49°, W. -68°, R. -97°, W. -142°, W. 271°-339°, R. -1°.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>GERMANY-NORTH SEA</b>							
10612 <i>B 1676.1</i>	Pellworm Island	54° 29.8' N 8° 40.0' E	<b>Oc.W.R.G.</b> period 5s lt. 4s, ec. 1s	125 38	<b>W. 20</b> <b>R. 16</b> <b>G. 15</b>	Red tower, white banded; 135.	G. 37°30'-40°, W. -42°30', R. -45°.
			<b>Oc.W.R.</b> period 5s lt. 4s, ec. 1s		<b>W. 15</b> R. 11		R. 122°36'-140°, W. -210°12'.
			<b>Oc.W.</b> period 5s lt. 4s, ec. 1s		<b>15</b>		Visible 255°-307°.
AMRUM:							
10620 <i>B 1686</i>	-Amrum	54° 37.9' N 8° 21.4' E	<b>FI.W.</b> period 7.5s fl. 1s, ec. 6.5s	207 63	<b>23</b>	Red tower, white banded; 134.	
10628 <i>B 1688</i>	-Wriakhorn	54° 37.6' N 8° 21.2' E	<b>L.FI.(2)W.R.</b> period 15s fl. 2s, ec. 3s fl. 2s, ec. 8s	85 26	W. 12 R. 9	Grey latticed tower, platform; 56.	W. 297°30'-319°30', R. -330°, W. -5°30', R. -34°.
10636 <i>B 1728</i>	-Norddorf	54° 40.2' N 8° 18.5' E	<b>Oc.W.R.G.</b> period 6s lt. 4.5s, ec. 1.5s	72 22	<b>W. 15</b> R. 12 G. 11	White tower, red banded, red roof; 26.	W. 31°-97°, R. -176°30', W. -178°30', G. -188°.
10640 <i>B 1700</i>	Nordmarsch	54° 37.6' N 8° 31.8' E	<b>L.FI.(3)W.R.</b> period 20s fl. 2s, ec. 3s fl. 2s, ec. 3s fl. 2s, ec. 8s	43 13	W. 14 R. 11	Brown tower; 36.	W. 268°-279°, R. -306°, W. -45°, R. -70°, W. -218°.
FOHR:							
10644 <i>B 1704</i>	-Oldenhorn	54° 40.9' N 8° 34.1' E	<b>Oc.(4)W.R.</b> period 15s lt. 2s, ec. 1s lt. 2s, ec. 1s lt. 2s, ec. 1s lt. 5s, ec. 1s	33 10	W. 13 R. 10	Red tower, platform, green lantern; 26.	W. 208°-237°30', R. -298°, W. -353°, R. -80°.
10648 <i>B 1706</i>	--Wyk, pier, head	54° 41.6' N 8° 34.7' E	<b>F.R.</b>	30 9	4	Red pile.	
10652 <i>B 1714</i>	Oland, NW. side, on Hallig wharf	54° 40.5' N 8° 41.3' E	<b>F.W.R.G.</b>	23 7	W. 13 R. 10 G. 9	Red tower, lantern in a window on n side; 23.	G. 86°-93°, W. -160°, R. -172°.
SYLT:							
10676 <i>B 1735</i>	-Hornum	54° 45.3' N 8° 17.5' E	<b>FI.(2)W.</b> period 9s fl. 0.4s, ec. 2.6s fl. 0.4s, ec. 5.6s	157 48	<b>20</b>	Red tower, white banded; 112.	
10688	-Hornum Odde, cross	54° 44.4' N 8° 17.7' E	<b>Oc.(2)W.R.G.</b> period 12s lt. 3s, ec. 1s lt. 7s, ec. 1s	56 17	W. 6 R. 4 G. 3	Grey mast; 13.	R. 180°-204°, W. -270°, G. -290°, W. -313°, R. -328°, W. -23°, R. -45°.
10692 <i>B 1738</i>	-N. mole	54° 45.6' N 8° 17.9' E	<b>F.G.</b>	20 6	4	Green pile; 10.	Visible 24°-260°.
10696 <i>B 1738.6</i>	--Outer S. mole, head	54° 45.6' N 8° 18.0' E	<b>F.R.</b>	23 7	4	Dolphins, platform, red lantern.	
10700 <i>B 1740</i>	-Kampen	54° 56.8' N 8° 20.4' E	<b>L.FI.W.R.</b> period 10s fl. 3s, ec. 7s	203 62	<b>W. 20</b> <b>R. 16</b>	White tower, black banded; 131.	W. 193°-165°, R. -193°.
10704 <i>B 1746</i>	-List, W	55° 03.2' N 8° 24.1' E	<b>Oc.W.R.G.</b> period 6s lt. 4.5s, ec. 1.5s	62 19	W. 14 R. 11 G. 10	White tower, red lantern; 36.	W. 40°-69°, R. -133°, W. -227°, R. -266°24', W. -268°, G. -285°, W. -40°.
10708 <i>B 1748</i>	--E	55° 03.0' N 8° 26.6' E	<b>Iso.W.R.G.</b> period 6s	72 22	W. 14 R. 11 G. 10	White tower, red banded, red lantern; 43.	W. 10°30'-262°, R. -278°, W. -296°, R. -323°18', W. -324°30', G. -350°, W. -10°30'.
10712 <i>B 1749</i>	--Land	55° 01.1' N 8° 26.5' E	<b>Oc.W.R.G.</b> period 3s lt. 2s, ec. 1s	46 14	W. 13 R. 10 G. 9	White mast, red banded; 33.	W. 170°-203°, G. -212°, W. -215°30', R. -232°30', W. -234°, G. -243°, W. -50°. F.G. and F.R. mark naval boat harbor entrance.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>DENMARK-NORTH SEA</b>							
10716 <i>B 1848</i>	Blavandshuk	55° 33.5' N 8° 05.0' E	<b>L.FI.(3)W.</b> period 20s fl. 2s, ec. 2s fl. 2s, ec. 2s fl. 2s, ec. 10s	180 55	22	White square tower; 128.	<b>Dgps station.</b>
10716.1 <i>B 1848.7</i>	-Munk S. Wind Farm	55° 30.5' N 7° 52.5' E	<b>Mo.(U)W.</b> period 15s fl. 0.7s, ec. 0.7s fl. 0.7s, ec. 0.7s fl. 2.1s, ec. 10.1s	49 15	5	Transformer platform.	
10716.17	Horns Rev Offshore Wind Farm, Platform C	55° 41.4' N 7° 41.2' E	<b>2 Mo.(U)W.</b> period 15s	98 30	10	Transformer platform.	
10716.3	Regnar Field TANKER Superbuoy  RACON	55° 23.2' N 5° 13.9' E	<b>Mo.(U)W.</b> period 15s  <b>U(••-)</b> period 30s		10		
10716.5	Dan Field, Platform FC, RACON	55° 28.0' N 5° 08.0' E	<b>U(••-)</b> period 90s				(3 cm). <b>Aero radiobeacon.</b>
10717	Kraka Field, Platform A, RACON	55° 24.0' N 5° 05.1' E	<b>U(••-)</b>				(3 & 10 cm).
10717.1 <i>A 7784</i>	GNSC-B~11 Platform, RACON	55° 27.8' N 4° 33.0' E	<b>D(-••)</b>				(3 & 10 cm).
10717.2	Rolf Field, Platform A, RACON	55° 36.4' N 4° 29.6' E	<b>U(••-)</b>				
10717.3	Valdemar Field, Platform A, RACON	55° 50.2' N 4° 33.5' E	<b>U(••-)</b>				(3 & 10 cm).
10717.5	Dagmar Field, Platform A, RACON	55° 34.6' N 4° 37.2' E	<b>U(••-)</b>				<b>AIS</b> (MMSI No 992191500).(3 & 10 cm).
10718	Gorm Field, Platform C, RACON	55° 34.9' N 4° 45.6' E	<b>U(••-)</b> period 72s				(3 cm).
10718.2	Tyra East Field, Platform A, RACON	55° 43.3' N 4° 48.2' E	<b>U(••-)</b> period 90s				(3 cm).
10718.4	Tyra West Field, Platform A, RACON	55° 43.0' N 4° 45.1' E	<b>U(••-)</b> period 90s				(3 cm).
10719	Gradyb Anduvning Buoy  RACON	55° 24.7' N 8° 11.7' E	<b>L.FI.W.</b> period 10s  <b>G(-••)</b>		10	SAFE WATER Red column, white vertical stripes, topmark.	(3 & 10 cm).
10719.3	Harald Field, Platform B, RACON	56° 20.7' N 4° 16.3' E	<b>U(••-)</b>				(3 & 10 cm).
10719.5 <i>B 1757</i>	-Romo Channel, outer	55° 03.5' N 8° 31.1' E	<b>FI.(2)R.</b> period 10s fl. 1.5s, ec. 1.5s fl. 1.5s, ec. 5.5s	16 5	3	Red post; 10.	
10719.6 <i>B 1758</i>	--Middle	55° 04.0' N 8° 32.7' E	<b>FI.R.</b> period 3s fl. 0.5s, ec. 2.5s	20 6	3	Red post.	
10719.7 <i>B 1759</i>	--Inner	55° 04.8' N 8° 34.2' E	<b>FI.R.</b> period 5s fl. 0.5s, ec. 4.5s	16 5	3	Red post; 10.	
ESBJERG APPROACH:							
10720 <i>B 1772</i>	-Saedenstrand Range, front	55° 29.7' N 8° 23.9' E	<b>Iso.W.</b> period 2s	46 14	19	Grey tower, copper roof; 10.	Visible 52°18'-55°18'. Shown 24 hours.
10724 <i>B 1772.1</i>	--Middle, 740 meters 053°48' from front	55° 29.9' N 8° 24.4' E	<b>Iso.W.</b> period 4s	89 27	19	Red metal tower, white banded; 46.	Visible 52°18'-55°18'. Shown 24 hours.
10728 <i>B 1772.2</i>	--Rear, about 1.4 km. 053°48' from middle	55° 30.2' N 8° 24.9' E	<b>F.W.</b>	121 37	20	Red latticed tower; 72.	Visible 52°18'-155°18'. Shown 24 hours.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>DENMARK-NORTH SEA</b>							
10730 B 1774	-Tide Gauge	55° 26.1' N 8° 15.9' E	<b>Fl.(5)Y.</b> period 20s fl. 0.75s, ec. 1.25s fl. 0.75s, ec. 1.25s fl. 0.75s, ec. 1.25s fl. 0.75s, ec. 1.25s fl. 0.75s, ec. 11.25s	33 10	4	Yellow mast, yellow platform.	Tide gauge.
10732 B 1780	-Fano Sandende, Jerg	55° 28.9' N 8° 22.0' E	<b>Fl.G.</b> period 3s fl. 0.75s, ec. 2.25s	23 7	6	Green tower.	
10736 B 1780.4	-Fovrfelt	55° 29.0' N 8° 23.7' E	<b>Fl.(2)R.</b> period 10s fl. 1.5s, ec. 1.5s fl. 1.5s, ec. 5.5s	36 11	6	Red tower.	
10740 B 1780.2	--N	55° 29.3' N 8° 23.8' E	<b>Oc.(2)W.R.G.</b> period 6s lt. 1s, ec. 1s lt. 3s, ec. 1s	23 7	W. 7 R. 5 G. 5	Yellow tower.	G. 327°-331°, W. -333°30', R. -342°, G. 66°30'-73°, W. -77°, R. -85°30'.
10744 B 1778	-Saedenstrand, S. Range, front	55° 28.7' N 8° 24.6' E	<b>F.G.</b>	36 11	18	White latticed tower; 23.	Visible 65°30'-68°30'. Shown 24 hours.
10748 B 1778.1	--Rear, about 1.2 km. 067° from front	55° 29.0' N 8° 26.0' E	<b>F.G.</b>	82 25	19	Grey tower; 56.	Visible 65°30'-68°30'. Shown 24 hours.
10752 B 1779	--N. Range, front	55° 29.9' N 8° 23.7' E	<b>F.R.</b>	56 17	17	White latticed tower; 20.	Visible 47°30'-50°30'. Shown 24 hours.
10756 B 1779.1	--Rear, 550 meters 049° from front	55° 30.1' N 8° 24.0' E	<b>F.R.</b>	92 28	18	Grey concrete tower; 36.	Visible 47°30'-50°30'. Shown 24 hours.
10760 B 1782	-Strandby	55° 28.8' N 8° 24.6' E	<b>Oc.W.R.G.</b> period 5s lt. 4s, ec. 1s	20 6	W. 8 R. 6 G. 7	White building, red banded.	G. 101°12'-105°54', W. - 109°42', R. -111°54'.
10768 B 1784	-Commercial Fishing harbor, W. mole	55° 28.6' N 8° 24.9' E	<b>Fl.R.</b> period 5s fl. 1s, ec. 4s	23 7	4	Red post; 10.	Flood light.
10772 B 1784.4	--E. mole	55° 28.5' N 8° 25.0' E	<b>Fl.G.</b> period 5s fl. 1s, ec. 4s	23 7	4	Green conical structure; 10.	Flood light.
10776 B 1786	-Konsumfiskerihaven, W. mole	55° 28.3' N 8° 25.3' E	<b>Fl.R.</b> period 3s fl. 0.75s, ec. 2.25s	20 6		Red latticed structure; 10.	Visible 203°-119°.
10780 B 1788	--E. mole	55° 28.3' N 8° 25.4' E	<b>Fl.G.</b> period 3s fl. 0.75s, ec. 2.25s	20 6		Green latticed structure; 10.	Visible 23°-256°.
10788 B 1794	-Commercial Harbor, N. mole, head	55° 28.1' N 8° 25.5' E	<b>F.R.</b>	26 8	5	Red conical structure; 16.	Visible 232°-135°. Shown in reduced visibility.
10792 B 1796	--S. mole, head	55° 28.1' N 8° 25.5' E	<b>F.G.</b>	26 8	5	Green conical structure; 16.	Visible 45°-276°.
ESBJERG HARBOR:							
10796 B 1804	-Commercial Harbor, W. mole, head	55° 27.5' N 8° 26.1' E	<b>F.R.</b>	30 9	4	Red post, concrete base; 16.	For use of large vellels in Swinging Basin.
10800 B 1805	--E. mole, head	55° 27.4' N 8° 26.3' E	<b>F.G.</b>	30 9	4	Green metal post, concrete base; 16.	
10802 B 1818.5	-Western Excavation Limit Range, front	55° 27.6' N 8° 25.9' E	<b>F.R.</b>	33 10	3	Latticed mast; 13.	Visible 47°-77°.
10802.1 B 1818.51	--Rear, 140 meters 062° from front	55° 27.6' N 8° 26.0' E	<b>F.R.</b>	43 13	3	Latticed mast; 20.	Visible 47°-77°.
10806 B 1817.4	-Kremer Sand Range, front	55° 27.7' N 8° 24.8' E	<b>F.W.</b>	30 9	7	Grey mast, post, white "x" topmark; 33.	Visible 276°54'-306°54'. Shown 24 hours. Range 1M by day.
10806.1 B 1817.41	--Rear, 244 meters 291°54' from front	55° 27.7' N 8° 24.6' E	<b>F.W.</b>	39 12	7	Grey mast, post, white "x" topmark; 36.	Visible 276°54'-306°54'. Shown 24 hours. Range 1M by day. Marks southern boundary of dredged area at Australia Quay.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>DENMARK-NORTH SEA</b>							
10816 B 1822	-Nordby Range, front	55° 26.9' N 8° 24.5' E	<b>F.R.</b>	23 7	4	Wooden post, white triangle, point up daymark.	Visible 123°42'-303°42'.
10820 B 1822.1	--Rear, 84 meters 214° from front	55° 26.9' N 8° 24.4' E	<b>F.R.</b>	30 9	4	Grey latticed tower, white triangle, point down daymark; 30.	Visible 123°42'-303°42'.
10840 B 1819.6	-Kremer Sand S	55° 27.3' N 8° 24.8' E	<b>F.G.</b>	16 5	3	Green dolphin; 13.	
HVIDE SANDE KANAL:							
10852 B 1860	-Breakwater, head	56° 00.0' N 8° 06.6' E	<b>FI.R.</b> period 3s fl. 0.75s, ec. 2.25s	23 7	8	Red building; 7.	
10856 B 1861	-W. entrance, N. mole, head	56° 00.0' N 8° 06.9' E	<b>FI.R.</b> period 5s fl. 1s, ec. 4s	33 10	7	Red structure; 16.	Shown in reduced visibility. Flood light.
10860 B 1862	--S. mole, W. head	56° 00.0' N 8° 06.9' E	<b>FI.G.</b> period 5s fl. 1s, ec. 4s	33 10	7	Green structure; 16.	Shown in reduced visibility.
10864 B 1862.4	-Innerhead, S. mole, head	56° 00.1' N 8° 07.4' E	<b>F.G.</b>	16 5	2	Grey column.	
10868 B 1862.2	--N. mole, head	56° 00.1' N 8° 07.3' E	<b>F.R.</b>	16 5	4	Grey column; 7.	
10872 B 1868	Lyngvig	56° 03.0' N 8° 06.3' E	<b>FI.W.</b> period 5s	174 53	23	White round tower; 125.	May have yellow tint.
TORSMINDE:							
10880 B 1880	-N. mole, about 25 meters from head	56° 22.4' N 8° 06.7' E	<b>Iso.R.</b> period 2s	30 9	5	Red building; 23.	Shown 24 hours.
10884 B 1881	-S. mole, head	56° 22.3' N 8° 07.0' E	<b>Iso.G.</b> period 2s	30 9	5	Green building; 16.	Shown 24 hours.
10892 B 1885	-E. side of lock	56° 22.4' N 8° 07.3' E	<b>Iso.W.</b> period 4s	39 12	5	Grey mast; 40.	Visible 20°-160°.
10896 B 1885.2	-E. side of bridge	56° 22.4' N 8° 07.3' E	<b>Iso.W.</b> period 4s	16 5	5		Visible 200°-340°.
10900 B 1884.4	-E. Range, front	56° 22.3' N 8° 07.3' E	<b>F.G.</b>	16 5	5	Grey post.	
10904 B 1884.6	--Rear	56° 22.3' N 8° 07.3' E	<b>F.G.</b>	16 5	5	Grey post.	
10908 B 1886	Bovbjerg	56° 30.8' N 8° 07.2' E	<b>FI.(2)W.</b> period 15s	203 62	16	Red round tower; 85.	
10910	Thyboron Buoy	56° 42.8' N 8° 08.5' E	<b>L.FI.W.</b> period 10s			SAFE WATER Red column, white vertical stripes, topmark.	
	RACON		<b>T(-)</b>				(3 & 10 cm).
10912 B 1890	Thyboron	56° 42.5' N 8° 12.9' E	<b>FI.(3)W.</b> period 10s fl. 1s, ec. 1s fl. 1s, ec. 1s fl. 1s, ec. 5s	79 24	12	Latticed tower; 56.	Visible INTENSIFIED 23°30'-203°30'. Shown in reduced visibility.
10916 B 1894	-Agger~Tange Range, front	56° 43.0' N 8° 14.1' E	<b>Iso.W.R.G.</b> period 4s	30 9	W. 10 R. 8 G. 8	Grey lattice tower, red triangle, point up daymark; 16.	G. 78°-83°, W. -87°, R. -92°.
10920 B 1894.1	--Rear, 804 meters 082° from front	56° 43.0' N 8° 14.9' E	<b>Iso.W.</b> period 4s	56 17	12	Grey latticed mast, red triangle, point down daymark; 43.	Visible 75°-89°. Synchronized with front.
10924 B 1897	-Svaneholm Range, front	56° 42.5' N 8° 14.6' E	<b>Iso.W.</b> period 2s	23 7	10	Red building, red triangle, point up daymark; 7.	Visible 113°-127°.
10928 B 1897.1	--Rear, 312 meters 120° from front	56° 42.4' N 8° 14.8' E	<b>Iso.W.</b> period 2s	43 13	10	Grey latticed tower, red triangle, point down daymark; 43.	Visible 113°-127°. Synchronized with front.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>DENMARK-NORTH SEA</b>							
10932 B 1900	-Thyboron Tange	56° 42.4' N 8° 13.5' E	<b>Oc.(2)W.R.G.</b> period 12s fl. 2s, ec. 2s lt. 6s, ec. 2s	20 6	W. 11 R. 8 G. 8	White tower, red banded; 10.	G. 122°30'-146°30', W. - 150°, R. -211°18', G. - 337°30', W. -340°, R. - 344°. Sectors altered and light moved as channel changes.
10936 B 1902	-Canal mole, head	56° 42.1' N 8° 13.6' E	<b>FI.G.</b> period 3s fl. 0.7s, ec. 2.3s	20 6	4	Green building; 10.	Floodlit.
10940 B 1903	-S. mole, head	56° 42.0' N 8° 13.6' E	<b>FI.R.</b> period 3s fl. 0.7s, ec. 2.3s	20 6	4	Red building; 10.	Floodlit.
10944 B 2070	Lodbjerg	56° 49.4' N 8° 15.8' E	<b>FI.(2)W.</b> period 20s fl. 1.3s, ec. 4.7s fl. 1.3s, ec. 12.7s	157 48	21	Round masonry tower; 115.	
NORRE VORUPOR:							
10948 B 2072	-Range, front	56° 57.5' N 8° 22.1' E	<b>Iso.R.</b> period 4s	66 20	9	Red tower, white banded; 13.	Visible 22°30' each side of range line. Moved as channel changes.
10952 B 2072.1	--Rear, 80 meters from front	56° 57.5' N 8° 22.3' E	<b>Iso.R.</b> period 4s	98 30	9	Red tower, white banded; 30.	Visible 22°30' each side of range line. Moved as channel changes. Synchronized with front. Occasional.
10956 B 2074	-Mole, head	56° 57.8' N 8° 21.6' E	<b>FI.G.</b> period 5s fl. 1s, ec. 4s	20 6	5	Latticed tower; 10.	
10960 B 2080	Klitmoller Range, front	57° 02.7' N 8° 29.2' E	<b>F.R.</b>	26 8	4	Mast; 16.	Visible 97°-210°. Moved as channel changes. Fishing light.
10964 B 2080.1	-Rear, 50 meters 146° from front	57° 02.7' N 8° 29.2' E	<b>F.R.</b>	43 13	4	Mast; 26.	Visible 90°-202°. Fishing light.
HANSTHOLM:							
10968 B 2084	-Hanstholm	57° 06.8' N 8° 35.9' E	<b>FI.(3)W.</b> period 20s fl. 0.4s, ec. 3.3s fl. 0.4s, ec. 3.3s fl. 0.4s, ec. 12.2s	213 65	26	White octagonal tower; 75.	Shown by day in reduced visibility.
10972 B 2087	-Entrance Range, front	57° 07.1' N 8° 36.3' E	<b>Iso.W.</b> period 2s	121 37	13	Mast, red triangle, point up daymark; 13.	Visible 127°36'-157°36'.
10976 B 2087.1	--Rear, 170 meters 142°36' from front	57° 07.1' N 8° 36.3' E	<b>Iso.W.</b> period 2s	148 45	13	Mast, red triangle, point down daymark; 13.	Visible 127°36'-157°36'. Synchronized with front.
10980 B 2086	-Outer mole, E. section, head	57° 07.6' N 8° 35.7' E	<b>FI.R.</b> period 3s fl. 0.7s, ec. 2.3s	36 11	9	Red column; 16.	Flood light.
10988 B 2088	-Transverse mole, W. section, head	57° 07.5' N 8° 35.7' E	<b>F.G.</b>	20 6	7	Green latticed tower; 10.	Shown 24 hours. Flood light.
10992 B 2089	--E. section, head	57° 07.4' N 8° 35.7' E	<b>F.R.</b>	20 6	6	Red latticed tower; 10.	Shown 24 hours. Flood light.
10996 B 2090	-Roshage, mole, head	57° 07.8' N 8° 37.2' E	<b>FI.W.</b> period 5s fl. 1s, ec. 4s	23 7	5	Latticed tower; 16.	
11000 B 2098	Lildstrand Ranges	57° 09.2' N 8° 57.9' E	<b>F.W.</b>	39 12	7	Unpainted wooden mast; 36.	Visible 127°-149°. Range light. Moved as channel changes. Fishing light.
11004 B 2102	Lokken	57° 22.4' N 9° 42.1' E	<b>FI.W.</b> period 5s fl. 1s, ec. 4s	16 5	6	Latticed tower.	
11008 B 2106	Hirtshals	57° 35.1' N 9° 56.5' E	<b>F.FI.W.</b> period 30s fl. 0.3s, ec. 29.7s	187 57	F. 18 Fl. 25	White round tower; 115.	A short eclipse may be seen before and after the flash. Light has a whitish- yellow color.

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>DENMARK-NORTH SEA</b>							
11012 B 2107	-Range, front on transverse mole	57° 35.7' N 9° 57.7' E	<b>Iso.R.</b> period 2s	33 10	11	Latticed tower, red triangle, point up daymark; 30.	Visible 156°-176°.
11016 B 2107.1	--Rear, 330 meters 166° from front	57° 35.6' N 9° 57.8' E	<b>Iso.R.</b> period 4s	59 18	11	Latticed tower, red triangle, point down daymark; 39.	Visible 156°-176°.
11020 B 2108	-Breakwater, head	57° 36.0' N 9° 57.5' E	<b>Fl.G.</b> period 3s fl. 0.7s, ec. 2.3s	46 14	6	Green mast; 33.	<b>Horn:</b> 1bl. ev. 15s (bl. 5s, si. 10s)
11024 B 2110	-Hirtshals outer harbor, W. mole, head	57° 35.8' N 9° 57.6' E	<b>Fl.G.</b> period 5s fl. 1s, ec. 4s	30 9	5	Green mast; 33.	
11028 B 2112	--E. mole, head	57° 35.9' N 9° 57.7' E	<b>Fl.R.</b> period 5s fl. 1s, ec. 4s	30 9	6	Red mast; 23.	
11032 B 2113	-Inner harbor, transverse mole, E. head	57° 35.7' N 9° 57.9' E	<b>F.G.</b>	20 6	4	Green mast; 13.	
11035 A 788	Svend Oilfield, Platform A	56° 10.7' N 4° 10.8' E	<b>Mo.(U)W.</b> period 15s		15	Platform.	Reserve light range 10M. AIS (MMSI No 992191521). Horn: Mo.(U) ev. 30s (bl. 0.7s, si. 0.7s, bl. 1s, si. 1s, bl. 2.5s, si. 24.1s).
			<b>Mo.(U)R.</b> period 15s				Light on each corner of platform if not marked by a W. light, the subsidiary lights are synchronized.
	RACON		<b>U(••-)</b>				(3 & 10 cm).
11038	Eldfisk Oilfield, platform, RACON	56° 22.5' N 3° 16.0' E	<b>O(---)</b>		16		
11040	Tor Oilfield, platform, RACON	56° 38.5' N 3° 19.8' E	<b>N(-•)</b>		16		
11042	Skjold Oilfield, Platform C, RACON	55° 31.9' N 4° 54.5' E	<b>U(••-)</b>				(3 & 10 cm).

# Radiobeacons

(1) No.	(2) Name	(3) Position	(4) Characteristic	(5) Range	(6) Sequence	(7) Frequency	(8) Remarks
<b>UNITED KINGDOM</b>							
10	Brighton Marina	50° 48.7' N 0° 06.0' W	<b>BM</b> (-••• --).	10		294.5 A1A.	
110	Cloch Point Light, Calibration Radiobeacon	55° 57.0' N 4° 53.0' W	<b>CL</b> (-•-• ••••).	8		300 A1A.	Transmits upon request to Estuary Control on VHF Ch 16 or 12 or by telephone Greenock (0475) 26221. Six hours prior notice is required.
<b>CHANNEL ISLANDS</b>							
270	Castle Breakwater Light	49° 27.4' N 2° 31.4' W	<b>GY</b> (-•- -•-•).	10		304.5 A1A.	Synchronized with horn for distance finding.
<b>GERMANY</b>							
510	Wilhelmshaven Calibration Radiobeacon	53° 31.0' N 8° 08.8' E	<b>VB</b> (•••• -•••).			A2A.	Transmits on request to Wasser and Schiffsamt Wilhelmshaven through Jade Revier on VHF Ch 16 or 20.
520	Bremerhaven Calibration Radiobeacon	53° 32.4' N 8° 34.9' E	<b>GB</b> (-•• -•••).			A2A.	Transmits on request to Wasser and Schiffsamt Bremerhaven through Bremerhaven Weser Revier on VHF Ch 5 or 7.
530	Hollenwettern Calibration Radiobeacon	53° 50.4' N 9° 21.2' E	<b>HB</b> (•••• -•••).			A2A.	Transmits on request to Revierzentrale Brunsbüttel to all district radio channels of the Wasser and Schiffsamt Hamburg or by telephone (04852) 8011-16 ext 393 or (04852) 8400.
540	Krautsand Calibration Radiobeacon	53° 45.6' N 9° 22.6' E	<b>KB</b> (-•- -•••).			A1A.	Transmits on request to Revierzentrale Brunsbüttel to all district radio channels of the Wasser and Schiffsamt Hamburg or by telephone (04852) 8011-16 ext. 393 or (04852) 8400.
<b>DENMARK</b>							
570	Platform FC, Dan Oil Field	55° 28.0' N 5° 08.0' E	<b>DNF</b> (-•• -• ••••).	25		349 A2A.	AERO.

## Differential GPS Stations

(1) No.	(2) Name	(3) Position	(4) Station ID	(5) Range	(6) Frequency	(7) Transfer Rate	(8) Remarks
<b>BELGIUM</b>							
5	Oostende	51° 14.3' N 2° 55.9' E	420 640	119	312	200	3,7,9,27
<b>DENMARK</b>							
10	Blavands Huk	55° 33.5' N 8° 05.1' E	452 705 706	150	290	100	3,7,9,16
<b>FRANCE</b>							
15	Heauville (L Hague)	49° 34.9' N 1° 46.7' W	330 460	108	299	100	1,3,5,7,9
<b>GERMANY</b>							
35	Helgoland	54° 11.2' N 7° 54.4' E	492 762	154	298.5	100	3,6,7,9,16
45	Zeven	53° 17.0' N 9° 15.0' E	493 763	154	303.5	100	3,6,7,9,16

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Inter.	—	U.S.	Inter.	—	U.S.	Inter.	—	U.S.	Inter.	—	U.S.
A0002	.....	4	A0168.2	.....	253	A0348	.....	532	A0632.3	.....	874
A0006	.....	8	A0170	.....	256	A0348.1	.....	536	A0633	.....	884
A0018	.....	16	A0172	.....	260	A0354	.....	528	A0637	.....	888
A0020	.....	20	A0173	.....	264	A0496	.....	544	A0637.1	.....	892
A0028	.....	24	A0174	.....	268	A0498	.....	548	A0640	.....	896
A0030	.....	28	A0176	.....	272	A0500	.....	560	A0645	.....	912
A0032	.....	32	A0178	.....	274	A0506	.....	572	A0646	.....	916
A0038	.....	40	A0182	.....	276	A0520.6	.....	573	A0652	.....	936
A0040	.....	44	A0184	.....	280	A0520.61	.....	574	A0654	.....	924
A0045	.....	46	A0185	.....	282	A0521	.....	576	A0664	.....	942
A0046	.....	48	A0186	.....	284	A0522	.....	580	A0665.8	.....	942.1
A0048	.....	52	A0186.2	.....	286	A0528	.....	584	A0684	.....	1024
A0051	.....	56	A0192	.....	292	A0534	.....	588	A0686	.....	952
A0056	.....	60	A0193	.....	294	A0538.1	.....	596	A0688	.....	948
A0060	.....	64	A0204	.....	300	A0541	.....	606	A0691	.....	956
A0062	.....	68	A0220	.....	308	A0542	.....	600	A0692.5	.....	960
A0064	.....	72	A0222	.....	312	A0542.1	.....	604	A0692.8	.....	998
A0065	.....	80	A0222.1	.....	316	A0543	.....	608	A0696	.....	964
A0066	.....	84	A0224	.....	320	A0544	.....	607	A0698	.....	968
A0068	.....	88	A0228	.....	324	A0552	.....	612	A0700	.....	972
A0069	.....	92	A0236	.....	328	A0553.2	.....	616	A0701	.....	974
A0070	.....	96	A0237	.....	336	A0555	.....	624	A0704	.....	980
A0078	.....	100	A0238	.....	340	A0558	.....	636	A0705	.....	984
A0080	.....	102	A0242	.....	332	A0560	.....	640	A0707.4	.....	988
A0080.2	.....	102.5	A0244	.....	344	A0560.5	.....	641	A0720	.....	992
A0082	.....	104	A0246	.....	348	A0562	.....	628	A0722.2	.....	996
A0084	.....	108	A0247.4	.....	357	A0562.1	.....	632	A0726	.....	1000
A0086	.....	112	A0247.6	.....	358	A0577	.....	664	A0730	.....	1004
A0090	.....	118	A0248	.....	360	A0580.6	.....	666	A0734	.....	1020
A0092	.....	120	A0249	.....	364	A0581.9	.....	744	A0750	.....	1028
A0093	.....	124	A0249.2	.....	368	A0582	.....	748	A0760	.....	944
A0094	.....	128	A0249.5	.....	372	A0582.1	.....	752	A0762	.....	943
A0098	.....	132	A0250	.....	376	A0586	.....	740	A0768	.....	1052
A0111.2	.....	140	A0252	.....	388	A0587	.....	740.5	A0770	.....	1056
A0112	.....	144	A0254	.....	380	A0587.1	.....	740.7	A0774	.....	1064
A0114	.....	148	A0256	.....	384	A0588	.....	741	A0780	.....	1048
A0114.5	.....	150	A0262	.....	392	A0590.14	.....	688	A0782	.....	1036
A0115.5	.....	153	A0262.1	.....	396	A0590.16	.....	692	A0782.08	.....	1037
A0117	.....	160	A0263	.....	400	A0590.22	.....	698	A0783.4	.....	1044
A0119	.....	164	A0263.5	.....	402	A0594	.....	728	A0783.5	.....	1046
A0119.1	.....	168	A0274	.....	408	A0596	.....	732	A0790	.....	1066
A0122	.....	172	A0278	.....	418	A0599	.....	756	A0794	.....	1072
A0124	.....	176	A0280	.....	420	A0601	.....	760	A0800	.....	1076
A0126	.....	202.5	A0284	.....	424	A0602	.....	768	A0800.5	.....	1078
A0131	.....	182	A0284.1	.....	428	A0604	.....	772	A0801	.....	1080
A0132	.....	184	A0288	.....	432	A0605	.....	780	A0801.1	.....	1084
A0134	.....	180	A0293	.....	449	A0605.5	.....	776	A0804	.....	1088
A0134.1	.....	180.5	A0294	.....	448	A0612	.....	784	A0808	.....	1092
A0136	.....	192	A0302	.....	452	A0612.2	.....	788	A0808.2	.....	1096
A0137	.....	188	A0310	.....	456	A0612.4	.....	792	A0809	.....	1098
A0138	.....	196	A0314	.....	464	A0614	.....	800	A0810	.....	1100
A0141	.....	201	A0320	.....	468	A0618	.....	804	A0812	.....	1108
A0141.1	.....	202	A0322	.....	472	A0618.2	.....	808	A0813	.....	1104
A0147	.....	208	A0324	.....	517	A0618.4	.....	812	A0814	.....	1112
A0148	.....	209	A0324.1	.....	517.1	A0620.5	.....	816	A0814.1	.....	1116
A0148.5	.....	210	A0326.2	.....	508	A0620.7	.....	820	A0822	.....	1120
A0157	.....	224	A0326.5	.....	512	A0621	.....	828	A0825	.....	1122
A0161	.....	254	A0327	.....	492	A0621.2	.....	832	A0825.2	.....	1123
A0162	.....	255	A0327.5	.....	496	A0626	.....	844	A0826	.....	1121
A0164	.....	240	A0327.6	.....	500	A0626.1	.....	848	A0830	.....	1136
A0166	.....	244	A0330	.....	488	A0628.6	.....	854	A0832	.....	1132
A0166.2	.....	245	A0332	.....	484	A0630	.....	864	A0839	.....	1128
A0166.4	.....	246	A0334	.....	480	A0630.1	.....	868	A0840	.....	1140
A0167	.....	248	A0339	.....	520	A0632	.....	872	A0843	.....	1144
A0168	.....	252	A0346	.....	540	A0632.2	.....	873	A0846	.....	1148

# CROSS REFERENCE - INTERNATIONAL vs. U.S. LIGHT NUMBER

Inter.	—	U.S.	Inter.	—	U.S.	Inter.	—	U.S.	Inter.	—	U.S.
A0848		1150	A1146		8908	A1277		8676	A1488		8364
A0848.1		1153	A1148		8912	A1277.1		8680	A1488.1		8368
A0848.2		1154	A1157		8913	A1278		8684	A1490		8400
A0848.5		1152	A1160		8900	A1278.1		8688	A1491		8392
A0854		1176	A1166		8896	A1279		8692	A1492		8396
A0856		1172	A1168		8856	A1279.1		8696	A1493		8398
A0858		1164	A1170		8860	A1280.7		8702	A1493.1		8398.1
A0858.1		1168	A1172		8864	A1282		8592	A1495		8372
A0864		1216	A1172.1		8868	A1282.2		8588	A1496		8380
A0864.5		1212	A1174		8872	A1283		8600	A1498		8376
A0866		1192	A1175		8876	A1283.1		8604	A1498.5		8384
A0866.3		1200	A1178		8892	A1284		8584	A1499		8388
A0866.5		1204	A1180		8888	A1285		8596	A1499.5		8386
A0866.7		1208	A1182		8880	A1286		8612	A1508		8308
A0867		1196	A1182.1		8884	A1289		8618	A1512		8304
A0876		1220	A1190		8844	A1290		8616	A1513		8095
A0892		1228	A1194		8840	A1296		8620	A1514		8312
A0896		1232	A1196		8832	A1377		8552	A1520		8268
A0897.5		1224	A1202		8828	A1378		8556	A1532		8264
A0898		1234	A1208		8804	A1379		8560	A1536		8300
A0898.2		1234.1	A1210		8808	A1381		8568	A1537		8296
A0900		1236	A1211		8812	A1381.1		8572	A1538		8288
A0902		1268	A1214		8820	A1390		8540	A1538.1		8292
A0906		1256	A1215		8816	A1391		8544	A1538.5		8292.5
A0912		1248	A1216		8824	A1396		8532	A1539		8293
A0914		1252	A1220		8800	A1400		8516	A1544		8260
A0915		1260	A1222		8792	A1400.1		8520	A1545		8261
A0924		1272	A1224		8796	A1403		8524	A1545.5		8262
A0926		1276	A1226		8797	A1404		8528	A1546		8208
A0928		1304	A1228		8788	A1406		8512	A1546.4		8200
A0929		1305	A1230		8776	A1408		8504	A1546.6		8204
A0935		1284	A1232.1		8784	A1409		8508	A1546.7		8205
A0936		1288	A1233		8782	A1410		8492	A1548		8184
A0950		1312	A1234		8768	A1411		8496	A1548.5		8188
A0957.1		1348	A1238		8760	A1411.1		8500	A1550		8196
A0958		1352	A1239		8764	A1412		8484	A1552		8192
A0958.1		1356	A1244		8752	A1424		8472	A1554		8228
A0959		1349	A1245		8755	A1428		8464	A1557		8216
A0959.5		1350	A1246		8756	A1428.1		8468	A1558		8220
A0964		1360	A1247		8750	A1434		8460	A1558.1		8224
A0966		1364	A1248		8744	A1436		8452	A1559		8212
A0984		1324	A1248.1		8748	A1438		8456	A1560		8232
A0992		1336	A1250		8740	A1442		8448	A1560.1		8236
A0994		8932	A1250.2		8727	A1444		8432	A1562		8252
A1114		8964	A1250.21		8727.1	A1444.1		8436	A1567		8246
A1114.9		8968	A1250.8		8704	A1448		8440	A1567.2		8246.5
A1115		8972	A1251		8728	A1450		8444	A1569		8248
A1115.1		8976	A1251.2		8736	A1454		8428	A1569.1		8248.5
A1116		8996	A1251.4		8732	A1458		8420	A1570		8249
A1118		8992	A1251.6		8716	A1458.1		8424	A1574		8256
A1120		8979	A1251.62		8712	A1462		8416	A1580		8180
A1120.1		8979.5	A1251.7		8720	A1463		8412	A1584		8164
A1121		8988	A1251.8		8724	A1466		8404	A1585		8168
A1122		8980	A1251.84		8708	A1466.1		8408	A1585.1		8172
A1123		8984	A1256		8628	A1470		8344	A1586		8160
A1126		8948	A1260		8632	A1471.5		8356.1	A1588		8152
A1126.1		8952	A1260.1		8636	A1471.51		8356	A1594		8144
A1127		8956	A1262		8648	A1472		8348	A1594.1		8148
A1127.4		8960	A1264		8656	A1476		8340	A1598		8140
A1127.6		8963	A1266		8652	A1478		8336	A1604		8120
A1129		8961	A1274		8660	A1480		8332	A1604.1		8124
A1129.2		8962	A1274.4		8664	A1482		8320	A1606		8128
A1132		8928	A1274.6		8700	A1484		8324	A1609		8132
A1132.2		8924	A1276		8668	A1484.1		8328	A1609.1		8136
A1144		8904	A1276.1		8672	A1486		8352	A1614		8112

# CROSS REFERENCE - INTERNATIONAL vs. U.S. LIGHT NUMBER

Inter.	—	U.S.	Inter.	—	U.S.	Inter.	—	U.S.	Inter.	—	U.S.
A1614.2		8116	A1748.1		7880	A2213.35		1512.6	A2491.5		1901
A1616		8108	A1752		7892	A2213.5		1513	A2491.6		1904
A1620		8100	A1752.1		7896	A2214		1536	A2496		1909
A1621		8104	A1758		7900	A2217.4		1470	A2496.4		1909.5
A1622		8176	A1760		7832	A2217.42		1471	A2496.6		1910
A1632		8092	A1762		7836	A2222		1516	A2496.8		1910.5
A1638		8080	A1762.1		7840	A2222.5		1520	A2498		1920
A1640		8084	A1768		7824	A2222.6		1524	A2499.6		1924
A1641		8088	A1770		7820	A2223		1532	A2506		1928
A1644		8068	A1774		7808	A2265		1568	A2508		1932
A1644.1		8072	A1774.1		7812	A2265.2		1572	A2515		1946
A1646		8076	A1780		7816	A2265.3		1573	A2515.1		1946.1
A1648		8064	A1782		7804	A2265.35		1573.1	A2518		1952
A1649		8054	A1784		7800	A2272		1588	A2518.5		1953
A1650		8056	A1786		7796	A2273		1576	A2520		1954
A1651		8060	A1790		7792	A2273.3		1580	A2520.1		1954.1
A1654		8020	A1791		7790	A2274		1584	A2530.2		1957
A1655		8024	A1792		7780	A2280		1620	A2578		1768
A1656		8028	A1794		7784	A2284		1604	A2580		1960
A1660		8036	A1794.1		7788	A2286		1600	A2582		1964
A1662		8044	A1796		7772	A2288		1612	A2586		1968
A1664		8048	A1796.1		7776	A2290		1608	A2588		1980
A1666		8040	A1799.9		7768	A2290.8		1614	A2590		1972
A1668		8052	A1800		7764	A2292		1616	A2592		1976
A1670		8012	A1800.1		7760	A2304		1624	A2596		1992
A1672		8016	A1804		7758	A2308		1628	A2598		1988
A1673		8006	A1805		7756	A2318.2		1652	A2599		1984
A1673.1		8006.1	A1808		7740	A2320		1640	A2616		2000
A1674		7976	A1810		7744	A2324		1648	A2616.1		2004
A1675		7988	A1812		7748	A2325		1650	A2620		2008
A1676		7980	A1812.1		7752	A2336		1668	A2620.1		2012
A1676.1		7984	A1816		7732	A2342		1676	A2626		2020
A1680		7972	A1818		7724	A2344		1680	A2627		2024
A1682		8008	A1818.1		7728	A2346		1688	A2627.1		2028
A1686		8000	A1820		7720	A2351.5		1767	A2634		2029
A1686.1		8004	A1822		7716	A2352		1765	A2636		2030
A1695		7996	A1826		7704	A2379		1720	A2636.2		2031
A1697		7964	A1826.1		7708	A2390		1732	A2644		2032
A1698		7960	A1831		7712	A2391		1736	A2657		2044
A1701		7954	A1836		7692	A2392		1724	A2663		2056
A1702		7956	A1838		7700	A2394		1728	A2664		2052
A1703		7952	A1956		1424	A2397		1744	A2664.85		2055
A1704		7948	A1971		1368	A2398		1740	A2666		2057
A1708		7940	A1972		1372	A2400		1748	A2667		2058
A1710		7936	A1976		1376	A2400.1		1752	A2667.2		2059
A1712		7928	A1977		1378	A2421		1766	A2667.4		2062
A1713		7932	A1979		1384	A2425		1788	A2667.6		2060
A1713.55		7926	A1996		1404	A2426		1780	A2667.8		2061
A1714		7924	A2009.7		1400	A2427.2		1784	A2669		2064
A1716		7920	A2170		1420	A2450		1824	A2674		2072
A1720		7916	A2172		1421	A2452		1828	A2675		2068
A1722		7904	A2184		1432	A2454		1832	A2676		2076
A1724		7908	A2184.1		1436	A2456		1836	A2681		2084
A1724.1		7912	A2187		1440	A2460		1840	A2682		2080
A1726		7856	A2192		1444	A2472		1844	A2684		2094
A1730		7852	A2194		1448	A2474		1848	A2686		2092
A1734		7848	A2196.1		1451	A2479		1856	A2690		2095
A1738		7844	A2203.2		1468	A2481		1864	A2692		2096
A1740		7860	A2204		1484	A2483		1868	A2700		2104
A1742		7864	A2204.15		1488	A2484		1872	A2702		2108
A1744		7868	A2204.2		1492	A2484.2		1876	A2702.5		2112
A1745		7884	A2204.62		1500	A2484.4		1880	A2708		2116
A1745.4		7888	A2206		1504	A2484.6		1882	A2724		2140
A1746		7872	A2208		1508	A2487		1888	A2726		2148
A1748		7876	A2213.3		1512.5	A2489		1892	A2728		2156

# CROSS REFERENCE - INTERNATIONAL vs. U.S. LIGHT NUMBER

Inter.	—	U.S.	Inter.	—	U.S.	Inter.	—	U.S.	Inter.	—	U.S.
A2744		2160	A2918.4		2494.1	A3222		2640	A3492		2944
A2744.1		2164	A2918.5		2494.2	A3222.1		2644	A3493		2952
A2754		2180	A2918.6		2494.3	A3223		2648	A3493.2		2956
A2760		2184	A2918.7		2493.2	A3223.1		2652	A3493.3		2960
A2762		2188	A2918.8		2493.1	A3226		2656	A3498.2		2968
A2763		2192	A2918.9		2493	A3226.1		2660	A3498.4		2972
A2764		2196	A2919		2396	A3228		2664	A3499		2976
A2766		2172	A2923		2416.1	A3228.1		2668	A3499.2		2980
A2766.1		2176	A2925		2416	A3229		2672	A3503		2982
A2770		2200	A2925.9		2412	A3230		2676	A3506		2984
A2770.1		2204	A2929		2418	A3238		2684	A3508		2985
A2775		2208	A2934		2420	A3240		2688	A3521		2992
A2775.2		2212	A2935		2424.1	A3240.1		2692	A3522		2988
A2775.5		2216	A2936		2424	A3246		2696	A3527		3002
A2776		2224	A2937.4		2423	A3250		2704	A3528		3000
A2778		2226	A2937.8		2422	A3252		2700	A3534		3004
A2780		2228	A2938.3		2421	A3253		2708	A3534.1		3008
A2784		2232	A2940		2432	A3254		2712	A3544		3012
A2785		2236	A2942		2428	A3256		2716	A3558		3016
A2802		2248	A2945		2444	A3258		2720	A3562		3020
A2804		2244	A2947		2448	A3258.1		2724	A3568		3032
A2810		2252	A2949		2452	A3264		2728	A3570		3036
A2812		2256	A2949.1		2456	A3274		2736	A3574		3040
A2814		2260	A2951		2460	A3280		2740	A3580		3052
A2816		2262	A2951.5		2464	A3282		2752	A3582		3056
A2816.5		2263	A2954		2466	A3282.1		2756	A3582.1		3060
A2818		2264	A2956		2468	A3284		2744	A3583		3068
A2819		2268	A2960		2472	A3286		2748	A3583.5		3066
A2820		2272	A2962		2480	A3304		2776	A3584		3064
A2822		2284	A2964		2488	A3308		2784	A3586		3072
A2822.1		2288	A2978		2492	A3312		2788	A3600		3084
A2823		2280	A3026		2508	A3312.2		2792	A3602		3088
A2824		2276	A3028		2496	A3314		2796	A3604		3092
A2834		2292	A3030		2504	A3316		2800	A3606		3096
A2834.1		2296	A3032		2500	A3316.1		2804	A3607		3080
A2840		2300	A3036		2512	A3332		2808	A3607.5		3076
A2840.1		2304	A3050		2532	A3348		2812	A3608		3024
A2841		2308	A3052		2536	A3350		2816	A3608.5		3028
A2846		2312	A3054		2540	A3350.1		2820	A3610		3100
A2846.1		2316	A3060		2552	A3364		2824	A3610.2		3104
A2850		2320	A3064		2556	A3368		2828	A3610.4		3108
A2852		2324	A3066		2560	A3368.1		2832	A3610.6		3112
A2856		2336	A3068		2564	A3391		2836	A3610.8		3116
A2856.1		2340	A3070		2568	A3392		2848	A3610.9		3120
A2860		2332	A3070.1		2572	A3394		2840	A3610.92		3124
A2864		2344	A3073		2576	A3396.1		2844	A3610.94		3128
A2866		2348	A3073.2		2580	A3408		2856	A3610.96		3132
A2868		2352	A3078		2588	A3416		2864	A3611		3136
A2872		2356	A3080		2584	A3418		2868	A3611.2		3140
A2874		2360	A3082		2592	A3418.1		2872	A3612		3144
A2878		2364	A3082.1		2596	A3424		2876	A3612.5		3146
A2884		2368	A3090		2600	A3426		2880	A3614		3160
A2887		2374	A3100		2604	A3428		2884	A3615		3148
A2904		2380	A3100.1		2608	A3434		2896	A3616		3152
A2912		2388	A3102		2612	A3436		2892	A3616.1		3156
A2915		2390	A3104.5		2614	A3440		2900	A3626		3164
A2915.1		2390.1	A3107		2617	A3442		2908	A3632		3168
A2915.4		2393	A3108		2616	A3444		2912	A3635		3172
A2915.41		2394	A3129		2624	A3446		2916	A3636		3176
A2916		2392	A3129.5		2628	A3447.7		2922	A3640		3180
A2916.5		2408	A3142		2620	A3448		2920	A3640.1		3184
A2916.9		2409.1	A3212		2633	A3449		2924	A3641		3188
A2917		2409.2	A3212.1		2634	A3454		2928	A3642		3192
A2917.1		2409	A3216		2632	A3457		2932	A3644		3196
A2918.2		2494	A3220		2636	A3460		2936	A3644.1		3200

# CROSS REFERENCE - INTERNATIONAL vs. U.S. LIGHT NUMBER

Inter.	—	U.S.	Inter.	—	U.S.	Inter.	—	U.S.	Inter.	—	U.S.
A3650		3204	A3804		3416	A3880		3576	A3978		3832
A3654		3220	A3804.2		3417	A3880.6		3584	A3979		3840
A3656		3212	A3805		3418	A3881		3585	A3980		3844
A3656.1		3216	A3807		3420	A3881.3		3588	A3981		3848
A3662		3208	A3810		3424	A3881.4		3592	A3984		3860
A3676		3228	A3811		3426	A3881.5		3596	A3986		3864
A3680		3232	A3812		3428	A3881.7		3598	A3990		3868
A3684		3236	A3812.5		3429	A3882		3600	A3992		3872
A3685		3240	A3812.8		3429.5	A3882.7		3602	A3993		3876
A3688		3244	A3813.1		3430	A3883		3604	A3994.25		3881
A3688.5		3246	A3813.5		3431	A3883.2		3606	A3995		3882
A3693		3248	A3814		3432	A3883.7		3608	A3995.6		3884
A3694		3252	A3815		3436	A3885		3616	A3995.8		3885
A3700		3224	A3815.3		3437	A3885.5		3620	A3996		3888
A3706		3268	A3815.6		3438	A3886		3612	A3996.4		3892
A3708		3264	A3816		3440	A3886.2		3612.5	A3996.6		3894
A3715		3270	A3817		3444	A3887		3624	A3997		3896
A3716		3272	A3817.5		3448	A3887.5		3626	A3998		3897
A3718		3276	A3818		3452	A3888		3628	A3999.2		3898
A3722		3280	A3819		3456	A3888.2		3632	A3999.21		3898.1
A3724		3284	A3820		3460	A3888.3		3636	A3999.5		3899
A3728		3288	A3820.5		3464	A3900		3640	A4000		3904
A3729		3254	A3821		3468	A3902		3644	A4000.1		3908
A3734		3290	A3822		3476	A3903		3648	A4004		3900
A3736		3292	A3822.1		3480	A3904		3660	A4008		3924
A3737.2		3296	A3822.29		3488	A3905		3668	A4009.5		3932
A3737.4		3300	A3822.3		3484	A3905.3		3664	A4010.1		3928
A3738		3304	A3822.31		3492	A3905.35		3678	A4011.5		3933
A3740		3308	A3822.5		3472	A3905.4		3672	A4011.51		3934
A3750		3312	A3822.6		3504	A3905.6		3676	A4011.7		3935
A3753		3314	A3822.61		3505	A3905.8		3680	A4012		3936
A3756		3316	A3822.8		3512	A3906		3684	A4012.5		3937
A3766		3320	A3823.1		3496	A3906.2		3688	A4019		3944
A3767		3322	A3823.3		3497	A3906.4		3692	A4019.1		3948
A3772		3324	A3823.32		3498	A3906.6		3696	A4020		3952
A3774		3326	A3823.34		3499	A3907		3700	A4020.3		3954
A3776		3340	A3823.6		3516	A3908		3720	A4020.5		3955
A3776.5		3342	A3823.64		3501	A3909.2		3712	A4028		3912
A3778		3344	A3823.7		3502	A3909.6		3708	A4030		3914
A3779		3348	A3823.8		3503	A3910		3724	A4032		3916
A3780		3352	A3824		3520	A3910.2		3725	A4036		3920
A3781		3360	A3828		3524	A3916		3704	A4047		3958
A3782		3356	A3829		3526	A3920		3735	A4047.1		3959
A3783		3364	A3830		3528	A3925		3744	A4050		3960
A3783.4		3368	A3830.4		3530.3	A3926		3748	A4052		3968
A3784		3372	A3830.5		3530.5	A3927		3772	A4056		3964
A3786		3376	A3830.85		3530	A3927.5		3774	A4058		3972
A3787		3377	A3832		3540	A3928		3756	A4060		3976
A3787.1		3378	A3834		3542	A3928.2		3760	A4064		3980
A3787.2		3380	A3838		3544	A3928.4		3762	A4068		3984
A3787.4		3384	A3840		3548	A3930		3764	A4069		3986
A3787.6		3394	A3844		3552	A3930.2		3768	A4074		3988
A3787.7		3388	A3844.5		3553	A3934		3816	A4076		3992
A3787.8		3402	A3844.9		3554.5	A3938		3812	A4080		4012
A3788		3392	A3845		3554	A3940		3808	A4082		4016
A3790		3396	A3845.5		3555	A3942		3804	A4084		4020
A3793.5		3403	A3847		3556	A3944		3800	A4087		4024
A3794		3404	A3850		3560	A3948		3792	A4092		4004
A3795		3405	A3854.7		3561	A3952		3788	A4093		4005
A3795.5		3406	A3858		3564	A3956		3790	A4093.1		4005.5
A3795.6		3406.5	A3860		3562	A3960		3780	A4096		3996
A3795.7		3407	A3868		3568	A3968		3820	A4098		4000
A3796		3408	A3869		3574	A3972		3824	A4102		4008
A3802		3412	A3870		3572	A3976		3828	A4107		4028
A3803.8		3413	A3874		3580	A3977		3836	A4109		4030

# CROSS REFERENCE - INTERNATIONAL vs. U.S. LIGHT NUMBER

Inter.	—	U.S.	Inter.	—	U.S.	Inter.	—	U.S.	Inter.	—	U.S.
A4112		4032	A4279		4256	A4421.2		4472	A4582		4768
A4122		4036	A4279.1		4260	A4422		4475	A4586		4780
A4124		4040	A4282		4268	A4422.1		4476	A4588		4776
A4125		4042	A4284		4264	A4422.5		4508	A4588.4		4778
A4125.3		4043	A4290		4272	A4423		4492	A4592		4784
A4126		4044	A4291		4273	A4423.5		4490	A4594		4786
A4127		4048	A4296		4276	A4425		4518	A4604		4796
A4127.1		4052	A4297		4280	A4425.5		4504	A4607		4804
A4132		4080	A4297.5		4282	A4426		4519	A4607.1		4808
A4132.4		4082	A4298		4284	A4426.5		4524	A4608		4812
A4133		4084	A4299		4288	A4427.4		4528	A4610		4816
A4140		4092	A4304		4296	A4427.45		4530	A4620		4818
A4150		4093	A4308		4300	A4427.5		4532	A4620.1		4818.1
A4150.2		4094	A4310		4304	A4427.6		4536	A4622		4820
A4151		4095	A4314		4308	A4427.9		4542	A4624		4822
A4160		4076	A4326		4316	A4428.6		4544	A4624.1		4823
A4164		4060	A4330		4320	A4428.8		4549	A4624.2		4823.5
A4165		4064	A4332		4328	A4438		4552	A4630		4824
A4170		4072	A4336		4324	A4440		4556	A4633.99		4827
A4172		4068	A4336.3		4324.5	A4442		4564	A4634		4828
A4174		4056	A4344		4332	A4442.1		4568	A4640		4832
A4174.5		4058	A4346		4336	A4444		4560	A4670		4844
A4175.4		4096	A4346.5		4338	A4458		4572	A4671		4848
A4176		4100	A4348		4340	A4470		4580	A4672		4852
A4178		4104	A4350		4344	A4472		4584	A4672.6		4856
A4179		4105	A4352		4348	A4476		4588	A4676		4860
A4180		4108	A4355		4348.2	A4478		4592	A4677		4861
A4183		4112	A4355.2		4348.4	A4484		4596	A4688		4864
A4186		4120	A4358		4348.6	A4486		4600	A4692		4868
A4190		4128	A4358.2		4348.8	A4488		4604	A4692.1		4872
A4192		4132	A4359		4349	A4490		4608	A4698		4880
A4196		4136	A4359.2		4350	A4494		4612	A4700		4884
A4200		4140	A4360		4352	A4496		4616	A4702		4888
A4202		4144	A4361		4354	A4498		4620	A4710		4892
A4202.1		4148	A4362		4356	A4501		4628	A4720		4896
A4205		4150	A4370		4364	A4504		4636	A4730		4928
A4206		4151	A4374		4372	A4506		4640	A4732		4932
A4208		4152	A4374.2		4376	A4508		4648	A4734		4924
A4212		4156	A4392		4392	A4510		4644	A4740		4936
A4214		4160	A4398		4380	A4511		4652	A4740.1		4940
A4218		4164	A4400.1		4384	A4511.2		4654	A4744		4944
A4226		4168	A4400.2		4388	A4512		4656	A4745		4952
A4230		4172	A4404		4404	A4513		4660	A4748		4956
A4230.6		4176	A4405		4396	A4516		4672	A4752		4960
A4232		4180	A4406		4400	A4519		4680	A4754		4968
A4236		4208	A4408		4403	A4520		4684	A4756		4964
A4237		4212	A4409		4424	A4521		4688	A4760		4972
A4238		4216	A4410.3		4429	A4527		4693	A4760.5		4980
A4240		4220	A4410.32		4430	A4527.2		4694	A4761		4976
A4242		4224	A4411		4428	A4527.4		4695	A4762		4984
A4248		4228	A4411.4		4440	A4527.6		4696	A4764		4988
A4252		4240	A4411.6		4441	A4532		4700	A4770		4992
A4254		4236	A4411.61		4441.1	A4536		4708	A4784		5028
A4256		4232	A4411.8		4442	A4538		4704	A4785		5032
A4259		4182	A4412		4444	A4546		4716	A4786		5036
A4260		4184	A4412.1		4444.1	A4548		4724	A4796		5040
A4262		4188	A4412.7		4436	A4548.1		4728	A4798		5044
A4263		4192	A4412.71		4436.1	A4554		4732	A4799		5048
A4264		4196	A4412.8		4432	A4558		4740	A4820		5052
A4265		4200	A4413.6		4448	A4562		4744	A4821		5054
A4266.4		4204	A4413.7		4452	A4566		4764	A4822		5064
A4268		4206	A4413.72		4456	A4568		4760	A4822.1		5068
A4272		4244	A4414		4416	A4574		4752	A4823		5056
A4274		4248	A4420		4464	A4574.1		4756	A4824		5072
A4276		4252	A4421		4466	A4580		4772	A4824.1		5076

# CROSS REFERENCE - INTERNATIONAL vs. U.S. LIGHT NUMBER

Inter.	—	U.S.	Inter.	—	U.S.	Inter.	—	U.S.	Inter.	—	U.S.
A4825		5080	A5140		5420	A5311.1		5708	A5474.2		5956
A4825.1		5084	A5146		5428	A5311.2		5696	A5478		5972
A4833.2		5088	A5155		5440	A5311.21		5700	A5480		6156
A4840		5060	A5156.5		5444	A5313.6		5669	A5484		6144
A4847		5112	A5157		5448	A5313.61		5669.1	A5486		6140
A4852		5096	A5157.1	5452	5456	A5316		5712	A5489		5996
A4852.1		5100	A5160		5464	A5316.1		5716	A5489.1		6000
A4860		5124	A5164.4		5465	A5317		5720	A5490		6010
A4862		5116	A5164.5		5466	A5317.2		5724	A5490.1		6010.1
A4862.1		5120	A5166		5468	A5319.5		5725	A5490.2		6012
A4863		5132	A5168		5472	A5319.6		5726	A5490.4		6016
A4863.3		5136	A5174		5476	A5322		5728	A5490.6		6020
A4864		5128	A5174.5		5478	A5328		5732	A5490.61		6020.1
A4876		5144	A5178		5484	A5336		5736	A5492		6024
A4892		5152	A5181		5492	A5338		5740	A5492.21		6032
A4892.1		5156	A5182		5496	A5342		5744	A5494		6036
A4893		5160	A5184		5500	A5356		5748	A5494.1		6040
A4896		5172	A5186		5504	A5358		5756	A5497		6044
A4900		5168	A5198		5512	A5360		5760	A5500.9		6052
A4902		5164	A5204		5520	A5364		5764	A5501		6056
A4918		5176	A5205		5522	A5367	5768, 5772		A5504		6060
A4920		5180	A5210		5528	A5367.1		5776	A5505		6062
A4922		5184	A5212		5532	A5369		5780	A5505.1		6062.1
A4927.6		5192	A5213		5536	A5370		5769	A5507		6064
A4940		5200	A5214		5540	A5370.2		5770	A5508		6068
A4952		5213	A5220		5544	A5373		5794	A5511		6072
A4952.2		5214	A5234		5548	A5374		5784	A5512		6076
A4952.4		5215	A5238		5552	A5376		5788	A5513		6080
A4952.6		5215.4	A5246		5556	A5377		5792	A5514		6084
A4954		5216	A5254		5560	A5381		5797	A5515		6088
A4956		5220	A5256		5564	A5389		5805	A5516		6092
A4958		5224	A5257		5566	A5390		5806	A5518		6100
A4972		5232	A5257.2		5566.5	A5391		5800	A5519		6108
A4974		5236	A5258		5568	A5391.1		5804	A5520		6104
A4975		5240	A5258.6		5569.1	A5394		5807	A5521		6116
A4977		5244	A5262		5572	A5395		5808	A5522		6112
A4978		5248	A5264		5576	A5395.2		5808.1	A5523		6120
A4978.2		5252	A5266		5580	A5395.3		5808.2	A5525		6128
A4979		5256	A5266.1		5584	A5395.4		5808.3	A5526		6132
A4979.2		5260	A5270		5588	A5395.6		5808.4	A5535		5984
A4980.7		5273	A5274		5592	A5395.8		5808.5	A5536		5988
A4981		5276	A5276		5596	A5402		5812	A5536.1		5992
A4983		5278	A5278		5600	A5406		5816	A5541		5994
A4985		5280	A5282		5604	A5406.6		5820	A5566		6164
A4994		5300	A5284		5608	A5407		5824	A5570		6172
A5020		5324	A5285		5612	A5410		5832	A5572		6176
A5024		5320	A5286		5616	A5411		5856	A5572.1		6180
A5026		5328	A5286.1		5624	A5412		5836	A5573		6188
A5058		5340	A5286.2		5628	A5413		5844	A5582		6168
A5063		5336	A5286.3		5620	A5419		5840	A5584		6196
A5091		5344	A5287		5632	A5426		5860	A5584.2		6200
A5092		5348	A5287.1		5636	A5428		5864	A5586		6204
A5093		5352	A5291		5640	A5430		5900	A5586.4		6204.5
A5102		5356	A5292		5644	A5440		5876	A5590		6208
A5104		5364	A5292.39		5648	A5440.3		5880	A5592		6212
A5115		5380	A5292.4		5652	A5454		5904	A5593		6216
A5116		5384	A5292.41		5656	A5460		5908	A5594		6220
A5116.05		5384.1	A5294.9		5660	A5462		5912	A5596		6224
A5118		5388	A5295		5664	A5467		5920	A5600		6228
A5119		5392	A5295.1		5668	A5467.1		5921	A5610		6232
A5120		5395	A5307		5672	A5470		5928	A5610.1		6236
A5125		5396	A5307.1		5676	A5470.2		5932	A5612		6240
A5127		5400	A5308		5680	A5472.5		5944	A5615		6242
A5132		5408	A5310.2		5692	A5473		5948	A5616		6244
A5138		5416	A5311		5704	A5474		5952	A5618		6248

# CROSS REFERENCE - INTERNATIONAL vs. U.S. LIGHT NUMBER

Inter.	—	U.S.	Inter.	—	U.S.	Inter.	—	U.S.	Inter.	—	U.S.
A5621	.....	6252	A5854	.....	6576	A6006	.....	6840	A6117	.....	7148
A5630	.....	6256	A5856	.....	6580	A6007	.....	6844	A6120	.....	7156
A5631	.....	6268	A5858	.....	6584	A6011	.....	6856	A6122	.....	7160
A5634	.....	6260	A5865	.....	6592	A6014.7	.....	6872	A6124	.....	7152
A5636	.....	6264	A5868	.....	6596	A6015	.....	6874	A6127	.....	7168
A5638	.....	6272	A5872	.....	6600	A6015.1	.....	6876	A6128	.....	7172
A5642	.....	6276	A5874	.....	6604	A6017	.....	6888	A6130	.....	7164
A5644	.....	6280	A5876	.....	6608	A6019	.....	6892	A6130.2	.....	7188
A5655	.....	6284	A5877	.....	6612	A6019.3	.....	6896	A6130.3	.....	7192
A5658.1	.....	6292	A5878	.....	6616	A6019.6	.....	6900	A6130.5	.....	7193
A5658.5	.....	6294	A5882	.....	6620	A6019.8	.....	6904	A6130.6	.....	7193.2
A5665	.....	6296	A5884	.....	6628	A6020	.....	6908	A6130.8	.....	7193.4
A5666	.....	6300	A5886	.....	6632	A6020.6	.....	6916	A6131	.....	7176
A5670	.....	6304	A5886.4	.....	6626	A6021	.....	6920	A6134.5	.....	7180
A5702	.....	6308	A5887.9	.....	6625	A6021.6	.....	6928	A6136	.....	7196
A5703	.....	6312	A5889	.....	6622	A6021.8	.....	6932	A6138	.....	7200
A5704	.....	6316	A5894	.....	6648	A6022	.....	6936	A6140	.....	7208
A5704.1	.....	6320	A5898	.....	6652	A6022.2	.....	6948	A6142	.....	7204
A5705	.....	6324	A590.11	.....	685	A6022.4	.....	6952	A6152	.....	7216
A5707	.....	6328	A5900	.....	6656	A6022.6	.....	6960	A6152.1	.....	7220
A5708	.....	6332	A5900.3	.....	6657	A6023	.....	6956	A6158	.....	7224
A5709	.....	6336	A5900.5	.....	6658	A6024	.....	6964	A6162	.....	7228
A5710	.....	6340	A5903.6	.....	6662	A6025	.....	6968	A6163	.....	7232
A5712	.....	6344	A5904	.....	6664	A6028	.....	6972	A6164	.....	7236
A5718	.....	6356	A5906	.....	6668	A6031	.....	6984	A6168	.....	7240
A5722	.....	6360	A5908	.....	6672	A6033	.....	7000	A6172	.....	7244
A5722.1	.....	6364	A5909	.....	6673	A6033.1	.....	7004	A6174	.....	7248
A5728	.....	6368	A5910.5	.....	6682	A6033.4	.....	6988	A6176	.....	7252
A5728.1	.....	6372	A5912	.....	6692	A6034	.....	6996	A6180	.....	7256
A5732	.....	6376	A5920	.....	6696	A6035	.....	6992	A6186	.....	7260
A5736	.....	6380	A5920.4	.....	6700	A6037	.....	7008	A6190	.....	7264
A5748	.....	6392	A5928	.....	6704	A6037.2	.....	7012	A6196	.....	7268
A5749	.....	6396	A5932	.....	6708	A6042	.....	7016	A6198.5	.....	7272
A5757	.....	6406	A5934	.....	6712	A6043	.....	7017	A6198.51	.....	7276
A5758	.....	6404	A5938	.....	6714	A6043.2	.....	7018	A6200	.....	7280
A5763	.....	6417	A5944	.....	6720	A6044	.....	7020	A6203	.....	7284
A5764	.....	6420	A5946	.....	6724	A6060	.....	7028	A6203.5	.....	7285
A5774	.....	6428	A5946.1	.....	6728	A6062	.....	7032	A6203.51	.....	7285.1
A5776	.....	6432	A5948	.....	6732	A6064	.....	7036	A6204	.....	7288
A5778	.....	6436	A5949	.....	6736	A6065	.....	7038	A6204.2	.....	7288.4
A5782	.....	6440	A5952	.....	6740	A6071	.....	7040	A6204.21	.....	7288.8
A5798	.....	6460	A5953	.....	6752	A6072	.....	7044	A6204.4	.....	7289
A5800	.....	6464	A5958	.....	6756	A6073	.....	7056	A6206	.....	7292
A5801	.....	6468	A5962	.....	6760	A6074	.....	7064	A6208	.....	7296
A5802	.....	6472	A5962.4	.....	6764	A6074.1	.....	7068	A6211.2	.....	7298
A5806	.....	6476	A5963.3	.....	6768	A6075	.....	7072	A6213.6	.....	7300
A5808	.....	6484	A5970	.....	6776	A6076	.....	7060	A6213.8	.....	7304
A5810	.....	6488	A5973	.....	6784	A6076.5	.....	7062	A6214	.....	7308
A5812	.....	6492	A5974	.....	6788	A6084	.....	7076	A6214.2	.....	7312
A5814	.....	6496	A5976	.....	6792	A6088	.....	7080	A6214.4	.....	7316
A5814.1	.....	6500	A5980	.....	6794	A6092	.....	7084	A6214.6	.....	7320
A5818	.....	6504	A5986	.....	6804	A6095	.....	7088	A6214.8	.....	7324
A5820	.....	6508	A5986.4	.....	6808	A6096	.....	7092	A6214.9	.....	7297
A5822	.....	6512	A5987	.....	6800	A6098	.....	7096	A6214.91	.....	7297.1
A5826	.....	6516	A5987.5	.....	6801	A6100	.....	7100	A6214.95	.....	7297.5
A5828	.....	6520	A5988	.....	6796	A6101	.....	7104	A6214.96	.....	7297.51
A5830	.....	6524	A5992	.....	6812	A6104	.....	7108	A6215	.....	7328
A5836	.....	6532	A5993	.....	6816	A6105	.....	7112	A6216	.....	7332
A5837	.....	6536	A5999	.....	6819	A6106	.....	7116	A6222	.....	7336
A5838	.....	6540	A6000	.....	6820	A6107	.....	7120	A6224	.....	7340
A5842	.....	6544	A6001	.....	6822	A6108	.....	7124	A6228	.....	7352
A5847	.....	6560	A6002	.....	6824	A6110	.....	7128	A6232	.....	7360
A5848	.....	6564	A6003	.....	6828	A6112	.....	7132	A6236	.....	7364
A5849	.....	6568	A6004	.....	6832	A6114	.....	7140	A6244	.....	7368
A5850	.....	6572	A6005	.....	6836	A6116	.....	7144	A6244.1	.....	7372

# CROSS REFERENCE - INTERNATIONAL vs. U.S. LIGHT NUMBER

Inter.	—	U.S.	Inter.	—	U.S.	Inter.	—	U.S.	Inter.	—	U.S.
A6257	.....	7362	A6426	.....	7628	B0157	.....	9110	B0346.2	.....	9426
A6260	.....	7376	A6426.1	.....	7632	B0166.1	.....	9118	B0356	.....	9456
A6265	.....	7378	A6430	.....	7636	B0173.9	.....	9140	B0356.1	.....	9460
A6266	.....	7380	A6432	.....	7680	B0174	.....	9144	B0364	.....	9464
A6268	.....	7384	A6434	.....	7640	B0174.1	.....	9152	B0368	.....	9472
A6270	.....	7388	A6436	.....	7644	B0176	.....	9148	B0368.1	.....	9476
A6272	.....	7392	A6438	.....	7648	B0184	.....	9156	B0372	.....	9484
A6272.5	.....	7396	A6438.5	.....	7650	B0184.1	.....	9160	B0372.1	.....	9488
A6273.3	.....	7400	A6439	.....	7652	B0188	.....	9164	B0372.5	.....	9461.1
A6273.8	.....	7402	A6439.1	.....	7656	B0192	.....	9172	B0372.501	.....	9461.15
A6274	.....	7404	A6440	.....	7658	B0192.1	.....	9176	B0372.6	.....	9461.2
A6275.3	.....	7420	A6441	.....	7659	B0200	.....	9168	B0372.601	.....	9461.25
A6276	.....	7416	A6442	.....	7660	B0202	.....	9180	B0376	.....	9492
A6277.5	.....	7424	A6445	.....	7672	B0202.2	.....	9184	B0378	.....	9496
A6278	.....	7428	A6445.2	.....	7676	B0203	.....	9188	B0378.1	.....	9500
A6279	.....	7408	A6445.7	.....	7678	B0204	.....	9192	B0380	.....	9504
A6279.1	.....	7412	A6448	.....	7684	B0205	.....	9196	B0380.1	.....	9508
A6280	.....	7432	A6450	.....	7688	B0206	.....	9200	B0382	.....	9512
A6282	.....	7436	A7560.1	.....	1764	B0206.1	.....	9204	B0384	.....	9516
A6284	.....	7440	A7562.5	.....	1769	B0206.21	.....	9212	B0384.1	.....	9520
A6288	.....	7444	A7576.97	.....	1771	B0206.5	.....	9214	B0387.9	.....	9528
A6290	.....	7448	A7581.85	.....	9979	B0206.7	.....	9215	B0388	.....	9532
A6292	.....	7452	A7682	.....	10013	B0208	.....	9124	B0388.1	.....	9536
A6296	.....	7472	A7682.5	.....	10013.1	B0209	.....	9128	B0392	.....	9540
A6298	.....	7480	A7784	.....	10717.1	B0212	.....	9132	B0392.1	.....	9544
A6299	.....	7484	A7880	.....	11035	B0214	.....	9136	B0408	.....	9584
A6299.1	.....	7488	A8235	.....	3074	B0233	.....	9232	B0500	.....	9576
A6300	.....	7492	B0074	.....	9008	B0233.1	.....	9236	B0506	.....	9588
A6301	.....	7494	B0075	.....	9016	B0233.4	.....	9240	B0514	.....	9592
A6302	.....	7456	B0076	.....	9012	B0234	.....	9242	B0515	.....	9596
A6304	.....	7460	B0092	.....	9020	B0234.2	.....	9242.5	B0518	.....	9600
A6304.5	.....	7462	B0094	.....	9022	B0236	.....	9248	B0536	.....	9624
A6305	.....	7464	B0098	.....	9028	B0236.1	.....	9252	B0540	.....	9628
A6305.1	.....	7468	B0107	.....	9037	B0244	.....	9280	B0542	.....	9632
A6308	.....	7504	B0107.1	.....	9037.1	B0245	.....	9272	B0630	.....	9636
A6317	.....	7508	B0112	.....	9044	B0246	.....	9276	B0633.7	.....	9703.1
A6318	.....	7512	B0113	.....	9056	B0250	.....	9256	B0633.71	.....	9703.2
A6320	.....	7516	B0113.1	.....	9060	B0250.1	.....	9260	B0634	.....	9648
A6322	.....	7524	B0113.4	.....	9052	B0251	.....	9264	B0635	.....	9644
A6332	.....	7500	B0114	.....	9048	B0252	.....	9268	B0637	.....	9656
A6334	.....	7496	B0119	.....	9067	B0256	.....	9284	B0637.1	.....	9660
A6338	.....	7528	B0119.5	.....	9067.3	B0258	.....	9288	B0638	.....	9664
A6340.5	.....	7533	B0119.8	.....	9067.5	B0262	.....	9292	B0638.1	.....	9668
A6340.51	.....	7534	B0120	.....	9067.6	B0262.1	.....	9296	B0642	.....	9672
A6342	.....	7536	B0122	.....	9076	B0268	.....	9300	B0642.1	.....	9676
A6343	.....	7540	B0123	.....	9074	B0282	.....	9320	B0646	.....	9684
A6344.6	.....	7544	B0123.2	.....	9073	B0282.1	.....	9324	B0646.1	.....	9688
A6344.61	.....	7548	B0124	.....	9068	B0286	.....	9328	B0646.41	.....	9689
A6345	.....	7552	B0124.1	.....	9072	B0288	.....	9329	B0646.45	.....	9689.1
A6346	.....	7556	B0124.16	.....	9075	B0296	.....	9348	B0646.47	.....	9689.2
A6347.15	.....	7560	B0124.17	.....	9075.1	B0298	.....	9352	B0646.5	.....	9689.3
A6347.16	.....	7564	B0124.18	.....	9075.5	B0299	.....	9356	B0646.7	.....	9690
A6347.41	.....	7568	B0124.19	.....	9075.51	B0300	.....	9360	B0646.75	.....	9690.1
A6348	.....	7576	B0124.2	.....	9075.2	B0300.1	.....	9364	B0647	.....	9692
A6350	.....	7580	B0124.5	.....	9075.7	B0318	.....	9388	B0647.7	.....	9702
A6392	.....	7584	B0124.51	.....	9075.72	B0319.9	.....	9392	B0647.701	.....	9703
A6394	.....	7588	B0125	.....	9096	B0320	.....	9396	B0648	.....	9696
A6396	.....	7592	B0125.1	.....	9100	B0320.1	.....	9400	B0648.31	.....	9701
A6406	.....	7596	B0126	.....	9082	B0330	.....	9404	B0662	.....	9704
A6408	.....	7600	B0126.1	.....	9082.1	B0336	.....	9408	B0662.1	.....	9708
A6410	.....	7604	B0128	.....	9088	B0338	.....	9412	B0670	.....	9720
A6416	.....	7612	B0128.1	.....	9092	B0346	.....	9420	B0670.2	.....	9716
A6417	.....	7616	B0131.5	.....	9093	B0346.1	.....	9422	B0673	.....	9724
A6417.5	.....	7622	B0145	.....	9000	B0346.11	.....	9422.1	B0673.1	.....	9728
A6422	.....	7624	B0147	.....	9002	B0346.12	.....	9424	B0711.4	.....	9732

# CROSS REFERENCE - INTERNATIONAL vs. U.S. LIGHT NUMBER

Inter.	—	U.S.	Inter.	—	U.S.	Inter.	—	U.S.	Inter.	—	U.S.
B0712		9736	B0894		9968	B1225.1		10332	B1431.1		10560
B0712.1		9740	B0896		9972	B1226		10350	B1436		10564
B0750		9748	B0898		9976	B1228		10352	B1438		10552
B0751		9752	B0904		9980	B1228.1		10356	B1442		10568
B0751.1		9756	B0904.5		9982	B1230		10381	B1444		10569
B0751.4		9772	B0908		9984	B1230.1		10382	B1453.9		10574.1
B0751.6		9768	B0912		9992	B1239		10368	B1454		10574
B0752		9776	B0920		9996	B1239.1		10372	B1454.1		10574.2
B0753		9780	B0924		10000	B1240		10376	B1474		10575
B0753.1		9760	B0926		10004	B1240.1		10380	B1474.1		10575.1
B0753.11		9764	B0938		10008	B1241		10375	B1499		10575.2
B0753.2		9758	B0970		10032	B1256.5		10390	B1574.35		10579
B0753.25		9758.1	B0972.5		10035	B1256.9		10388.1	B1578.6		10578
B0753.4		9757	B0976		10040	B1257		10388	B1595.6		10579.1
B0753.45		9757.1	B0981		10040.5	B1257.1		10389.1	B1606		10580
B0754		9766	B0983		10048	B1258		10392	B1609		10584
B0754.05		9765	B0987		10043	B1260		10396	B1610		10592
B0754.8		9759	B0987.2		10042	B1262		10400	B1624		10596
B0755		9782	B0987.4		10044	B1264		10404	B1652		10600
B0760		9784	B0989		10045	B1264.6		10406	B1672		10604
B0766		9792	B1010		10052	B1268		10408	B1676.1		10612
B0766.1		9796	B1012		10056	B1268.1		10412	B1686		10620
B0767		9808	B1044		10053	B1274		10416	B1688		10628
B0768		9800	B1046		10054	B1275		10420	B1700		10640
B0769		9804	B1051		10014	B1297.17		10422	B1704		10644
B0770		9812	B1052		10060	B1297.18		10422.1	B1706		10648
B0783		9832	B1054		10072	B1298		10423	B1714		10652
B0784		9836	B1074		10092	B1312		10136	B1728		10636
B0785		9840	B1078		10100	B1318		10156	B1735		10676
B0786		9839	B1080		10104	B1318.2		10160	B1738		10692
B0786.9		9841	B1082		10108	B1320		10164	B1738.6		10696
B0789		9844	B1082.1		10112	B1324		10168	B1740		10700
B0789.1		9848	B1084		10116	B1324.1		10172	B1746		10704
B0800		9856	B1084.1		10120	B1325		10176	B1748		10708
B0800.1		9860	B1092		10124	B1325.2		10180	B1749		10712
B0842		9864	B1096.5		10128	B1326		10148	B1757		10719.5
B0849		9876	B1112		10192	B1326.1		10152	B1758		10719.6
B0852.1		9948	B1113		10193	B1328		10184	B1759		10719.7
B0856		9880	B1113.2		10194	B1344		10436	B1772		10720
B0858		9884	B1122		10316	B1348.49		10439	B1772.1		10724
B0859		9952	B1134		10248	B1348.5		10439.1	B1772.2		10728
B0864		9900	B1134.1		10248.1	B1349.8		10442.1	B1774		10730
B0864.1		9904	B1138		10212	B1349.9		10442.2	B1778		10744
B0865		9912	B1138.1		10216	B1352		10576	B1778.1		10748
B0867		9924	B1139		10220	B1361		10445.1	B1779		10752
B0867.5		9928	B1139.1		10224	B1361.1		10445	B1779.1		10756
B0870		9936	B1152		10300	B1361.2		10446	B1780		10732
B0875		9951.1	B1156		10264	B1363		10448	B1780.2		10740
B0875.1		9951.2	B1156.1		10268	B1363.2		10452	B1780.4		10736
B0876		9950	B1158		10272	B1368		10460	B1782		10760
B0876.2		9951	B1159		10276	B1370		10464	B1784		10768
B0876.22		9949.3	B1163		10284	B1374		10468	B1784.4		10772
B0876.5		9950.1	B1164		10288	B1395.9		10502.1	B1786		10776
B0876.501		9950.2	B1166		10292	B1396		10502	B1788		10780
B0876.55		9951.3	B1168		10296	B1396.1		10502.2	B1794		10788
B0876.6		9949.2	B1188		10308	B1396.2		10503	B1796		10792
B0877		9949	B1196		10320	B1411		10519	B1804		10796
B0877.1		9949.1	B1198		10324	B1412		10520	B1805		10800
B0877.4		9951.4	B1204		10335	B1412.1		10524	B1817.4		10806
B0877.41		9951.5	B1210		10336	B1414		10525	B1817.41		10806.1
B0877.5		9951.6	B1214		10340	B1416		10528	B1818.5		10802
B0877.6		9951.7	B1214.1		10344	B1416.1		10532	B1818.51		10802.1
B0881		9956	B1224		10360	B1425		10572	B1819.6		10840
B0886		9960	B1224.1		10364	B1428		10573	B1822		10816
B0890		9977	B1225		10328	B1431		10556	B1822.1		10820

## CROSS REFERENCE - INTERNATIONAL vs. U.S. LIGHT NUMBER

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Inter.	—	U.S.	Inter.	—	U.S.	Inter.	—	U.S.	Inter.	—	U.S.
B1848	.....	10716	B1885	.....	10892	B2072	.....	10948	B2098	.....	11000
B1848.7	.....	10716.1	B1885.2	.....	10896	B2072.1	.....	10952	B2102	.....	11004
B1860	.....	10852	B1886	.....	10908	B2074	.....	10956	B2106	.....	11008
B1861	.....	10856	B1890	.....	10912	B2080	.....	10960	B2107	.....	11012
B1862	.....	10860	B1894	.....	10916	B2080.1	.....	10964	B2107.1	.....	11016
B1862.2	.....	10868	B1894.1	.....	10920	B2084	.....	10968	B2108	.....	11020
B1862.4	.....	10864	B1897	.....	10924	B2086	.....	10980	B2110	.....	11024
B1868	.....	10872	B1897.1	.....	10928	B2087	.....	10972	B2112	.....	11028
B1880	.....	10880	B1900	.....	10932	B2087.1	.....	10976	B2113	.....	11032
B1881	.....	10884	B1902	.....	10936	B2088	.....	10988			
B1884.4	.....	10900	B1903	.....	10940	B2089	.....	10992			
B1884.6	.....	10904	B2070	.....	10944	B2090	.....	10996			