

DEPARTMENT OF TRANSPORTATION, UNITED STATES COAST GUARD

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## LIGHT LIST

This publication contains a list of lights, fog signals, buoys, daybeacons,  
racon and radiobeacons.

## Volume IV

# GREAT LAKES

UNITED STATES AND  
CANADA

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NINTH COAST GUARD DISTRICT

**IMPORTANT**  
THIS PUBLICATION SHOULD BE  
CORRECTED EACH WEEK FROM THE  
NOTICE TO MARINERS OR LOCAL  
NOTICE TO MARINERS AS APPROPRIATE

CORRECTED TO JANUARY 17, 1978

CG-159

U.S. GOVERNMENT PRINTING OFFICE  
WASHINGTON: 1978

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 - Price \$4.25  
Stock Number 050-012-00124-3

## PREFACE

Lights and other marine aids to navigation maintained by or under authority of the United States Coast Guard on the Great Lakes and the St. Lawrence River above St. Regis are contained in this list. For the convenience of the mariners, there are also included certain lighted aids, fog signals and radio-beacons maintained by Canada.

Included are all Coast Guard aids to navigation used for general navigation. Not included are Coast Guard mooring buoys and some buoys having no lateral significance such as special purpose, anchorage, fish net and dredging.

### PRIVATE AIDS TO NAVIGATION (See also page V, IX)

Included - Class I: Aids to navigation on marine structures or other works which the owners are legally obligated to establish, maintain and operate as prescribed by the Coast Guard.

Included - Class II: Aids to navigation exclusive of Class I located in waters not ordinarily used by general navigation.

Not included - Class III: Aids to navigation exclusive of Class I located in waters not ordinarily used by general navigation.

This list, published annually, is intended to furnish more complete information concerning aids to navigation than can be conveniently shown on charts. The list is not intended to be used in navigation in the place of charts and the lake pilot and should not be used. The Charts should be consulted for the location of all aids to navigation. It may be dangerous to use aids to navigation without reference to charts.

This list is corrected to date of publication shown on the title page. Changes made in aids to navigation during the year are published in Notices to Mariners. Important changes in aids are also broadcast by the United States Coast Guard through Coast Guard radio stations and other means. The navigator should keep his light list, as well as his charts and other nautical publications, corrected from these notices and should consult all notices issued after the date of publication of the lists.

*Important: This publication should be corrected weekly from the Notice to Mariners or the Local Notice to Mariners as appropriate.*

Recommendations concerning changes or improvements in aids to navigation, or reports of aids no longer needed, should be directed to the Commander, 9th Coast Guard District, Federal Office Building, 1240 E. 9th Street, Cleveland, Ohio, 44199.

Mariners or others are requested to bring to the attention of the Commander, 9th Coast Guard District or the Commandant (GWAN-4/74), U. S. Coast Guard, Washington, D. C. 20590, any apparent errors or omissions in this Light List.

The 1978 Edition supersedes the 1977 Edition and is corrected through Local Notice to Mariners issued by the 9th Coast Guard District Commander through 17 January 1978.

The following tables are for the purpose of recording the posting of changes to the light list from Notices to Mariners.

### Local Notices to Mariners

#### YEAR 1978

1.....	26.....	51.....	76.....
2.....	27.....	52.....	77.....
3.....	28.....	53.....	78.....
4.....	29.....	54.....	79.....
5.....	30.....	55.....	80.....
6.....	31.....	56.....	81.....
7.....	32.....	57.....	82.....
8.....	33.....	58.....	83.....
9.....	34.....	59.....	84.....
10.....	35.....	60.....	85.....
11.....	36.....	61.....	86.....
12.....	37.....	62.....	87.....
13.....	38.....	63.....	88.....
14.....	39.....	64.....	89.....
15.....	40.....	65.....	90.....
16.....	41.....	66.....	91.....
17.....	42.....	67.....	92.....
18.....	43.....	68.....	93.....
19.....	44.....	69.....	94.....
20.....	45.....	70.....	95.....
21.....	46.....	71.....	96.....
22.....	47.....	72.....	97.....
23.....	48.....	73.....	98.....
24.....	49.....	74.....	99.....
25.....	50.....	75.....	100.....

**COAST GUARD DISTRICTS AND ADDRESSES OF DISTRICT COMMANDERS**

<i>NO.</i>	<i>ADDRESS</i>	<i>WATERS OF JURISDICTION</i>
FIRST .....	Analex Bldg., 150 Causeway St., Boston, Mass., 02114 DAY PHONE: 617-223-3634 NIGHT PHONE: 617-223-3644.	Maine, New Hampshire, Massachusetts, and Rhode Island to Watch Hill.
SECOND .....	Federal Bldg., 1430 Olive Street St. Louis, Mo. 63103 PHONE: 314-425-4605	Mississippi River System, except that portion of the Mississippi River south of Baton Rouge, Louisiana, and the Illinois River north of Joliet, Illinois.
THIRD .....	Governors Island; New York, N. Y. 10004 PHONE: 212-264-4800	Rhode Island from Watch Hill, Connecticut, New York, New Jersey, Pennsylvania, and Delaware, not including the Chesapeake and Delaware Canal.
FIFTH .....	Federal Bldg., 431 Crawford Street, Portsmouth, Virginia, 23705 PHONE: 804-393-9611	Maryland, Virginia, North Carolina, District of Columbia, and the Chesapeake and Delaware Canal.
SEVENTH .....	51 Southwest First Avenue, Miami, Florida, 33130. PHONE: 305-350-5621	South Carolina, Georgia, Florida to 83° 50' W., and Puerto Rico and adjacent islands of the United States.
	Commander, Greater Antilles Section, U. S. Coast Guard, San Juan, Puerto Rico PHONE: 722-2174.	Immediate jurisdiction of waters of Puerto Rico and adjacent islands of the United States.
EIGHTH .....	Hale Boggs Federal Building, 500 Camp Street, New Orleans, Louisiana, 70130 PHONE: 504-589-6234	Florida from 83° 50' W. thence westward Alabama, Mississippi, Louisiana, and Texas.
NINTH .....	Federal Office Building, 1240 E. 9th Street, Cleveland, Ohio, 44199. DAY PHONE: 216-522-3950 NIGHT PHONE: 216-522-3983	Great Lakes and St. Lawrence River above St. Regis River.
ELEVENTH	Union Bank Bldg., 400 Oceanate, Long Beach, California, 90822 PHONE: 213-590-2311	California, south of latitude 34° 58' N.
TWELFTH .....	Appraisers Bldg., 630 Sansome Street, San Francisco, California, 94126 PHONE: 415-556-2560	California, north of latitude 34° 58' N.
THIRTEENTH .....	915 Federal Bldg. Second Avenue, Seattle, Wash. 98174. PHONE: 206-442-5864	Oregon, Washington, Idaho, and Montana.
FOURTEENTH ....	300 Ala Moana, Honolulu, Hawaii, 96850. PHONE: 808-546-7130	Hawaii and the Pacific Islands belonging to the United States west of longitude 140° W. and south of latitude 42° N.
SEVENTEENTH ...	P. O. Box 3-5000 Federal Bldg., Juneau, Alaska, 99802 PHONE: 907-586-2680	Alaska.

## CONTENTS

GENERAL INFORMATION:	Page
Introduction .....	V
Glossary of Aids to Navigation Terms .....	IX, X
Racon .....	XIII
Radiobeacons .....	XV
Notice to Mariners Broadcasting Stations, etc. ....	XVIII, XIX, XX
Lozan .....	XXVI
<b>LAKES, RIVERS &amp; BAYS</b>	<b>L. L. Number</b>
St. Lawrence River .....	1
Lake Ontario .....	300
Lake Erie .....	400
Detroit River .....	850
Lake Huron .....	1217
Georgian Bay .....	1411
St. Mary's River .....	1450
Lake Superior .....	1660
Lake Michigan .....	2001
<b>CITIES AND HARBORS</b>	
Oswego, N. Y. ....	319
Green Bay .....	2450
Port Weller, Canada .....	357
Buffalo, N. Y. ....	400
Erie, Pa. ....	513
Ashabula, Ohio .....	549
Cleveland, Ohio .....	582
Sandusky, Ohio .....	629
Toledo, Ohio .....	742
Keweenaw, Mich. ....	1693
Ashland, Wis. ....	1769
Duluth, Minn. ....	1789
Port Arthur, Canada .....	1893
Ludington, Mich. ....	2068
Chicago, Ill. ....	2187
Milwaukee, Wis. ....	2350
Menominee, Mich. ....	2473, 10

## GEOGRAPHIC RANGE TABLE

## LIGHT LIST - GREAT LAKES

## INTRODUCTION GENERAL

Aids to Navigation on the Great Lakes are listed in one volume. Arrangement. Aids to Navigation are arranged in geographic order namely in a westerly and northerly direction on the Great Lakes except Lake Michigan which is in a southerly direction.

Names of aids are printed as follows:

## Lake Coast Lights.

## Radiobeacons

## Unlighted Fixed Aids and Unlighted Buoys.

## RIVER, HARBOR, AND OTHER LIGHTS.

## Lighted Buoys.

Where the name of an aid includes the immediate geographic heading under which it is listed, a dash (—) is used to indicate the geographic heading, which is part of the official name. In reporting defects or making reference to such aids in correspondence, the full name of the aid (including the geographic heading) and its listing number, if any, should be given.

International numbers assigned certain aids to navigation. Numbers shown in italics in column (1) are international numbers assigned by agreement of member nations of the International Hydrographic Organization.

Character of lights. To avoid confusion, lights are given distinct characteristics; these are indicated by abbreviations as shown on page VIII.

Period of a flashing or occulting light is the time required to go through the full set of changes.

Heights and depths are referred to low water datum on charts.

Bearings are in degrees true, reading clockwise from 000° to 359°. The azimuth of a range line is given in degrees and minutes when same has been determined with sufficient accuracy for compass error determination, otherwise it is given to the nearest degree.

Distances are in statute miles unless otherwise stated.

Latitudes and longitudes are approximate (to the nearest tenth of a minute) and are only intended to facilitate reference to a chart.

Chart references. The largest scale National Ocean Survey (Lake Survey) Chart (s) covering all the aids listed under the various geographic headings is shown in column (2) of the list for reference purposes. Where Canadian charts are concerned, the letters "Can." precede the chart numbers respectively.

Nominal Range. Nominal range is the maximum distance at which a light may be seen in clear weather (meteorological visibility of 11½ statute miles — see Luminous Range Diagram expressed in statute miles. Nominal range is listed for all Coast Guard lighted aids except range and directional lights.

Luminous Range. Luminous range is the maximum distance at which a light may be seen under the existing visibility conditions. By use of the diagram on page VII, luminous range may be determined from the known nominal range, and the existing visibility conditions.

Note. — The above ranges takes no account of elevation, observer's height of eye, or the curvature of the earth.

The table following gives the approximate geographic range of visibility for an object which may be seen by an observer whose eye is at lake level; in practice, therefore, it is necessary to add to these a distance of visibility corresponding to the height of the observer's eye above lake level.

Distances of visibility for objects of various elevations above lake level

Height			Dist.			Height			Dist.			Height			Dist.		
Ft.			M.			Miles			Ft.			M.			Miles		
5	1.5	2.9	70	21.3	11.0	250	76.2	20.8									
10	3.1	4.2	75	22.9	11.4	300	91.4	22.8									
15	4.6	5.1	80	24.4	11.8	350	106.7	24.6									
20	6.1	5.9	85	25.9	12.1	400	121.9	26.3									
25	7.6	6.6	90	27.4	12.5	450	137.2	27.9									
30	9.1	7.2	95	29.0	12.8	500	152.4	29.4									
35	10.7	7.8	100	30.5	13.2	550	167.6	31.0									
40	12.2	8.3	110	33.5	13.8	600	182.9	32.3									
45	13.7	8.8	120	36.6	14.4	650	198.1	33.6									
50	15.2	9.3	130	39.6	15.0	700	213.4	34.8									
55	16.8	9.8	140	42.7	15.6	800	243.8	37.3									
60	18.3	10.2	150	45.7	16.1	900	274.3	39.5									
65	19.8	10.6	200	61.0	18.6	1000	304.8	41.6									

Example: Determine the geographic visibility of a object, with a height above water of 75 feet, for an observer with a height of eye of 70 feet.

Enter above table:

Height of object, 75 feet 11.4 miles

Height of observer, 70 feet 11.0 miles

Computed geographic visibility 22.4 miles

Light sectors. The arcs of visibility or obscured sectors of lights are given in degrees in a clockwise direction as observed from a vessel, toward the light.

Aids to navigation privately maintained. Aids listed as "Private Aids" are privately owned and maintained and are authorized by the Commandant, United States Coast Guard for specific reasons. Although they are periodically inspected by the Coast Guard, the mariner should exercise special discretion when using them for general navigation.

Abbreviations used in the light lists are: (See also page VIII)

bl	—	blast	lt	—	light
C	—	Canadian	MKR RBN	—	marker radiobeacon
ec	—	eclipse	RBN	—	radiobeacon
ev	—	every	R	—	red
fl	—	flash	Ra ref.	—	Radar reflector
FS	—	fog signal	s	—	seconds
G	—	green	si	—	silent
gp	—	group	W	—	white
kHz	—	kilohertz	Y	—	yellow
			IB	—	Unlighted ice buoy
			LIB	—	Lighted ice buoy

Abbreviations used in the Local Notice to Mariners.

BNM	—	Broadcast Notices to Mariners
LNM	—	Local Notices to Mariners
TLB	—	Temporary lighted buoy
TLT	—	Temporary light
TRLB	—	Temporarily replaced by lighted buoy showing the same characteristic.
TRUB	—	Temporarily replaced by unlighted buoy.
TUB	—	Temporary unlighted buoy.

## DESCRIPTION OF COLUMNS

- Column (1): Contains the number of each lighted aid.  
Column (2): Name and characteristic.  
Column (3): General description of location, depths are referred to plane of reference on charts. The letter "C" indicates that the aid is maintained by Canada.  
Column (4): Nominal Range in statute miles.  
Column (5): Height of focal plane of light above mean low water in feet.  
Column (6): Description of structure, and daymark. (See page XIII-XV) Color and type of buoys. Height of top of light above ground in feet.  
Column (7): General remarks, Racon, characteristic of fog signals and emergency lights, sectors, arc of visibility and radar reflectors, year established, moved or rebuilt. Radiobeacon: The SEQUENCE within a group is indicated by a Roman Numeral. If no Roman Numeral is shown, the identifying signal is transmitted continuously.

## OTHER LIGHT LISTS PUBLISHED BY COAST GUARD

VOLUME I, ATLANTIC COAST, describing aids to navigation in the United States waters from St. Croix River, Maine to Little River, South Carolina.

VOLUME II, ATLANTIC AND GULF COAST, describing aids to navigation in the United States waters from Little River, South Carolina to Rio Grande River, Texas and the Greater Antilles.

VOLUME III, PACIFIC COAST AND PACIFIC ISLANDS, describing aids to navigation in United States waters on the Pacific Coast and on the coasts of Alaska and the Hawaiian and outlying Pacific Islands. For the convenience of mariners there are also included the lighted aids on the Coast of British Columbia, maintained by the Canadian Government.

VOLUME V, MISSISSIPPI RIVER SYSTEM, describing aids to navigation on the Mississippi and Ohio Rivers and navigable tributaries.

All Coast Guard light lists are for sale by the Superintendent of Documents, Government Printing Office, Washington, D. C. 20402, and by sales agencies as listed in the Weekly Notices to Mariners issued by the Defense Mapping Agency Hydrographic Center.

Charts and related publications for the Great Lakes covered by the Great Lakes Light List are published by the National Ocean Survey, and are available from Lake Survey Center - NOS, 630 Federal Bldg., Detroit Mich. 48226.

Charts, Coast Pilots, Tide Tables, and Tidal Current Tables of the coasts covered by Coast Guard Light Lists of the Atlantic and Pacific Coasts, are published by the National Ocean Survey, Washington Science Center, Rockville, Md. 20852 and are for sale by that agency.

Maps and related publications for the Mississippi River system covered by the Mississippi River System Light List are published by the various District Engineer offices, Corps of Engineers, United States Army, located in the area.

## REPORTING DEFECTS IN AIDS TO NAVIGATION

Experienced mariners realize that the Coast Guard cannot keep the thousands of aids to navigation comprising the federal system under simultaneous and continuous observation and that, for this reason, it is impossible to maintain every buoy, daybeacon, light, fog signal and other aid operating properly and on its charted position at all times. Therefore, the safety of the mariner and that of all persons embarked or serving in vessels will be enhanced if every person who discovers an aid to be missing, sunk, capsized, or damaged, or who observes a defect in the position or characteristic of any aid, will promptly notify the nearest Coast Guard District Office or other Coast Guard Unit of the fact.

Messages may be sent by telegraph, collect, by telephone, or by mail. Reports may be sent free by radiotelephone on 2182 kHz. to "COAST GUARD, CLEVELAND," or via commercial radio stations regular ship-to-shore radio-telephone service. A free direct wire

telephone to SAULT STE. MARIE BASE, U. S. COAST GUARD, at the reporting window in the Lock Office at the Soo is available for reporting defects in aids and other information of vital interest to the Coast Guard. To insure correct identification use official designation of aids as given in this list. Such cooperation will materially assist in the prompt remedying of defects and in the effective maintenance of the Coast Guard aids to navigation.

Aids to navigation in the United States waters of the Great Lakes and connecting waters are under the jurisdiction of the 9th Coast Guard District. Address: Commander, 9th Coast Guard District, 1240 E. 9th Street, Cleveland, Ohio. 44199, day phone, Code 216, 522-3991. Nights, weekends, and Holidays Code 216-522-3983

### GROUP OFFICES:

- Buffalo, New York, 1 Fuhrman Blvd., day and night phone, 716-842-2191.  
Detroit, Michigan, Foot of Mt. Elliott Street, day and night phone, 313-226-6870.  
Sault Ste. Marie, Michigan 337 park Place, day and night phone, 906-635-5241, also U. S. Coast Guard phone at reporting window in Lock Office.  
Duluth, Minnesota, 1201 Minnesota Avenue, day phone, 218-727-6692, night 218-727-4860.  
Muskegon, Michigan, Fulton Avenue and Bluff Street, day and night phone, 616-759-0357.  
Milwaukee, Wisconsin, 2420 South Lincoln Memorial Drive, day and night phone, 414-224-3165.

Suggestions for improvement in the system of aids should be submitted by mail to the Commandant (G-WAN), U.S. Coast Guard Headquarters, Washington, D. C. 20590.

Some of the deficiencies, derangements, and phenomena that occasionally occur and which are potential sources of danger to the mariner, and certain situations and conditions which require particular caution on his part, are discussed in the following paragraphs.

## NOTICES TO MARINERS

**Purpose.** By means of Notices to Mariners, the Coast Guard disseminates information concerning establishments, changes and discontinuances of aids to navigation on the Great Lakes. Reports of channel conditions, obstructions, menaces to navigation, danger areas, etc., are also included in Notices to Mariners. These notices are essential to all navigators for the purpose of keeping light list and other marine aids, nautical charts, Great Lakes Pilot and other nautical publications corrected up to date.

**Local Notices to Mariners (LNM)** are issued by the Commander, Ninth Coast Guard District, Cleveland, Ohio, and include day to day changes and deficiencies in aids to navigation on the Great Lakes. These notices may be obtained, free of charge, by making application to the Commander, Ninth Coast Guard District, Federal Building, 1240 E. 9th Street, Cleveland, Ohio 44199 indicating specifically the nature of your need.

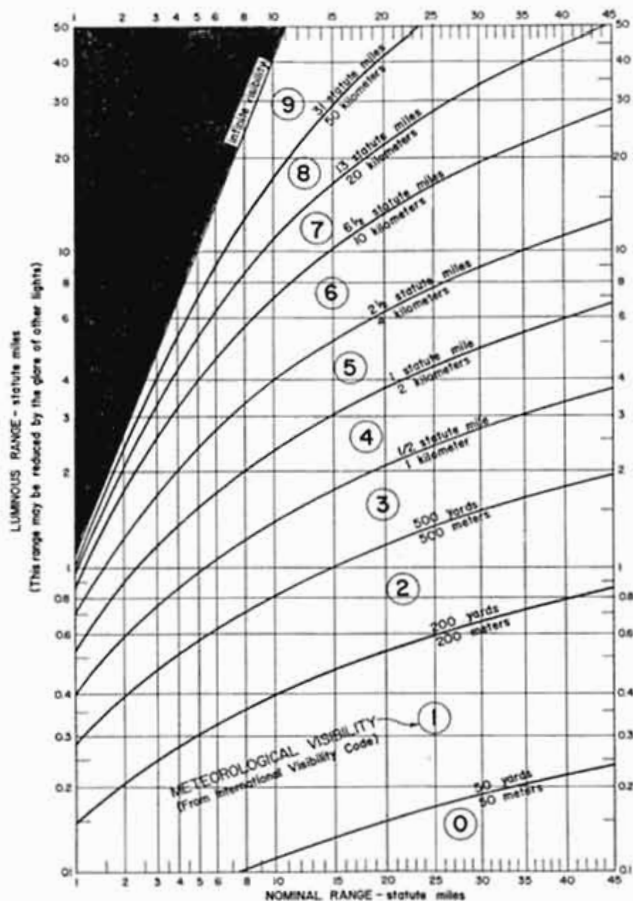
The navigator should keep his Light List, as well as his charts, corrected from these Notices, and should consult all Notices issued after the date of publication of the list.

**Marine broadcast Notices to Mariners** are made by the Coast Guard through Coast Guard, and some commercial radio stations to report deficiencies and changes in aids to navigation of importance. Commercial radio stations broadcasting marine information are listed on page XXIII

**Charts, etc., of the waters covered by this list are published as follows:** Charts and Bulletins to supplement the information given upon the charts, by the National Ocean Survey; charts of the Canadian portion of the Great Lakes by the Canadian Hydrographic Service, Marine Sciences Directorate, Department of the Environment, Ottawa, Ontario, Canada. It may be dangerous to use aids to navigation without reference to charts.

**Time of extinguishing lights in the winter and relighting them in the spring.** — All lights of the United States on the northern lakes and rivers and adjacent navigable waters will be exhibited from sunset to sunrise at all seasons when vessels can enter the ports or

## LUMINOUS RANGE DIAGRAM



**Luminous Range Diagram.** - The diagram above enables the mariner to determine the approximate range at which a light may be sighted, at night, in the meteorological visibility prevailing at the time of observation. The diagram is entered using the nominal range listed in column 4 of this book. The figures along the curves represent the estimated meteorological visibility at the time of observation (the International Visibility Code is defined using the metric units), and those along the side borders the luminous range under those conditions.

**Example:** A light having a nominal range of 15 statute miles. When the meteorological visibility is 13 statute miles the light would be sighted at about 17 statute miles, given a sufficient elevation and height of eye, and when the visibility is 6 miles it would be sighted at about 3 miles.

The diagram can also be used to obtain an approximate visibility. For example, when a light with a nominal range of 15 statute miles is first sighted at 5 miles the meteorological visibility will be about 2 1/2 miles.

**CAUTION.** - When using this diagram it must be remembered that:

1. The ranges obtained are approximate.
2. The transparency of the atmosphere may vary between the observer and the light.
3. Glare from background lighting will reduce considerably the range at which lights are sighted.

**Note.** - The geographic range always limits the range at which lights are sighted, due to elevation and height of eye. (Refer Geographic Range Table, page V.)

## CHARACTERISTIC LIGHT RHYTHMS

Illustration	Symbols and meaning		Rhythms description
	Lights which do not change color	Lights which show color variations	
	F. = Fixed...	Alt. = Alternating.	A continuous steady light.
	F.Fl. = Fixed and flashing	Alt. F.Fl. = Alternating fixed and flashing.	A fixed light varied at regular intervals by a flash of greater brilliance.
	F.Gp.Fl. = Fixed and group flashing.	Alt. F.Gp.Fl. = Alternating fixed and group flashing.	A fixed light varied at regular intervals by groups of 2 or more flashes of greater brilliance.
	Fl. = Flashing	Alt.Fl. = Alternating flashing.	Showing a single flash at regular intervals, the duration of light always being less than the duration of darkness.
SHOWS NOT MORE THAN 30 FLASHES PER MINUTE			
	Gp. Fl. = Group flashing.	Alt.Gp.Fl. = Alternating group flashing.	Showing at regular intervals groups of 2 or more flashes
	Gp.Fl.(1+2) = Composite group flashing.	.....	Light flashes are combined in alternate groups of different numbers.
	Mo.(A) = Morse Code.	.....	Light in which flashes of different duration are grouped in such a manner as to produce a Morse character or characters.
	Qk. Fl. = Quick Flashing.	.....	Shows not less than 60 flashes per minute.
	I.Qk. Fl. = Interrupted quick flashing.	.....	Shows quick flashes for about 5 seconds, followed by a dark period of about 5 seconds.
	E.Int. = Equal interval. (Isobase)	.....	Light with all durations of light and darkness equal.
	Occ. = Occulting.	Alt.Occ. = Alternating occulting.	A light totally eclipsed at regular intervals, the duration of light always greater than the duration of darkness
	Gp. Occ. = Group Occulting.	.....	A light with a group of 2 or more eclipses at regular intervals
	Gp.Occ.(2+3) = Composite group occulting.	.....	A light in which the occultations are combined in alternate groups of different numbers.

Light colors used and abbreviations: W=white, R=red, G=green

are navigating in their vicinity. The dates of discontinuing and relighting lights will vary with the seasons, but care will be taken to exhibit lights whenever of use to navigators. Some of the lights are maintained throughout the year, this information is found in Column (7). A lower intensity light displayed in place of a regular light during the normal closed season is known as a "Winter Light". Winter Light information is found in column 7. Lighted buoys are placed on their stations as early as practicable in the spring and most are replaced by unlighted buoys in the fall when endangered by ice conditions.

Temporary deficiencies in aids to navigation are published in the Local Notices to Mariners.

**Change of address.** Persons receiving Notices to Mariners are requested to notify the appropriate agency of any change in address, or when Notices to Mariners are no longer required. Both new and old addresses should be given in case of change of address.

**Obtaining single copies of Notices to Mariners.** Single copies of Notices to Mariners may be obtained or consulted at the office of the District Commander, the National Ocean Survey Offices, or other agencies distributing marine information.

**Canadian lights and fog signals** are under the charge of the Department of Transport, Ottawa, Canada. Any failure in Canadian aids should be immediately reported by letter to the Chief, Marine Aids, Department of Transport, Ottawa, Ontario, K1A0N7, Canada. Such letters may be mailed post free in Canada.

#### EXCERPTS FROM REGULATIONS PERTAINING TO AIDS TO NAVIGATION MAINTAINED BY OR UNDER AUTHORITY OF THE UNITED STATES COAST GUARD (REFERENCE: 33 CFR, SUBCHAPTER C.)

**Marking of wrecks.** When a vessel, raft, or other craft is wrecked and sunk, accidentally or otherwise, in the navigable waters of the United States, the owner thereof has a nondelegable statutory duty to mark immediately such sunken wreck with a buoy or daymark during the day and a lighted lantern at night, and to maintain these required markings until the sunken craft is removed or abandoned, or abandonment is otherwise determined by the Corps of Engineers. Such markings shall conform to the lateral system of buoyage characteristics. *Provided* That until the owner has the opportunity to establish such standard markings he shall maintain the most suitable markings available under the circumstances which will warn the navigator of the sunken wreck.

The owner, agent, master or person in charge of such vessel shall notify the nearest United States Coast Guard Marine Inspection Office of the casualty as soon as possible, and in addition, shall advise of the action he is taking to establish proper markings, giving the following information: (a) Name and description of sunken wreck; (b) Accurate location of wreck; (c) Depth of water over wreck; (d) Location and type of marking established, including color and shape of daymark or buoy, and color and characteristic of light.

**Private aids to navigation.** No person, public body, or instrumentality not under the control of the Commandant, exclusive of the Armed Forces, shall establish, erect, or maintain in the navigable waters of the United States any aid to maritime navigation, without first obtaining permission to do so from the Commandant, nor shall any person, public body, or instrumentality change, move, or discontinue any private aid to navigation so authorized without first obtaining permission to do so from the Commandant.

**Lighting of bridges.** All persons owning, occupying, or operating bridges over the navigable waters of the United States shall maintain at their own expense such lights and other signals required for the safety of marine navigation as may be prescribed by the Commandant, U. S. Coast Guard and, on any international bridge constructed after March 23, 1906, such additional signals as may be prescribed by the Commandant, U. S. Coast Guard.

**Marking of structures.** Any structure, including mooring plants or buoys, in or over the navigable waters of the United States shall display the lights and other signals for the protection of maritime navigation as may be prescribed by the Commandant of the Coast Guard. Any owner, or operator, of a structure excluding an agency of the United States, who violates any of the rules and regulations prescribed hereunder, commits a misdemeanor and shall be punished,

upon conviction thereof, by a fine of not exceeding \$100 for each day during which such violation continues. The prescribed lights and signals shall be installed, maintained, and operated by and at the expense of the owner, or operator, who shall after obtaining a Corps of Engineers permit authorizing construction of the structure, apply to the District Commander having jurisdiction over the waters in which the work will be executed for determination of the lights and other signal to be displayed. Regulations describing the lights or other signals required to mark any work or obstruction, may or may not be published. If no regulation exists, each case shall be considered individually by the District Commander who will prescribe such lights and signals as he may consider necessary for the safety of navigation. The characteristics of lights and signals shall comply as nearly as possible to the United States lateral system of buoyage.

**Interference with aids to navigation.** No person, excluding the Armed Forces, shall obstruct or interfere with any aid to navigation established and maintained by or under the authority of the Coast Guard.

**Collision with or damage to aids to navigation.** No person shall take possession of or make use of for any purpose, or build upon, alter, deface, destroy, move, injure, obstruct by fastening vessels thereto or otherwise, or in any manner whatever impair the usefulness of any aid to navigation established and maintained by the United States.

Whenever any vessel collides with an aid to navigation established and maintained by the United States or any private aid to navigation or is connected with any such collision, it shall be the duty of the person in charge of such vessel to report the accident to the nearest Officer in Charge, Marine Inspection, United States Coast Guard.

#### GLOSSARY OF AIDS TO NAVIGATION TERMS

The glossary consists of definitions of works and phrases used in Light Lists and Local Notices to Mariners.

**Adrift:** Afloat or unattached to shore or bottom.

**Aids to Navigation:** Any signal device external to a vessel or aircraft specifically intended to assist a navigator to determine his position or safe course, or to warn him of dangers or obstructions to navigation.

**Arc Of Visibility:** The portion of the horizon over which a lighted aid to navigation is visible.

**Beacon:** A fixed, lighted or unlighted, artificial navigation mark. i. e. lights and daybeacons both constitute "beacons".

**Bearing:** The horizontal direction of a line of sight between two objects on the surface of the earth.

**Bifurcation:** A division of a channel into two branches; a fork.

**Broadcast notice to mariners:** Designed to provide important marine information via radio broadcasts.

**Charge:** Placement of batteries in an unmanned aid.

**Characteristic:** The color and period of a light used for identifying the aid; the identifying signal transmitted by radio beacon; the identifying signal produced by a sound signal.

**Closed:** Temporary discontinuance of a manned aid for the winter season.

**Commissioned:** An aid previously reported closed or withdrawn which has been placed in operation.

**Daybeacon:** An unlighted fixed structure which is equipped with a standard daymark for daytime identification.

**Daymark:** The daytime identifier of an aid to navigation presenting one of several standard shapes (i. e. square, triangle, rectangle) and colors.

**Direction light:** A light illuminating a sector of very narrow angle and intended to mark a direction to be followed.

**Discontinued:** Removal from operation (permanent or temporary) of a previously authorized aid.

**Discrepancy:** Failure of an aid to maintain its position or function exactly as prescribed in the Light List.

**Discrepancy buoy:** Easily transportable buoy used to temporarily replace an aid, temporarily discontinued, off station, missing, severely damaged or destroyed aid or an aid that is not watching properly.

**Eclipse:** A portion of the characteristic of a flashing light during which the light is not exhibited.

**Establish:** To place an authorized aid in operation for the first time.

**Extinguished:** Failure of a lighted aid to show a light signal.

**Floating aid:** A buoy, secured in its charted position by a mooring.

**Fog Detector:** A device used to automatically determine conditions of visibility which warrant the turning on or off of a sound signal.

**Inoperative:** Sound signal or radionavigation aid out of service due to a malfunction.

**Junction:** A place of joining of two channels, as that of tributary with a main river.

**Large Navigation Buoy (LNB):** A 40 foot diameter, automated discus buoy used to replace light vessels.

**Lateral System:** A system of aids to navigation in which buoys, daybeacons and minor lights are assigned colors and numbers in geographical sequence and in accordance with their respective location in relation to safe water.

**Leading Light:** A light so located that vessels may steer directly for it until close aboard, when a new course is taken.

**Light:** The signal emitted by a lighted aid to navigation; a piece of illuminating apparatus; a lighted aid to navigation on a fixed structure.

**Light Sector:** The arc over which a light is visible.

**Local Notice to Mariners:** A locally disseminated issue of Notice to Mariners affecting a specific area.

**Major Light:** A light of high candlepower and reliability exhibited from a fixed structure ashore or on a marine site (except range lights). Major lights are usually located at manned or monitored automated stations.

**Mileage Number:** A number assigned to aids gives the distance in sailing miles along the river from a reference point to the aid. Principally used in the Mississippi River system.

**Minor Light:** An automatic unwatched light on a fixed structure showing usually moderate to low candlepower.

**Missing:** A floating aid which is not on station with its whereabouts unknown.

**Off Shore Tower:** Manned light stations built on exposed marine sites to replace light vessels.

**Off Station:** A floating aid not on its charted station.

**Passing Light:** A term applied to a low candlepower light mounted on a light structure. Used where a mariner passes out of the main light beam (such as a range light) but still needs to keep the structure in sight during transit.

**Primary Aids:** Loran stations, manned light stations, manned sound signal stations, manned radiobeacon stations, and light vessels; or remotely monitored lights, sound signals, large navigational buoys, radiobeacons or other aids which mark landfalls, areas, and/or obstructions, continuously that are highly dangerous to all mariners; critical channel junctions, centerlines or boundaries.

**Racon (Radar Responder Beacon):** A radionavigation system transmitting response to a predetermined received radar signal, a pulsed radar return signal with specific characteristics which provides bearing and distance data.

**Radar Reflector:** A physical arrangement of such material and design as to reflect to an ordinary radar most of the energy that strikes its surface.

**Radar:** A radio location system where transmission and reception are carried out at the same location, and which utilize the reflecting or retransmitting properties of objects in order to determine their positions.

**Radiobeacon:** Electronic apparatus which transmits a radio signal for use in locating a mariner's position.

**Rebuilt:** A fixed aid, previously destroyed, which has been restored as an aid to navigation.

**Relighted:** An extinguished aid return to advertised light characteristics.

**Relocated:** Authorized movement of an aid from one position to another in the immediate vicinity.

**Relieved:** Removing a buoy from a station while providing another buoy having the operating characteristics authorized for that station.

**Replaced:** An aid previously OFF STATION, ADRIFT or MISSING restored by another aid of the same type and characteristics.

**Replaced (Temporarily):** An aid previously OFF STATION, ADRIFT, or MISSING restored by another aid of different type and/or characteristic.

**Reset:** A floating aid previously OFF STATION, ADRIFT, or MISSING returned to its station.

**Sea Lane (TSS):** Shipping corridors marked by buoys which separate incoming from outgoing vessels. Properly called TRAFFIC SEPARATION SCHEMES.

**Secondary Light:** A major light of less strategic importance and usually less intensity than a primary seacoast light; usually located in bays and at entrances to harbors.

**Setting A Buoy:** The act of placing a buoy on station in the water.

**Skeleton Tower:** A tower, usually of steel, constructed of heavy corner members and various horizontal and diagonal bracing members.

**Special Purpose Buoy:** A buoy used to indicate a special meaning to the mariner and having no lateral significance.

**Station:** The authorized location of an aid.

**Station Buoy:** An unlighted buoy set near a lightship or an important buoy as a reference point should the primary aid be dragged off station.

**Traffic Separation Scheme:** Shipping corridors marked by buoys which separate incoming from outgoing vessels. Improperly called SEA LANES.

**Watching Properly:** An aid on charted position exhibiting its advertised characteristics in all respects.

**Winter Marker:** An unlighted buoy or small lighted buoy, without sound signal, which is established as a replacement during the winter months when other aids are closed or withdrawn.

**Winter Light:** A light which is maintained during those winter months when the regular light is extinguished. It is of lower candlepower than the regular light but usually of the same color and flash characteristic.

**Withdrawn:** Discontinuance of a floating aid during severe ice conditions or for the winter season.

## LIGHTS ON FIXED STRUCTURES

**General.** Lights on fixed structures are aids to navigation placed on shore or on marine sites to assist a navigator to determine his position or safe course, to mark channels and to warn him of dangers or obstructions to navigation. They are identified by their light color and flashing characteristics at night, and by the shape and color of their daymark during daytime. Vessels must keep well clear of fixed aids if there is sufficient channel to do so because there may be dangerous underwater obstructions present in the vicinity of the foundation of the aid.

**Lights.** Unless otherwise stated in the Light List will be displayed from sunset to sunrise. Occasionally, however, they may be displayed for a short period before sunset and after sunrise in some locations due to prolonged twilight or low visibility.

The lighting apparatus used on fixed structures is serviced at periodic intervals to assure reliable operation.

**Daylight controls.** Most lighted aids to navigation are automatically extinguished during daylight hours by switches activated by daylight. These switches are not of equal sensitivity, therefore all lights do not come on or go off at the same time. (Mariners should ensure correct identification of aids during twilight periods when some lighted aids to navigation are on while others are not.)

**Minor lights and daybeacons.** Minor lights and daybeacons used to mark the sides of channels are given numbers and characteristics in accordance with the lateral system of buoyage.

**Caution.** The condition of the atmosphere has a considerable effect upon the distance at which lights can be seen. Sometimes lights are obscured by fog, haze, dust, smoke, or precipitation which may be present at the light, or between it and the observer, but not at the observer, which is and possibly unknown to him. On the other hand, refraction may often cause a light to be seen farther than under ordinary circumstances. A light of low intensity will be easily obscured by unfavorable conditions of the atmosphere and little dependence can be placed on its being seen. For this reason, the intensity of a light should always be considered when expecting to sight it in thick weather. Haze and distance may reduce the apparent duration of

the flash of a flashing light. In some conditions of the atmosphere white lights may have a reddish hue. Colored lights are more quickly lost to sight under weather conditions which tend to reduce visibility than are white lights.

It should be remembered that lights placed at great elevations are more frequently obscured by clouds, mist, and fog than those near lake level.

In regions where ice conditions prevail in the winter, the lantern panes of unattended lights may become covered with ice or snow, which will greatly reduce the visibility of the lights and may also cause colored lights to appear white.

The increasing use of brilliant shore lights for advertising, illuminating bridges, and other purposes, may cause marine navigational lights, particularly those in densely inhabited areas, to be outshone and difficult to distinguish from the background lighting. Mariners are requested to report such cases as outlined above in order that steps may be taken to improve the conditions.

The "loom" of a powerful light is often seen beyond the limit of visibility of the actual rays of the light. The loom may sometimes appear sufficiently sharp to obtain a bearing.

At short distances, some flashing lights may show a faint continuous light between flashes.

It should be borne in mind that, when attempting to sight a light at night, the range of vision is considerably increased from aloft. By noting a star immediately over the light an accurate compass bearing may be indirectly obtained on the light from the navigating bridge although the light is not yet visible from that level.

The distance of an observer from a light cannot be estimated by its apparent intensity. Always check the characteristics of lights in order that powerful lights visible in the distance shall not be mistaken for nearby lights showing similar characteristics at low intensity (such as those on lighted buoys).

If lights are not sighted within a reasonable time after prediction, a dangerous situation may exist requiring prompt resolution or action to insure the safety of the vessel.

The apparent characteristic of a complex light may change with the distance of the observer. For example, a light which actually displays a characteristic of fixed white varied by flashes of alternating white and red (the phases having a decreasing range of visibility in the order: flashing white, flashing red, fixed white) may, when first sighted in clear weather, show as a simple flashing white light. As the vessel draws nearer, the red flash will become visible and the characteristic will apparently be alternating flashing white and red. Later, the fixed white light will be seen between the flashes and the true characteristic of the light finally recognized — fixed white, alternating flashing white and red (F. W. Alt. Fl. W. and R.).

There is always the possibility of a light being extinguished. In the case of unattended lights, this condition might not be immediately detected and corrected. The mariner should immediately report this condition.

**Emergency lights.** Emergency lights of reduced intensity are displayed from many major light stations when the main and stand-by lights are extinguished; these emergency lights may or may not have the same characteristic as the main light. The characteristic of the emergency lights are listed in column (7) of this publication if characteristic is different from main light.

If a vessel has considerable vertical motion due to pitching in a heavy sea, a light sighted on the horizon may alternately appear and disappear. This may lead the unwary to assign a false characteristic and hence to err in its identification. The true characteristic will be evident after the distance has sufficiently decreased or it can be determined by increasing the height of eye of the observer.

Sectors of colored glass are placed in the lanterns of some lights to produce a system of light sectors of different colors. In general, red sectors are used to mark shoals or to warn the mariner of other obstructions to navigation or of nearby land. Such lights provide approximate bearing information since an observer may note the change of color as he crosses the boundary between sectors. These boundaries are indicated in the Light Lists and by broken lines on the charts. These bearings, as all bearings referring to lights, are given as true in degrees from 000° to 359° as observed from a vessel

toward the light. Altering course on the changing sectors of a light or using the boundaries between light sectors to determine the bearing for any purpose is not recommended. Be guided instead by the correct compass bearing of the light and do not rely on being able to accurately observe the point at which the color changes. This is often difficult to decide because the edges of a colored sector cannot be cut off sharply. On either side of the line of demarcation between white and red sectors, and also between white and green, there is always a small arc of uncertain color. Moreover, when haze or smoke are present in the intervening atmosphere, a white sector might have a reddish hue.

The area in which a light can be observed is normally a circle with the light as the center and the range of visibility as the radius. However, on some bearings the range may be reduced by obstructions. In such cases, the obstructed arc might differ with height of eye and distance. When a light is cut off by adjoining land and the arc of visibility is given, the bearing on which the light disappears may vary with the distance of the vessel from which observed and with the height of eye. When the light is cut off by a sloping hill or point of land, the light may be seen over a wider arc by a ship far off than by one close to.

Circles drawn on charts around a light are not intended to give information as to the distance at which it can be seen, but solely to indicate, in the case of lights which do not show equally in all directions, the bearings between which the variation of visibility or obscuration of the light occurs. Lights of equal candlepower but of different colors may be seen at different distances. This fact should be considered not only in predicting the distance at which a light can be seen, but also in identifying it.

At many lights rip-rap mounds are maintained to protect the structures against ice damage and scouring action. There have been collisions with the uncharted, submerged portions of such rip-rap by vessels attempting to pass the lights extremely close aboard.

## DAY BEACONS

Daybeacons are unlighted fixed aids to navigation placed on shore or on marine sites. They are identified by their color and the shape of the daymark. Reflectors are placed on certain daybeacons to assist the navigator, using a searchlight, to more readily locate them at night. The colors of reflectors have the same significance as the colors of the aids.

## BUOYS

**General.** The waters of the United States are marked for safe navigation by the lateral system of buoyage. (See illustration in back of book.) This system employs a simple arrangement of colors, shapes, numbers, and light characteristics to show the side on which a buoy should be passed when proceeding in a given direction. The characteristics are determined by the position of the buoy with respect to the navigable channels as the channels are entered from seaward toward the head of navigation.

As all channels do not lead from seaward, arbitrary assumptions must at times be made in order that the system may be consistently applied. The characteristics of buoys are based on the assumption that proceeding in a southerly direction along the Atlantic Coast, in a northerly and westerly direction along the Gulf Coast, in a northerly direction on the Pacific Coast in a westerly and northerly direction on the Great Lakes (except Lake Michigan), and in a southerly direction on Lake Michigan, is proceeding from seaward.

On the Intracoastal Waterway proceeding in a general southerly direction along the Atlantic coast, and in a general westerly direction along the Gulf coast, is considered as proceeding from seaward. On the Mississippi and Ohio Rivers and their tributaries the aids to navigation characteristics are determined as proceeding from sea towards the head of navigation although local terminology describes "left bank" and "right bank" as proceeding with the flow of the river.

**Colors.** When proceeding from seaward:

(a) Black buoys mark the port (left) sides of channels, or the location of wrecks or obstructions which must be passed by keeping

the buoy on the port (left) hand.

(b) Red buoys mark the starboard (right) sides of channels, or the location of wrecks or obstructions which must be passed by keeping the buoy on the starboard (right) hand.

(c) Red and black horizontally banded buoys mark junctions or bifurcations in the channel, or wrecks or obstructions which may be passed on either side. If the topmost band is black, the preferred channel will be followed by keeping the buoy on the port (left) hand. If the topmost band is red, the preferred channel will be followed by keeping the buoy on the starboard (right) hand. The first color listed in column 6 is the color of the top band. When proceeding toward seaward, it may not be possible to pass on either side of these buoys, and the chart should always be consulted.

(d) Black and white vertically striped buoys mark the fairway or midchannel.

**Shapes.** In order to provide ready identification certain unlighted buoys are differentiated by shape.

(a) Red buoys, or red and black horizontally banded buoys with the topmost band red are conical shaped and called nun buoys.

(b) Black buoys, or black and red horizontally banded buoys with the topmost band black are cylindrical shaped and called can buoys.

(c) Black and white vertically striped buoys may be either nun or can buoys. The shape has no significance in this case. Lighted buoys, sound buoys, and spar buoys are not differentiated by shape to indicate the side on which they should be passed. No special significance is attached to the shapes of these buoys, their purpose being indicated only by the coloring, numbering, or light characteristics.

**Numbers.** (a) All solid red and solid black buoys are numbered, the red buoys bearing even numbers and the black buoys bearing odd numbers, the numbers for each increasing from seaward. The numbers are kept in approximate sequence on both sides of a channel by omitting numbers where required.

(b) No other color buoys are numbered; however, any color buoy may be lettered for the purpose of identification.

**Light color.** Red lights on buoys are used only on red buoys or red and black horizontally banded buoys with the topmost band red. Green lights on buoys are used only on the black buoys or black and red horizontally banded buoys with the topmost band black. White lights may be used on any color buoy. No special significance is attached to a white light on a buoy, the purpose of the buoy being indicated by its color, number, or its light phase characteristic.

**Light rhythms.** (a) Lights on red buoys if not fixed, will always be regularly flashing, regularly occulting, or group flashing. Lights on black buoys, if not fixed will always be regularly flashing or regularly occulting. For ordinary purposes the frequency of flashes will be not more than 30 per minute (slow flashing). For purposes when it is desired that lights have a distinct cautionary significance, as at sharp turns or sudden constrictions in the channel, or to mark wrecks or dangerous obstructions, the frequency of flashes will be not less than 60 per minute (quick flashing).

(b) Lights on red and black horizontally banded buoys will always show a series of quick flashes interrupted by eclipses about six times per minute (interrupted quick flashing).

(c) Lights on black and white vertically striped buoys will always show a white Morse Code "A" (Short-Long) flash, this combination recurring at the rate of about eight times per minute.

**Daylight controls.** Most lighted buoys are equipped with a special device which automatically controls the electric current to the light. This device causes the light to operate during hours of darkness and to be extinguished during daylight hours. These devices are not of equal sensitivity, therefore all lights do not come on or go off at the same time. (Mariners should ensure correct identification of aids during twilight periods when some lighted aids to navigation are on while others are not.)

**Reflective material** is placed on certain buoys to assist in their detection at night by use of a searchlight. Green reflective material is placed only on black buoys, red reflective material is placed only on red buoys. However red and green reflective material will be

placed on red and black horizontally banded junction buoys; red if topmost band is red and green if topmost band is black. The use of white reflective material on red and black buoys having white lights is being phased-out. When this process is complete, white reflective material on buoys with lateral significance will be limited to use on mid-channel (fairway) buoys. In addition, the following buoys (which have no lateral significance) may display white reflective material; special purpose, dredging, mooring, fish net, and anchorage buoys. Two other reflective colors are used on buoys; warning buoys display orange reflective horizontal bands and warning symbol, and intercoastal waterway black and red buoys display a yellow reflective horizontal band.

**Special purpose buoys.** (a) Buoys for special purpose which have no lateral significance are colored as follows. White buoys mark anchorage areas. White buoys with green tops are used in connection with dredging and survey operations. White and black alternate horizontally banded buoys mark fish net areas. White and international orange buoys alternately banded, either horizontally or vertically, are for special purposes to which neither the lateral system colors nor the other special purpose colors apply.

(b) The shape of special purpose buoys has no significance. They are not numbered, but may be lettered. They may display any color light except red or green. Only fixed, occulting, or slow flashes are used.

**Buoys marking wrecks.** Buoys established by the Coast Guard to mark wrecks are generally placed on the seaward or channel side of the wreck and as near to the wreck as conditions will permit.

**Station buoys.** Buoys are sometimes placed in close proximity to a floating aid to mark the station in case the regular aid is accidentally shifted from station. Station buoys are colored and numbered the same as the regular aid to navigation.

**Seasonal buoys.** The dates shown in the lists for seasonal buoys and other aids are approximate and may vary due to adverse weather or other conditions.

**Caution.** All mariners are cautioned not to rely solely on buoys for navigational purposes because of their potential unreliability. Individual buoys have varying degrees of reliability because of the factors described below.

(a) On government charts, the approximate position of a buoy and its sinker is represented by the dot or circle associated with the buoy symbol. The dot or circle represents the approximate position 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 body and sinker positions are not under continuous surveillance but are normally verified 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, capized, sunk, etc. Lighted buoys may be extinguished or sound signals may not function as the result of ice, running ice, or other natural causes, collisions, or other accidents.

(b) So as not to endanger the safety of his vessel, a mariner is cautioned that he must not rely completely upon the position or operation of buoys to determine the position of his vessel. A prudent mariner also utilizes bearings or angles from fixed aids to navigation and objects on shore, when available, as well as other sources of navigational information such as soundings, RDF, etc. Also, a vessel attempting to pass close aboard risks collision with a yawing buoy or with the obstruction the buoy marks. (33CFR 62.25-55).

**Racing course buoys.** All privately maintained racing course buoys are not listed in this publication. Information concerning these buoys may be obtained from the U.S. Coast Guard District Office.

## FOG SIGNAL

**General.** The function of a fog signal in the system of aids to navigation is to warn of danger, and to provide the mariner with a

practical means of determining his position with relation to the fog signal at such times as the station or any visual signal which it displays is obscured from view by fog, snow, rain, smoke, or thick weather. Among the devices in common use as fog signals are:

**Diaphragms** 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.

**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, by a descending weight, compressed gas, or electricity.

**Gongs** which produce sounds of varying tones activated by motion.

**Identification.** Fog signals are distinguished by their characteristics as specified for each aid. The signal characteristic is the phase relationship of the recurring sound emissions. Fog signals on fixed stations, large navigational buoys, and lightships produce a specific number of blasts and silent periods each minute, when operating, to provide positive identification. Fog signals on buoys are generally actuated by the motion of the sea and, therefore do not emit regular signal characteristics, and when the sea is calm, may emit no sound signals.

**Period of operation.** (a) Fog signals at stations when a continuous watch is maintained are sounded during periods of reduced visibility.

(b) Fog signals at locations where no personnel are in attendance may be in continuous operation or may be controlled by electronic fog sensing device. Due to the nature of the fog sensing device, there may be a delay in automatic turning on and off. Additionally these fog sensing devices may not be capable of detecting patchy fog conditions.

(c) Where fog signals are operated continuously on a seasonal basis or throughout the year, it is so stated in column 7 of the light list.

(d) Fog signals on buoys are generally operated by the motion of the sea.

**Caution.** 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 clearly established that:

(a) 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.

(b) Under certain atmospheric conditions of atmosphere, when a fog signal has a combination high and low tone, 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 signal may not be heard.

(c) 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 obstruction, or on a high cliff.

(d) Fog may exist a short distance from a station and be observable from it, so the signal may not be in operation.

(e) Some fog signals cannot be started at a moment's notice.

(f) 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.

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

All these considerations point to the necessity for the utmost caution when navigating near land in a fog. Mariners are therefore warned that fog signals can never be implicitly relied upon, and that the practice of taking soundings of the depth of water should never be neglected. Particular attention should be given to placing look-outs 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.

**Emergency fog signals.** Emergency fog signals are sounded at some of the light and fog signal stations when the main and stand-by fog signal is inoperative. Some of these emergency fog signals are of a different type and characteristic than the main fog signal. The characteristics of the emergency fog signals are listed in column (7) of this publication.

The mariner must not assume:

(a) That he is out of ordinary hearing distance because he fails to hear the fog signal.

(b) That, because he hears a fog signal faintly, he is at a great distance from it.

(c) That he is near to it because he hears the sound plainly.

(d) That the distance from and the intensity of the sound on any one occasion is a guide to him for any future occasion.

(e) That the fog signal is not sounding because he does not hear it, even when in close proximity.

### RADAR REFLECTORS

Certain aids to navigation may be fitted with or have incorporated in their design, special fixtures (Radar reflectors) designed to enhance their ability to reflect radar energy. In general, these fixtures will materially improve the aids for use by vessels equipped with radar.

### RACONS

A radar beacon which, when triggered by a ship's radar signal, transmits a reply which provides the range and bearing to the beacon on the PPI display of the ship. The reply may be coded for identification purposes; in which case, it will consist of a series of dots and dashes (se; short and / or long intensifications of radar beam beginning at and extending beyond the racon on a radial line drawn from the radar through the target) on the PPI. The range is the measurement on the PPI to the first dot or dash nearest its center. If the reply is not coded, the racon signal will appear as a radial line extending from just beyond the reflected echo of the racon installation or from just beyond the point where the echo would be painted if detected.

RACON characteristic can be found in column 7.

### STANDARD DESIGNATION AND DESCRIPTION OF DAYMARKS

In order to describe the appearance and purpose of each daymark type in the Lateral System a standard designation has been formulated. A brief explanation of the designations and of the purpose of each type of daymark in the system is given below, followed by a word description of the appearance of each daymark type.

Designations:

1. First letter - Shape or purpose

S - Square (used to mark the port (left) sides of channels when proceeding from seaward).

T - Triangle (used to mark the starboard (right) sides of channels when proceeding from seaward).

J - Junction (square or triangle, used to mark junctions or bifurcations in the channel, or wrecks or obstructions which may be passed on either side; shape of daymark color of top band have lateral significance for the preferred channel).

M - Mid-channel (octagon-shaped, used to mark the fairway or middle of the channel).

C - Crossing (Western Rivers only; diamond shaped, used to indicate the points at which the channel crosses the river).

K - Range (rectangular-shaped; when both the front and rear range daymarks are aligned on the same bearing the observer

is on the axis of the range. Usually used to mark the center of the channel.

N—No lateral significance (diamond or rectangular shape; used for special purpose, warning, distance, or location markers).

2. Second letter—Major color or specific purpose

B—Black D—Distance daymark  
G—Green L—Location daymark  
R—Red W—White

3. Third letter (range daymarks only)—Color of center vertical stripe.

4. Additional information required after a dash (—)

—I—Intracoastal Waterway (a yellow, reflective horizontal strip on a daymark having lateral significance indicates that the daymark marks the Intracoastal Waterway).

—SY—Dual Purpose (a yellow, reflective square on the daymark has lateral significance as a square daymark for the Intracoastal Waterway. The lateral significance of the daymark for the other waterway is given by the shape and color of the daymark itself).

—TY—Dual Purpose (a yellow reflective triangle on the daymark is used to indicate lateral significance as a triangle daymark for the Intracoastal Waterway. The lateral significance of the daymark for the other waterway is indicated by the shape and color of the daymark itself).

**EXAMPLE:** The designation KRW—I indicates a range daymark (K), key color red (R), with a white vertical stripe (W), in the Intracoastal Waterway (—I).

**Descriptions:**

\* Indicates daymark is being phased out of service.

\* SB Square-shaped black daymark with a green reflective border.

\* SB—I Square-shaped black daymark with a yellow reflective border.

\* SB—SY Square-shaped black daymark with a green reflective border, and with a yellow reflective square.

\* SB—TY Square-shaped black daymark with a green reflective border, and with a yellow reflective triangle.

SG Square-shaped green daymark with a green reflective border.

SG—I Square-shaped green daymark with a green reflective border, and with a yellow reflective horizontal strip.

SG—SY Square-shaped green daymark with a green reflective border, and with a yellow reflective square.

SG—TY Square-shaped green daymark with a green reflective border, and with a yellow reflective triangle.

\* SW Square-shaped white daymark with a green reflective border.

\* SW—I Square-shaped white daymark with a yellow reflective border.

\* SW—SY Square-shaped white daymark with a green reflective border, and with a yellow reflective square.

\* SW—TY Square-shaped white daymark with a green reflective border, and with a yellow reflective triangle.

TR Triangular-shaped red daymark with a red reflective border.

TR—I Triangular-shaped red daymark with a red reflective border, and with a yellow reflective horizontal strip, or

\* Triangular-shaped red daymark with a yellow reflective border.

TR—SY Triangular-shaped red daymark with a red reflective border, and with a yellow reflective square.

TR—TY Triangular-shaped red daymark with a red reflective border, and with a yellow reflective triangle.

\* JB Square-shaped daymark bearing horizontal bands of black and red, black band topmost, with a green reflective border.

\* JB—I Square-shaped daymark bearing horizontal bands of black and red, black band topmost, with a yellow reflective border.

\* JB—SY Square-shaped daymark bearing horizontal bands of black and red, black band topmost, with a green reflective border, and with a yellow reflective square.

\* JB—TY Square-shaped daymark bearing horizontal bands of black and red, black band topmost, with a green reflective border, with a yellow reflective triangle.

JG Square-shaped daymark bearing horizontal bands of green and red, green band topmost, with a green reflective border.

JG—I Square-shaped daymark bearing horizontal bands of green and red, green band topmost, with a green reflective border, and with a yellow reflective horizontal strip.

JG—SY Square-shaped daymark bearing horizontal bands of green and red, green band topmost, with a green reflective border, and with a yellow reflective square.

JG—TY Square-shaped daymark bearing horizontal bands of green and red, green band topmost, with a green reflective border, and with a yellow reflective triangle.

JR Triangular-shaped daymark bearing horizontal bands of green and red, red band topmost, with a red reflective border, or

\* Triangular-shaped daymark bearing horizontal bands of black and red, red band topmost, with a red reflective border.

JR—I Triangular-shaped daymark bearing horizontal bands of green and red, red band topmost, with a red reflective border, and with a yellow reflective horizontal strip, or

\* Triangular-shaped daymark bearing horizontal bands of black and red, red band topmost, with a yellow reflective border.

JR—SY Triangular-shaped daymark bearing horizontal bands of green and red, red band topmost, with a red reflective border, and with a yellow reflective square, or

\* Triangular-shaped daymark bearing horizontal bands of black and red, red band topmost, with a red reflective border, and with a yellow reflective square.

JR—TY Triangular-shaped daymark bearing horizontal bands of green and red, red band topmost, with a red reflective border, and with a yellow reflective triangle, or

\* Triangular-shaped daymark bearing horizontal bands of black and red, red band topmost, with a red reflective border, and with a yellow reflective triangle.

MB Octagonal-shaped daymark bearing vertical stripes of black and white, with a white reflective border.

MB—I Octagonal-shaped daymark bearing vertical stripes of black and white, with a white reflective border, and with a yellow reflective horizontal strip, or

\* Octagonal-shaped daymark bearing vertical stripes of black and white, with a yellow reflective border.

CG Diamond-shaped green daymark bearing small green diamond-shaped reflectors at each corner.

CR Diamond-shaped red daymark bearing small red diamond-shaped reflectors at each corner.

\* CW Diamond-shaped white daymark bearing small green diamond-shaped reflectors at each corner.

KBG Rectangular-shaped black daymark bearing a central green vertical stripe.

KBG—I Rectangular-shaped black daymark bearing a central green vertical stripe, and with a yellow reflective horizontal strip, or

\* Rectangular-shaped black daymark bearing a central green vertical stripe, and with a yellow reflective border.

KBR Rectangular-shaped black daymark bearing a central red vertical stripe.

KBR—I Rectangular-shaped black daymark bearing a central red vertical stripe, and with a yellow reflective horizontal strip, or

\* Rectangular-shaped black daymark bearing a central red vertical stripe, and with a yellow reflective border.

KBW Rectangular-shaped black daymark bearing a central white vertical stripe.

KBW—I Rectangular-shaped black daymark bearing a central white vertical stripe, and with a yellow reflective horizontal strip, or

\* Rectangular-shaped black daymark bearing a central white vertical stripe, and with a yellow reflective border.

KBW—II Rectangular-shaped black daymark bearing a central white vertical stripe.

KBW—III Rectangular-shaped black daymark bearing a central white vertical stripe.

	white vertical stripe, and with a yellow reflective horizontal strip, or
*	Rectangular-shaped black daymark bearing a central white vertical stripe, and with a yellow reflective border
KGB	Rectangular-shaped green daymark bearing a central black vertical stripe.
KGB-1	Rectangular-shaped green daymark bearing a central black vertical stripe, and with a yellow reflective horizontal strip, or
*	Rectangular-shaped green daymark bearing a central black vertical stripe, and with a yellow reflective border.
KGR	Rectangular-shaped green daymark bearing a central red vertical stripe.
KGR-1	Rectangular-shaped green daymark bearing a central red vertical stripe, and with a yellow reflective horizontal strip, or
*	Rectangular-shaped green daymark bearing a central red vertical stripe, and with a yellow reflective border.
KGW	Rectangular-shaped green daymark bearing a central white vertical stripe.
KGW-1	Rectangular-shaped green daymark bearing a central white vertical stripe, and with a yellow reflective horizontal strip, or
	Rectangular-shaped green daymark bearing a central white vertical stripe, and with a yellow reflective border.
KRB	Rectangular-shaped red daymark bearing a central black vertical stripe.
KRB-1	Rectangular-shaped red daymark bearing a central black vertical stripe, and with a yellow reflective horizontal strip, or
*	Rectangular-shaped red daymark bearing a central black vertical stripe, and with a yellow reflective border.
KRG	Rectangular-shaped red daymark bearing a central green vertical stripe.
KRG-1	Rectangular-shaped red daymark bearing a central green vertical stripe, and with a yellow reflective horizontal strip, or
*	Rectangular-shaped red daymark bearing a central green vertical stripe, and with a yellow reflective border.
KRW	Rectangular-shaped red daymark bearing a central white vertical stripe.
KRW-1	Rectangular-shaped red daymark bearing a central white vertical stripe, and with a yellow reflective horizontal strip, or
*	Rectangular-shaped red daymark bearing a central white vertical stripe, and with a yellow reflective border.
KWB	Rectangular-shaped white daymark bearing a central black vertical stripe.
KWB-1	Rectangular-shaped white daymark bearing a central black vertical stripe, and with a yellow reflective horizontal strip, or
	Rectangular-shaped white daymark bearing a central black vertical stripe, and with a yellow reflective border.
KWG	Rectangular-shaped white daymark bearing a central green vertical stripe.
KWG-1	Rectangular-shaped white daymark bearing a central green vertical stripe, and with a yellow reflective horizontal strip, or
*	Rectangular-shaped white daymark bearing a central green vertical stripe, and with a yellow reflective border.
KWR	Rectangular-shaped white daymark bearing a central red vertical stripe.
KWR-1	Rectangular-shaped white daymark bearing a central red vertical stripe, and with a yellow reflective horizontal strip, or
*	Rectangular-shaped white daymark bearing a central red vertical stripe, and with a yellow reflective border.
NB	Diamond-shaped special purpose daymark divided into four diamond-shaped colored sectors with the sectors at the side corners white and the sectors at the top and bottom corners black.
NG	Diamond-shaped special purpose daymark divided into four diamond-shaped colored sectors with the sectors at the side corners white and the sectors at the top and bottom corners green.

NR	Diamond-shaped special purpose daymark divided into four diamond-shaped colored sectors with the sectors at the side corners white and the sectors at the top and bottom corners red.
NW	Diamond-shaped white warning daymark with an orange reflective border and the word "DANGER" with a word or words describing the nature of the danger.
ND	Rectangular-shaped white mileage marker with black numerals indicating the mile number.
NL	Rectangular-shaped white location marker with black letters indicating the location, and with an orange reflective border.

*These abbreviated descriptions are used in column six and may also be found on the illustrations of aids to navigation in back of book*

\* Indicates daymark is being phased out of service

## RADIOBEACONS

The Coast Guard operates about 200 radiobeacons located at lighthouses, lightships, large buoys and along the coasts, and in the Great Lakes, all positions being charted.

In order to use this system, the mariner needs a radio direction finder, which is a specially designed radio receiver with a directional antenna. This antenna is used to determine the direction of the signal being emitted by the station, relative to his vessel.

The basic value of the radiobeacon system lies in its availability in all weather, its simplicity of operation and its relatively low user costs. The general problems and practices of navigation when using radiobeacons are very similar to those encountered when using visual beacons of lighthouses or other charted objects.

A radiobeacon is basically a short range navigational aid, with ranges from 10 to 175 nautical miles. Although beacons can be obtained at greater ranges, they will be of doubtful accuracy and should be used with caution. When the distance to a radiobeacon is greater than 50 miles, a correction is usually applied to the bearing before plotting on a mercator chart. These corrections, as well as information on accuracy of bearings, plotting, and other matters, are contained in Defense Mapping Agency Hydrographic Center publication H. O. 117 (Radio Navigational Aids).

All radiobeacons operated and maintained by the U. S. Coast Guard are classified as either Sequenced or Continuous. Some continuous radiobeacons have been termed Markerbeacons. These radiobeacons are low powered (typical range of 10 to 20 miles), continuously operating for local use only. They are primarily designed to be used as homing beacons to harbor areas. Most markerbeacons do not have identifying characteristics. Identification is made by specific operating frequency and by their continuous operation. In the future all markerbeacons will be converted to continuous beacons utilizing an identifying characteristic.

The characteristic identifiers assigned to marine radiobeacons in this country have been limited to a brief and simple combination of dots and dashes much like our lights along the coast, except that radiobeacons have a 10-second dash at the end of each operating minute to allow a mariner to refine his bearing. Also, the identifying signal of all marine radiobeacons is superimposed on a continuous carrier to facilitate their use by navigators having automatic direction finders. Note: The Coast Guard is presently assigning Morse Code identifying characteristics to marine radiobeacons. Eventually all marine radiobeacons will exhibit a two or three letter characteristic.

Service range is determined by the strength of the radiated signal. Field strength requirements for a given service range vary with latitude, being higher in the southern latitudes. The actual useful range may vary considerably from the service range with different types of radio direction finders and during various atmospheric conditions.

Interference may result from either distant radiobeacons or from other Government radio stations operating on or near the same frequency. Any vessels observing radiobeacon interference should promptly report it to the nearest District Coast Guard Office or to the Commandant, United States Coast Guard, Washington, D. C. 20590.

Include in such reports information regarding the date, time, identifying characteristic, strength of the interfering signals, and vessel's position. These interference reports are important and cooperation from the mariner in this respect will assist the Coast Guard in improving the radiobeacon service.

### RADIO DIRECTION FINDERS

Accuracy of radio direction finders is dependent upon the skill of the operator, the equipment used, and radio wave interference. Skill in operations of a manual radio direction finder can be acquired only through practice and by following the operating instructions provided with the equipment. An understanding of adverse conditions and direction finding limitations will be an asset to the prudent navigator.

Erroneous radio direction finder bearings may result from the following conditions:

(a) Currents induced in the direction finder antenna by re-radiation from the structural features of the vessel's superstructure and distortion of the radio wave front due to the physical dimensions and contour of the vessel's hull.

(b) Night effect caused by the combination of two radio wave fronts arriving at the receiver simultaneously. One wave travels directly from the transmitter to the direction finder and is called the ground wave. The other is a downcoming radio wave reflected off the ionosphere and is called the skywave. This effect is more predominant around the time of morning and evening twilight, but it remains throughout the night on the low frequency band. On higher frequencies a similar effect exists during the day as well as at night. Beyond the normal groundwave range, only the skywave is received.

Bearings taken around the periods of morning and evening twilight and at night should be treated or accepted with doubt as to their accuracy.

Since the skywave itself is complex in nature it should not be used with a conventional direction finder.

(c) Lateral deviation of the radio wave can occur when the great circle route between the transmitter and the receiver is roughly parallel to a coastline or passes over a coastline. Bearings that are within 10 to 15 degrees of a coastline should not be trusted. Likewise, bearings taken when a land mass is between the transmitter and the vessel should be used with caution.

(d) Most direction finders have a vertical sensing antenna to eliminate any possibility of a 180 degree error in reading. Such an ambiguity is possible in all direction finders if the sensing circuits should become inoperative.

**Conclusions:** Correct direction finder calibration will compensate for errors caused by induced currents and vessel configuration. The usual method of calibration is to obtain a series of simultaneous radio and visual bearings on a transmitter. This may be done while a ship swings at anchor, or more quickly by steaming in a circle within sight of the transmitting antenna. It is essential that radio direction finders be accurately calibrated; therefore, recalibration should be made after any changes to the ship's structure or rigging or whenever there is reason to believe the previous calibration has become inaccurate. The direction finder should be calibrated by competent personnel.

Before taking bearings on a commercial station broadcasting entertainment programs, the mariner should consider:

(a) The operating frequency of the station may differ widely from the frequency for which the direction finder is calibrated.

(b) The broadcast antenna may be remote from the broadcast station and,

(c) The majority of these stations are inland.

Accordingly, the use of broadcast stations to obtain a direction finder bearing is not recommended.

Due to the many factors which enter into the transmission and reception of radio signals, a ship cannot estimate with

any degree of accuracy its distance from a radiobeacon by the strength of the received signals.

A vessel steering a course for a radiobeacon should observe the same precautions that apply when steering for a light or any other mark. If the radiobeacon is a lightship or off-shore platform, particular care should be exercised to avoid the possibility of collision. Sole reliance should never be placed on sighting the lightship or light station or listening for a fog signal in time to avoid a collision.

As a further aid to assure proper direction finder operation, the mariner should check, whenever possible, the accuracy of the direction finder against visual bearings. This will afford the operator practice and confidence in his equipment as well as an operational check of the direction finder itself.

All mariners using U. S. Coast Guard radiobeacon transmissions for navigation of their vessel must understand the limitations of the direction finding equipment and the possible erroneous bearings due to causes outside the control of the U. S. Coast Guard. In order to understand the limitations and capabilities of his direction finder, the mariner must understand the following definitions:

(a) **Sensitivity** is defined as a measure of the ability of a receiver to detect transmissions. All direction finder receivers do not have the same sensitivity; some will receive a radiobeacon signal at its rated range while others will not be able to hear the same signal until they are closer to the radiobeacon transmitter. For example, some direction finders have a sensitivity of 50 microvolts per meter on the radiobeacon band which means they are capable of homing on a radio signal whose intensity is 50 microvolts or more. A direction finder, having a sensitivity of 100 microvolts per meter, will be unable to receive a radiobeacon signal rated at 50 microvolts per meter at 100 miles until 25 miles from the radiobeacon station. At 25 miles, the signal strength of the transmitted signal is 100 microvolts per meter, which is equal to the sensitivity of the receiver. From the foregoing, it can be seen that the sensitivity of a direction finder determines the degree to which the full capability of the radiobeacon system can be utilized. Mariners should bear this fact in mind when selecting equipment.

(b) **Selectivity** is a measure of the ability of a receiver to choose one frequency and reject all others. The extent of selectivity will vary with the type of receiver and its condition. The transmitted radiobeacon signal is normally composed of two frequencies that are separated by 1020 hertz (i.e. 286.00 kHz and 287.020 kHz). A direction finder capable of accepting only this narrow band of frequencies would be ideal. If a direction finder accepts a wide band of frequencies (i.e. 280 to 292 kHz when tuned to 286 kHz), it will admit more noise and more undesired signals. This additional interference may reduce the usefulness of the desired signal, and effectively decrease the maximum range of reception of the radiobeacon. The marine radiobeacon system is based on direction finder selectivity specifications as follows:

Frequency deviation from resonant frequency kHz*	DB below resonance response	Approximate signal ratios for rejection of undesired
±2	3	1.4
±3	12	4.0
±4	25	17.5
±6	50	300.0
±9	70	3,000.0
±12	80	10,000.0

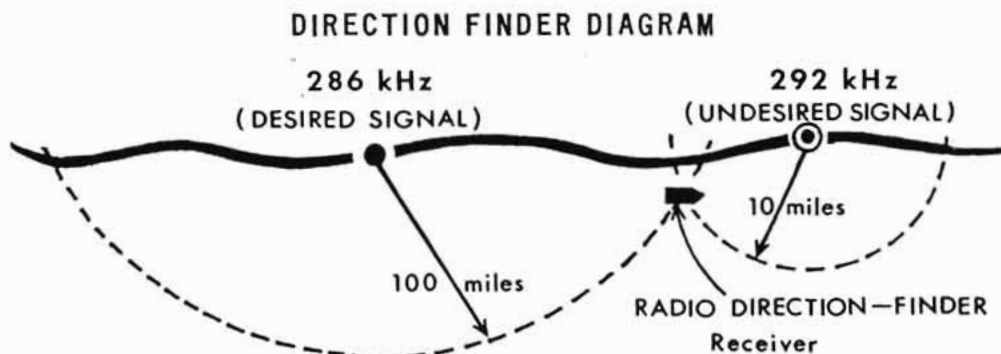
\* Resonant frequency is that frequency to which the receiver is tuned.

Errors in bearing may result in a radio direction finder if its selectivity is poor. For example: a bearing is desired on a radiobeacon transmitting on 286 kHz and having a field intensity of 50 microvolts per meter at 100 miles. Assume

that a ten mile marker radiobeacon is operating on 292 kHz as shown in the Direction Finder Diagram. The direction finder is located near the extreme service range of both transmitters.

Using the desired selectivity tables shown previously, a direction finder with these characteristics can distinguish between the two frequencies. The desired 286 kHz radio-

beacon signal affects the direction finder 300 times more than the undesired marker radiobeacon signal. If the selectivity were half as good, the desired 286 kHz signal would affect the direction finder only four times more than the undesired 292 kHz signal. The resultant bearing obtained would probably be some value between the two radiobeacons.



## GREAT LAKES RADIOBEACON SYSTEM - By frequencies

## SEQUENCED

Freq. kHz	Group Sequence	Station	Characteristic	Range (miles)	Lat. (N) ° ' "	Long. (W) ° ' "	
292	I	WHITEFISH POINT, MICH.	(.....)	100	46 46 18	84 57 28	
	II	CARIBOU ISLAND, ONT.	A (.....)	40	47 20 23	85 49 32	
	III	MARQUETTE, MICH.	W (.....)	60	46 32 47	87 22 30	
	IV	SLATE ISLAND, ONT.	B (.....)	30	48 37 11	86 59 46	
	V	MICHIPICOTEN ISLAND, ONT.	Q (.....)	30	47 45 15	85 35 45	
	VI	MICHIPICOTEN HARBOR, ONT.	R (.....)	30	47 56 33	84 54 27	
294	I	CLEVELAND, OHIO	C (.....)	50	41 30 32	81 43 04	
	II	LONG POINT, ONT.	L (.....)	40	42 33 00	80 03 20	
	III	PORT COLBORNE, ONT.	Z (.....)	35	42 52 07	79 15 10	
	IV	ERIE HARBOR, PA.	Y (.....)	20	42 09 21	80 04 17	
	V	LONG POINT, ONT.	L (.....)	40	42 33 00	80 03 20	
	VI	PORT COLBORNE, ONT.	Z (.....)	35	42 52 07	79 15 10	
296	II	DEVILS ISLAND, WISC.	O (.....)	70	47 04 46	90 43 44	
	III	TWO HARBORS, MINN.	P (.....)	40	47 00 51	91 39 48	
	V	DULUTH HARBOR, MINN.	(.....)	70	46 46 49	92 05 16	
	VI	KEWEENAW LOWER ENT.	(.....)	40	46 58 12	88 25 54	
298	I	NORTH MANITOU ISLAND MICH.	E (.....)	20	45 01 16	85 57 27	
	II	POINT BETSIE, MICH.	P (.....)	50	44 41 30	86 15 18	
	III	MILWAUKEE, WISC.	M (.....)	50	43 01 37	87 52 55	
	IV	MUSKEGON, MICH.	C (.....)	50	43 13 36	86 20 23	
	V	CHICAGO, ILL.	(.....)	50	41 53 21	87 35 26	
	VI	INDIANA HARBOR, IND.	Y (.....)	70	41 40 51	87 26 28	
	I	OWEN SOUND, ONT.	X (.....)	30	44 34 43	80 56 19	
	II	COLLINGWOOD, ONT.	C (.....)	50	44 30 29	80 12 33	
	III	HOPE ISLAND, ONT.	F (.....)	50	44 54 50	80 10 00	
	IV	SNUG HARBOR, ONT.	R (.....)	50	45 22 26	80 18 38	
	V	GEREAUX ISLAND, ONT.	J (.....)	30	45 44 39	80 39 35	
	VI	KILLARNEY, ONT.	K (.....)	30	45 58 05	81 29 22	
	302	I	DETOUR REEF, MICH.	(.....)	40	45 56 58	83 54 12
		II	POE REEF, MICH.	W (.....)	40	45 41 41	84 21 43
		III	ST. MARTIN, MICH.	C (.....)	20	45 30 16	86 45 28
		IV	DETOUR REEF, MICH.	(.....)	40	45 56 58	83 54 12
V		LANSING SHOAL, MICH.	Z (.....)	50	45 54 12	85 33 42	
VI		GRAYS REEF, MICH.	X (.....)	40	45 45 57	85 09 13	
I		PORT WELLER, ONT.	V (.....)	30	43 14 39	79 13 06	
II		BURLINGTON BAY, ONT.	R (.....)	25	43 18 04	79 47 26	
IV		PORT WELLER, ONT.	V (.....)	30	43 14 39	79 13 06	
V		BURLINGTON BAY, ONT.	R (.....)	25	43 18 04	79 47 26	
306	I	TIBBETS POINT, N. Y.	Q (.....)	30	44 06 03	76 22 14	
	II	MAIN DUCK ISLAND, ONT.	Y (.....)	30	43 55 53	76 38 20	
	III	POINT PETRE, ONT.	P (.....)	30	43 50 20	77 09 19	
	IV	OSWEGO, N. Y.	W (.....)	60	43 28 24	76 31 01	
	V	ROCHESTER, N. Y.	M (.....)	60	43 15 25	77 36 11	
	VI	ASHTABULA, OHIO	G (.....)	40	41 55 06	80 47 46	
	II	SANDUSKY, OHIO	X (.....)	40	41 29 17	82 41 39	
	III	SOUTHEAST SHOAL, ONT.	H (.....)	40	41 49 40	82 27 40	
	IV	DETROIT RIVER, MICH.	M (.....)	20	42 00 03	83 08 28	

## GREAT LAKES RADIOBEACON SYSTEM - By frequencies (Cont'd)

## SEQUENCED

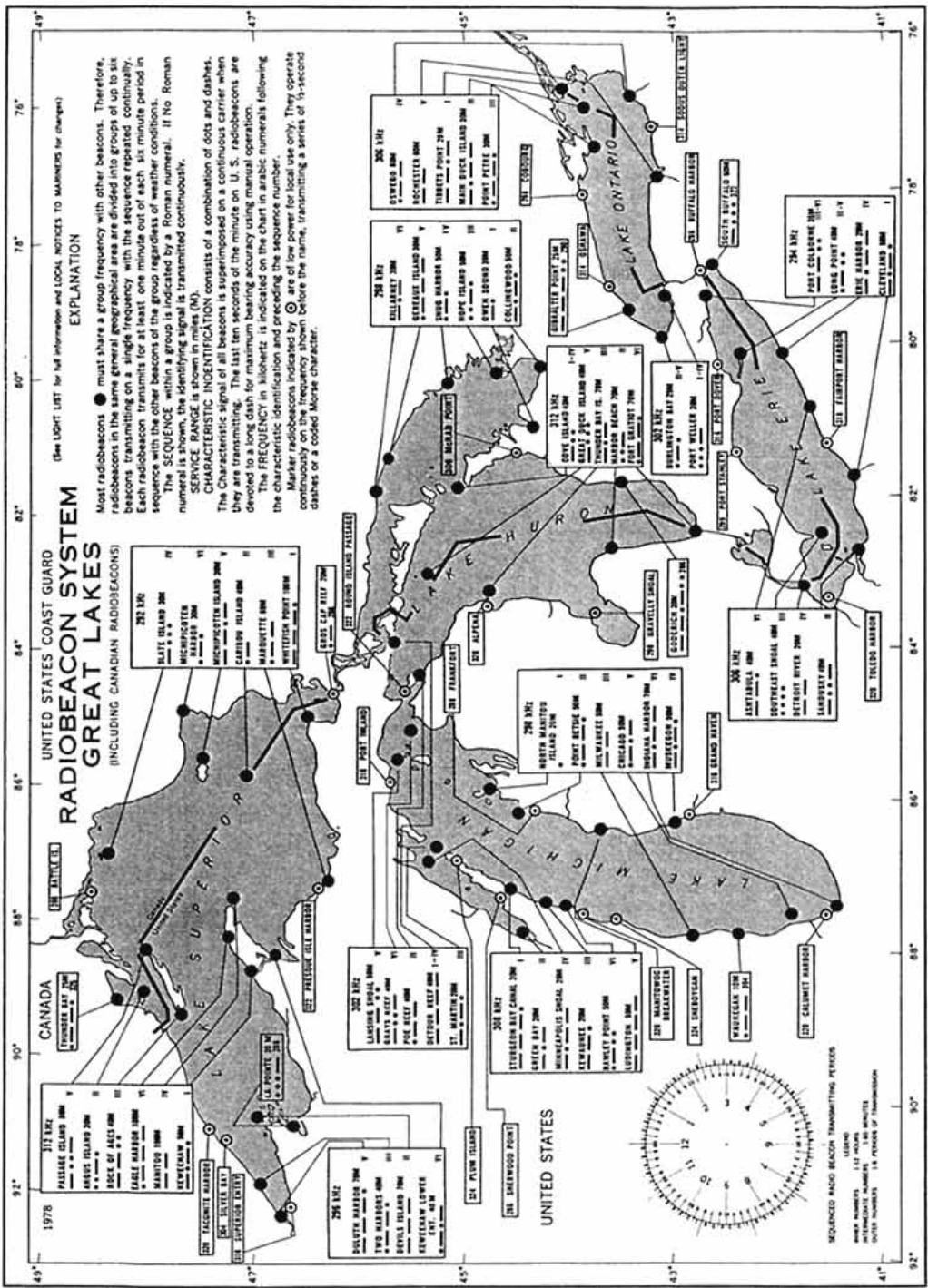
Freq. kHz	Group Sequence	Station	Characteristic	Range (miles)	Lat. (N) ° ' "	Long. (W) ° ' "
308	I	STURGEON BAY CANAL, WISC.	( m m m m )	20	44 47 42	87 18 48
	II	GREEN BAY, WISC.	K ( m m m )	20	44 39 12	87 54 04
	III	KEWAUNEE, WISC.	G ( m m m )	20	44 27 27	87 29 35
	IV	MINNEAPOLIS SHOAL, MICH.	Y ( m m m m )	20	45 34 54	86 59 56
	V	LUDINGTON, MICH.	( m m m m )	50	43 57 11	86 27 36
	VI	RAWLEY POINT, WISC.	L ( m m m m )	50	44 12 40	87 30 30
312	I	KEWEENAW, MICH.	C ( m m m m )	50	47 13 40	88 37 27
	II	ANGUS ISLAND, ONT.	F ( m m m m )	30	48 14 09	89 00 25
	III	ROCK OF AGES, MICH.	Z ( m m m m )	40	47 52 00	89 18 50
	IV	MANITOU, MICH.	M ( m m m )	100	47 25 12	87 35 18
	V	PASSAGE ISLAND, MICH.	X ( m m m m )	80	47 13 24	88 22 00
	VI	EAGLE HARBOR, MICH.	J ( m m m m )	100	47 27 40	88 09 32
	I	COVE ISLAND, ONT.	D ( m m m )	40	45 19 40	81 44 09
	II	HARBOR BEACH, MICH.	U ( m m m )	70	43 50 46	82 37 53
	III	THUNDER BAY ISLAND, MICH.	K ( m m m m )	70	45 02 13	83 11 40
	IV	COVE ISLAND, ONT.	D ( m m m )	40	45 19 40	81 44 09
	V	GREAT DUCK ISLAND, ONT.	B ( m m m m )	40	45 38 30	82 57 48
	VI	FORT GRATIOT, MICH.	P ( m m m m m )	70	43 00 17	82 25 22

## CONTINUOUS

286	GODERICH, ONT.	GD ( m m m m m )	30	43 44 48	81 43 55
286	GROS CAP REEF, ONT.	A ( m m )	20	46 30 45	84 36 54
288	LA POINTE, WISC.	V ( m m m m )	20	46 43 44	90 47 05
290	GIBRALTER POINT, ONT.	TZ ( m m m m m )	25	43 36 50	79 23 10
304	WAUKEGAN, ILL.	W ( m m m )	10	42 21 38	87 48 48
322	SOUTH BUFFALO, N. Y.	B ( m m m m )	60	42 50 01	78 52 04
325	THUNDER BAY, ONT.	P ( m m m m )	25	48 25 57	89 11 46

## MARKER

Freq. kHz	Station	Characteristic	Range (miles)	Lat. (N) ° ' "	Long. (W) ° ' "
286	BATTLE ISLAND, ONT.			48 45 06	87 33 24
286	SHERWOOD POINT, WISC.			44 53 34	87 26 00
286	BUFFALO HARBOR, N. Y.			42 52 14	78 54 09
288	FRANKFORT, MICH.			44 37 50	86 14 42
288	COBourg, ONT.			43 57 12	78 09 53
290	GRAVELLY SHOAL, MICH.			44 01 12	83 32 18
299	PORT STANLEY, ONT.			42 39 18	81 12 49
304	SILVER BAY, MINN.			47 16 53	91 15 51
306	McNAB POINT, ONT.			44 28 23	81 23 36
314	SODUS OUTER LIGHT, N. Y.			43 16 39	76 58 27
314	OSHAWA, ONT.			43 15 52	78 49 19
316	GRAND HAVEN, MICH.			43 03 27	86 15 22
316	SUPERIOR ENTRY SOUTH BREAKWATER, WISC.			46 42 37	92 00 22
316	PORT DOVER, ONT.			42 46 51	80 12 06
318	PORT INLAND, MICH.			45 58 09	85 52 38
318	FAIRPORT HARBOR, OHIO			41 46 04	81 16 52
320	TOLEDO HARBOR, OHIO			41 45 43	83 19 44
320	ALPENA, MICH.			45 03 36	83 25 22
320	CALUMET HARBOR, ILL.			41 43 34	87 29 36
320	MANITOWOC BREAKWATER, WISC.			44 05 34	87 38 37
320	TACONITE HARBOR, MINN.			47 31 18	90 55 24
322	ROUND ISLAND PASSAGE, MICH.			45 50 34	84 36 55
322	PRESQUE ISLE HARBOR, MICH.			46 34 28	87 22 28
324	PLUM ISLAND, WISC.			45 18 42	86 57 28
324	SHEBOYGAN, WISC.			43 44 58	87 42 15



**UNITED STATES COAST GUARD  
RADIOBEACON SYSTEM  
GREAT LAKES  
(INCLUDING CANADIAN RADIOBEACONS)**

(See LIGHT LIST for full information and LOCAL NOTICES TO MARINERS for changes)

**EXPLANATION**

Most radio beacons **●** must share a group frequency with other beacons. Therefore, radio beacons in the same general geographical area are divided into groups of up to six beacons, transmitting on a single frequency with the sequence repeated continuously. Each radio beacon transmits for at least one minute out of each 30 minute period in sequence. Other beacons in the group repeat the sequence on a different frequency. The sequence number is shown in the group frequency call sign. If no Roman numeral is shown, the identifying signal is transmitted continuously.

**SERVICE RANGE** is shown in miles (M).

**CHARACTERISTIC IDENTIFICATION** consists of a combination of dots and dashes. The characteristic signal of all beacons is superimposed on a continuous carrier when they are transmitting. The last ten seconds of the minute on U. S. radio beacons are devoted to a long dash for maximum bearing accuracy using manual operation. The **FREQUENCY** in kilohertz is indicated on the chart in arabic numerals following the characteristic identification and preceding the sequence number.

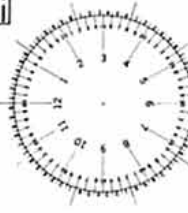
Marker radio beacons indicated by **⊙** are of low power for local use only. They operate continuously on the same frequency as the main beacon, transmitting a series of 4-second dashes or a coded Morse character.

1976

CANADA

UNITED STATES

SEQUENCED RADIO BEACON TRANSMITTING PERIODS  
 1ST MINUTE 1ST 10 SECONDS  
 2ND MINUTE 1ST 10 SECONDS  
 3RD MINUTE 1ST 10 SECONDS  
 4TH MINUTE 1ST 10 SECONDS  
 5TH MINUTE 1ST 10 SECONDS



**131 18Z**  
 PASSAGE ISLAND 30M  
 1000.0 MHz  
 .....

**292 18Z**  
 SLATE ISLAND 30M  
 1000.0 MHz  
 .....

**293 18Z**  
 MICHIGAN ISLAND 30M  
 1000.0 MHz  
 .....

**294 18Z**  
 CLATSOP ISLAND 30M  
 1000.0 MHz  
 .....

**295 18Z**  
 MARQUETTE 30M  
 1000.0 MHz  
 .....

**296 18Z**  
 WHEATCROFT POINT 30M  
 1000.0 MHz  
 .....

**300 18Z**  
 LAKE CHARLES 30M  
 1000.0 MHz  
 .....

**302 18Z**  
 LANSING SIGNAL 30M  
 1000.0 MHz  
 .....

**303 18Z**  
 SAULT STEVENS 30M  
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**304 18Z**  
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**305 18Z**  
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**306 18Z**  
 GREEN BAY 30M  
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**307 18Z**  
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**308 18Z**  
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**309 18Z**  
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**310 18Z**  
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**311 18Z**  
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**312 18Z**  
 BREAKWATER 30M  
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**313 18Z**  
 EMERYHEAD 30M  
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**314 18Z**  
 PULASKI 30M  
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**315 18Z**  
 CALUMET HARBOR 30M  
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**316 18Z**  
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**317 18Z**  
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**318 18Z**  
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## LORAN

Loran (an acronym for Long Range Navigation) is a radio-navigation system operating on the principle that the difference in the time of arrival of radio pulses from two precisely synchronized transmitting stations describes a hyperbolic line of position (LOP). This time difference is measured by the user with a special receiver, and converted into a geographic LOP by the use of Loran Charts or Tables. Since at least 2 LOP's must be determined to establish a position fix, the user must be within the range of two pairs of transmitting stations, or as is normally the case, a Loran chain whereby one centrally-located station serves a double function and operates independently with each of the other stations.

The accuracy of a Loran fix is determined by the accuracy of the individual lines of position used to establish the fix and by their angle of intersection. The accuracy of an individual line of position in turn depends upon the following factors:

- Synchronization of the transmitting stations.
- Skill of the operator.
- Type of receiver and its condition.
- Skill in plotting the line of position.
- Uncertainty of skywave correction when such waves are used.
- Position of user relative to the transmitting stations.
- Accuracy of tables and charts.

Each Loran rate is continuously monitored to determine that proper synchronization is being maintained. When the synchronization error exceeds the advertised tolerance the user is advised by the blinking of one or both signals and is thereby warned not to use the rate.

Loran position determination on or near the baseline extensions are subject to significant geometric errors and, therefore, should be avoided whenever possible. The use of skywaves is not recommended within 250 miles of either station, and corrections for these areas are not usually tabulated.

Loran charts, which are conventional navigation charts over printed with Loran time difference LOP's for plotting Loran position fixes, may be purchased from the National Ocean Survey (C44), Riverdale, MD. 20840. Loran Tables for calculating the geographic position from the time difference measurements may be purchased from Defense Mapping Agency Hydrographic Center, Washington, D.C. 20390. There are Loran systems being operated by the Coast Guard, Loran-A and Loran-C.

The techniques for identifying Loran signals are explained in Publication No. 9-The American Practical Navigator, Loran-C user handbook, CG-462, and in various Loran receiving equipment manuals and in the Loran Tables (Pub 221). A familiarity with these techniques is necessary to avoid trouble and to make the most of the Loran System potentialities.

## LORAN-C

Loran-C operates in the frequency 90-110 kHz Frequency band. The Loran-C chain consists of a master station and two or more secondary stations which transmit in sequence on the same repetition rate. This characteristic allows the operator to make two time difference (TD) measurements without changing channels. The lower Loran-C frequency provides usable ground wave signals over a long range. Loran-C signals are transmitted in groups of eight pulses (the master group contains a ninth pulse for identification). The chain designators for Loran-C are 4 digit numbers which indicate the pulse group repetition interval (GRI) in tens of microseconds.

### LORAN-C RECEIVERS

There are many types of Loran-C receivers available. They employ various techniques for acquiring and tracking the Loran-C signals, and indicating the time difference or position information to the user. A Loran-C receiver which will be useful to the limits of the Coast Guard's advertised Loran-C coverage for the U.S. Coast Confluence Zone, and which is capable of measuring position with the accuracy which is advertised for Loran-C has the following characteristics:

- It acquires the Loran-C signals automatically, without the use of an oscilloscope.
- It identifies master and secondary ground-wave pulses automatically, and accomplishes cycle matching on all eight pulses of each master-secondary pair used.
- It tracks the signals automatically once they have been acquired.
- It displays two time-difference readings, to a precision of at least one-tenth of a microseconds.
- It has notch filters to minimize the effects of radio frequency interference in the area of its operation.
- It automatically detects blink and alerts the operator. Blink is a condition of blinking on and off the first two of the eight pulses of a secondary station to indicate an out of tolerance condition for that master-secondary pair.

Loran-C coverage presently exists along the Western Coast of North America from the Bering Sea Southward along the Gulf of Alaska, Western Canada, and the U.S. West Coast down to the Mexico border. Along the East Coast, coverage exists from Nova Scotia Southward to Northern Florida. There is also some coastal coverage along the Gulf Coast from around New Orleans, LA to Tampa, Fla. World wide Loran-C coverage (including that described above) may be found on the Loran-C Coverage Diagram, Defense Mapping Agency HO-5130.

Loran-C service is being expanded in the United States as follows:

- Summer 1978-Complete Gulf of Mexico Coverage and expand coverage of the U.S. East Coast.
- Summer 1979-Complete the U.S. East Coast expansion to provide continuous coverage from the Gulf of Mexico to Nova Scotia.
- Spring 1980-Complete Great Lakes Coverage.

## COAST GUARD RADIO STATIONS

### GENERAL BROADCAST NOTICES:

The Coast Guard has authorized the boating and maritime public to crystallize and use Channel 22A (157.1 MHz) VHF-FM for communications with the Coast Guard. The procedure is to contact the Coast Guard on Channel 16 (156.8 MHz) then shift to Channel 22A to communicate. The Coast Guard will not continuously monitor channel 22A.

The Coast Guard broadcasts all Safety, Urgent and other Marine Information Broadcasts on Channel 22A.

The Coast Guard has begun the phase-out of the standard AM (2182 KHz) capability on the Great Lakes in accordance with recent FCC regulations requiring all AM stations to be VHF-FM equipped and to shift AM to SSB. The Coast Guard now has complete VHF-FM coverage of all U. S. portions of the Great Lakes. The boating and maritime public is encouraged to shift their communications from AM to the more reliable VHF-FM as soon as possible.

**Radio Frequencies.** The following frequencies are available at most Coast Guard shore stations for communications with non-government vessels:

**Channel 16 (156.8 MHz)** - International Calling and Distress Frequency (VHF-FM). This frequency is guarded continuously by all radio equipped shore stations and by all Coast Guard vessels when underway. This frequency may be used to transmit and receive distress, urgent and safety information.

**Channel 22A (157.1 MHz)** - This frequency is the Coast Guard working and broadcast frequency. After establishing communications with the Coast Guard on Channel 16 a shift to this channel to pass information will be made. All Coast Guard Marine Information Broadcasts are made on this frequency after a preliminary announcement on Channel 16. Operation on this channel is restricted to communications with the Coast Guard only.

**Channel 12 (156.6 MHz)** - Port operations frequency. The use of this frequency by the Coast Guard is restricted to communications involving vessel movements and/or information which affects the safety of vessels or persons.

### Types and Subjects of Broadcasts

#### a. The Coast Guard has three (3) types of broadcasts:

(1) **Scheduled Broadcasts.** These include important notices to mariners, oceanographic information, storm warnings, advisories and other important marine information.

(2) **Safety Broadcasts.** These include information so important to the safety of navigation such that a delay in its dissemination would definitely create a hazard to boating/shipping.

(3) **Urgent Broadcasts.** These include information concerning the safety of a ship, aircraft or other vehicle, or the safety of a person. Weather is never the subject of urgent broadcasts.

#### b. The Coast Guard uses the following broadcast subjects:

(1) **Routine Weather (WX).** The National Weather Service (NWS) furnishes routine weather information to Coast Guard Stations for broadcast to the mariner. These are made on scheduled broadcasts. The NWS also broadcasts weather, routine and warnings, on their continuous broadcast frequencies of 162.400 and 162.550 MHz VHF-FM.

(2) **Weather Bureau Storm Warnings (SW).** The NWS furnishes storm warning information to Coast Guard Station for broadcast to the mariner. These are made on scheduled or safety broadcast. The NWS also broadcasts weather, routine and warnings, on

their continuous broadcast frequencies of 162.400 and 162.550 MHz VHF-FM.

(3) **Environmental Conditions (HD).** In connection with the safety of traffic within restricted channels and rivers, Coast Guard Group Office Sault Ste. Marie and Coast Guard Station Belle Isle make scheduled broadcasts of environmental conditions which affect the safety of vessels entering or transiting their respective areas. These two units plus Coast Guard Station Alexandria Bay make safety broadcasts for environmental conditions which include information on ice conditions, visibility information, channel obstruction, river passage control, water level readings and other conditions which may constitute a hazard to vessels.

(4) **Notice to Mariners (NTM).** Notice to Mariners contain information of vital interest to the maritime community. Units authorized to make scheduled and/or safety broadcasts of Notice to Mariners are listed below. Additional Coast Guard units may, at the discretion of the District Commander, be directed to broadcast a Notice to Mariners when local coverage of a specific area is required. Certain commercial marine radio stations also broadcast Notice to Mariners.

### Marine Information Broadcast

a. The frequencies used to make marine information broadcasts are as follows:

(1) Channel 16 (156.8 MHz) is used for the preliminary call and announcement of all scheduled and safety broadcasts that are designated to be made on Channel 22A (157.1 MHz).

(2) The preliminary call and announcement of all scheduled and safety broadcasts that are designated to be made on Channel 56 (2670 KHz) are made on Channel 51 (2182 KHz). This broadcast is being phased-out as part of the shift from AM communications to VHF-FM communications. Mariners are encouraged to equip themselves with VHF-FM as soon as possible.

(3) Urgent broadcasts are made entirely on Channel 16 (156.8 MHz) VHF-FM and Channel 51 (2182 KHz) AM, and are then repeated on the scheduled broadcast.

**Distress.** The distress signal "MAYDAY" indicates that a ship, aircraft or other vehicle is threatened by grave and imminent danger and requests immediate assistance.

a. The distress call consists of the distress signal "MAYDAY", spoken three times, the words "This is" and the identification of the station in distress, spoken three times.

b. The distress call shall have absolute priority over all other transmissions. All stations which hear it shall immediately cease any transmission capable of interfering with the distress traffic and shall continue to listen on the frequency used for the emission of the distress call. This call shall not be addressed to a particular station and acknowledgement of receipt shall not be given before the distress message which follows it is sent.

#### c. The radiotelephone distress message consists of:

- (1) the distress signal "MAYDAY" (sent three times);
- (2) the name or other identification of the mobile station in distress;
- (3) particulars of its position;
- (4) the nature of the distress and the kind of assistance desired;
- (5) any other information which might facilitate the rescue.

d. Any person transmitting false distress information is liable for a maximum fine of \$10,000.00 and/or imprisonment for one year (FCC Rules and Regulations).

**BROADCASTS NOTICE TO MARINERS**

Broadcasts are made from U. S. Coast Guard and Commercial Marine Radiotelephone Stations of important deficiencies of aids to navigation, recommended drafts for the Detroit and St. Marys Rivers, and other matters affecting the safety of navigation which require immediate notice.

The following commercial radiotelephone stations maintain continuous watch on 2182 kHz. (Channel 51) and 156.8 mHz (channel 16) for safety, urgent, or distress traffic, and are equipped to transmit on 2182 kHz. (Channel 51) for this type of traffic:

**WMI - Lorain, Ohio**  
Lorain Electronics Corporation

41°26' 25" N., 82°13' 45" W.  
Power: 50 watts.

**Notice to Mariners for St. Marys River, Lake Michigan, Lake Huron, St. Clair River, Lake St. Clair and Lake Erie.**  
Freq: 156.8 mHz (Channel 16) for preliminary calling.  
161.900 mHz (Channel 26) for working.  
161.975 mHz (Channel 87) for working.  
Time: Channel 26 - Immediately upon receipt.  
Channel 26 - 1/2 hour after first broadcast.

**WLC - Rogers City, Mich.**  
Central Radio Telegraph Company

45°24' 19" N., 83°46' 16" W.  
Power: AM 1000 watts.  
FM 50 watts.

**Notice to Mariners for Lake Superior, St. Marys River, Lake Michigan, Lake Huron, St. Clair River and Lake St. Clair.**  
Freq.: 2182 kHz. (Channel 51) for preliminary calling.  
2514 kHz. (Channel 57) for working.  
2550 kHz. (Channel 58) for working.  
156.8 mHz (Channel 16) preliminary call.  
161.900 (Channel 26) for working.  
Time: Channel 57 AM and 26 FM - Immediately upon receipt.

**KVY - 601 - Duluth, Minn.**  
Lorain Electronics Corporation

46°51' 15" N., 91°51' 05" W.  
Power: 50 watts.

**Notice to Mariners for Lake Superior.**  
Freq: 156.8 mHz (Channel 16) preliminary calling.  
161.825 mHz (Channel 84) for working.  
Time: Channel 84 - Immediately upon receipt.  
Channel 84 - 1/2 hour after first broadcast.

**KVY - 605 - Port Washington, Wi.**  
Lorain Electronics Corporation

43°20' 36" N., 87°52' 36" W.

**Notice to Mariners for Lake Michigan**  
Freq: 156.8 mHz (Channel 16) preliminary calling.  
161.875 mHz (Channel 85) for working.  
Time: Channel 85 - Immediately upon receipt.  
Channel 85 1/2 hour after first broadcast.

**KVY - 604 - Surgeon Bay, Wi.**  
Lorain Electronics Corporation

Power 50 watts.

**Notice to Mariners for Lake Michigan**  
Freq: 156.8 mHz (Channel 16) for preliminary calling.  
161.975 mHz (Channel 87) for working.  
Time: Channel 87 - Immediately upon receipt.  
Channel 87 1/2 hour after first broadcast.

**KVY - 602 - Copper Harbor, Michigan**  
Lorain Electronics Corporation

Power 50 watts

**Notice to Mariners for Lake Superior**  
Freq: 156.8 mHz (Channel 16) for preliminary calling.  
161.825 mHz (Channel 84) for working.  
Time: Channel 84 - Immediately upon receipt.  
Channel 84 1/2 hour after first broadcast.

**KVY - 603 - Grand Marais, Michigan**  
Lorain Electronics Corporation

Power 50 watts

**Notice to Mariners for Lake Superior**  
Freq: 156.8 mHz (Channel 16) for preliminary calling.  
161.975 mHz (Channel 87) for working.  
Time: Channel 87 - Immediately upon receipt.  
Channel 87 1/2 hour after first broadcast.

**SCHEDULED MARINE INFORMATION BROADCASTS**

Station authorized regular Scheduled Marine Information Broadcasts transmit the indicated subjects for specified areas in Greenwich Mean Time (Z) as shown:

STATIONS	AREA	TYPE BCST	TIME (Z)	SUBJ. OF BCST'S			
				WX	SW	HD	NTM
Group Buffalo (NMD47)	Lake Erie & Ontario	Scheduled	Every three hours commencing 0255Z	X	X		X
		Safety	Upon receipt & One scheduled				X
		Urgent	Upon receipt, & scheduled until cancelled		X		
DOES NOT TRANSMIT on 2670 KHz between 0235Z thru 0855Z.							
Group Duluth (NPG 14)	Western Lake Superior	Scheduled	Every 3 hrs. commencing 0135Z	X	X		X
		Safety	Upon receipt & One scheduled				X
		Urgent	Upon receipt, & scheduled until cancelled				
Group Sault Ste. Marie (NOG)	Lakes Huron, Michigan & Superior	Scheduled	Every 3 hrs. commencing 0005Z	X	X	X	X
		Safety	Upon receipt & One scheduled			X	X
		Urgent	Upon receipt, & scheduled until cancelled				X
Stations authorized Scheduled Marine Information Broadcasts for purpose of repeating Safety and Urgent Information Broadcasts:							
Alexandria Bay (NMD 35)	St. Lawrence River	Safety	Upon receipt & repeated every 3 hrs. commencing at: 0235Z		X	X	
		Urgent	Upon receipt, & scheduled until cancelled				X
Group Detroit	Lakes St. Clair, Erie & Huron Rivers Detroit & St. Clair	Safety	Upon receipt & repeated at: 0155, 0455, 0755, 1055, 1355, 1655, 1955, 2255	X	X		X
		Urgent	Upon receipt and repeated at above times until cancelled.				
Group Muskegon (NMD 32)	Lake Michigan	Safety	Upon receipt & every 3 hrs., commencing 0235Z	X	X		
		Urgent	Upon receipt, & scheduled until cancelled.				
Group Milwaukee (NMP9)	Lake Michigan	Safety	Upon receipt & Every 3 hrs. * commencing 0255Z				
		Urgent	Upon receipt, and repeated at above times until canceled.				

NINTH COAST GUARD DISTRICT RADIO GUARDS

All Major Coast Guard Units are equipped to transmit and receive on Channel 16 (156.8 MHz) VHF-FM. A selected few are also capable of transmitting and receiving on Channel 51 (2182 KHz) AM. The following stations maintain a 24 hour a day radio guard as indicated. Those with the asterisk (\*) are seasonal stations only:

Area & Station	Channel Guard	Telephone No.
	16	
<b>ST. LAWRENCE RIVER &amp; SEAWAY</b>		
Alexandria Bay, N. Y. Station	X	482-2574/75
<b>LAKE ONTARIO</b>		
Buffalo, N. Y. Group Office	X	842-2195/96
Niagara, N. Y. Station		745-3327/28
Onwego, N. Y. Station	X	343-4551/52
Rochester, N. Y. Station	X	342-4140/49
<b>LAKE ERIE</b>		
Ashtabula, Ohio Station	X	964-9417/34
Buffalo, N. Y. Group Office	X	842-2195/96
Cleveland, Ohio Station	X	522-4412
Erie, Penn. Station	X	838-2097/98
Fairport, Ohio Station	X	352-3111/12
Lorain, Ohio Station	X	288-1206/07
Marblehead, Ohio Station	X	798-4444/45
Toledo, Ohio Station	X	259-6447/48
<b>LAKE HURON</b>		
Port Huron, Mi. Station	X	984-2602/03
Saginaw River, Mi. Station	X	684-3343/64
St. Ignace, Mi. Station	X	643-9191/92
Tawas, Mi. Station	X	362-4428/29
<b>DETROIT RIVER</b>		
Belle Isle, Mi. Station	X	331-3110
<b>ST. CLAIR RIVER AREA &amp; LAKE ST. CLAIR</b>		
Port Huron, Mi. Station	X	984-2602/03
St. Clair Flats, Mi. Station	X	748-9921/93

ST. MARYS RIVER

Sault Ste. Marie, Mi. Group Office	X	635-5241/43
*Sault Ste. Marie, Captain of the Port		635-5243/44
Guards Channel 12 (156.6 MHz)		

LAKE MICHIGAN

Calumet Harbor, Illinois Station	X	768-8000
Chawlevoix, Mi. Station	X	547-2541/65
Frankfort, Mi. Station	X	352-4242/9151
Grand Haven, Mi. Station	X	842-2510/11
*Green Bay, Wisconsin, SAR Detachment	X	435-7042
Holland, Mi. Station	X	335-5871/72
Kenosha, Wi. Station	X	657-7651
Ludington, Mi. Station	X	843-9088/2447
Michigan City, Ind. Station	X	879-8371/72
Milwaukee, Wi. Group Station	X	224-3167
Muskegon, Mi. Group Office	X	759-0951
Muskegon, Mi. Station	X	759-8581/82
*Plum Island Station	X	847-2521
St. Ignace, Mi. Station	X	643-9191/92
St. Joseph, Mi. Station	X	983-6114
Sheboygan, Wi. Station	X	452-5115/0346
Sturgeon Bay, Wi. Station	X	743-3366/67
Two Rivers, Wi. Station	X	793-1304/05
Wilmette Harbor, Ill. Station	X	251-0185

LAKE SUPERIOR

*Bayfield, Wi. Station	X	779-3950
Grand Marais, Mi. Station	X	494-2551
Marquette, Mi. Station	X	226-3312
Ninth Superior, Minnesota Station		387-2602
Sault Ste. Marie, Mi. Group Office	X	635-5241/43

\*Seasonal - Open during the navigational season only.

The Coast Guard is receiving many requests for channelization recommendations for new equipment. The channelization of equipment depends directly upon the type of operations of the vessel and the area of planned operation. The basic recommendation is for channels 6, 12, 16, and 22A. Additional channel recommendations should be obtained from local sources such as marine dealers, power squadrons, Coast Guard Auxiliary, marinas and other vessel operators.

Public Correspondence Stations. The following page is a listing of stations open for public correspondence taken from the "Marine Radiotelephone" handbook prepared by the Radio Technical Commission for Marine Services:

CALL SIGN	SERVICE AREA	VHF CHANNEL	LICENSEE	MARINE OPERATOR IDENTIFICATION	REGISTRATION INFORMATION	
<b>MINNESOTA</b>						
KVY-601	Duluth, Minn.	84	Lorain Electronics Corp.	Duluth Marine Opr.	(218) 525-5396	
<b>WISCONSIN</b>						
KVY-604	Sturgeon Bay, Wisc.	87	Lorain Electronics Corp.	Sturgeon Bay Marine Opr.	(414) 743-6097	
KVY-605	Port Washington, Wisc.	85	Lorain Electronics Corp.	Port Washington Marine Opr.	(414) 284-5597	
<b>ILLINOIS</b>						
KID-564	Waukegan, Ill.	84	Illinois Bell Telephone Co.	Waukegan Marine Opr.	(312) 727-5547	19/17
<b>INDIANA</b>						
KOU-578	Portage, Ind.	28	Burns Harbor Radio	(Call sign only)	(219) 762-1500 (219) 926-1211	
KLU-757	Michigan City, Ind.	28	Burns Harbor Radio	(Call sign only)	(219) 762-1500 (219) 926-1211	
<b>MICHIGAN</b>						
KIL-922	Ontonagon,	87	Lorain Electronics Corp.	(Lorain gateway OPR)	(906) 884-4776	
KVY-602	Copper Harbor Mich.	26 & 84	Lorain Electronics Corp.	Copper Harbor Marine Opr.	(906) 269-4501	
KVY-603	Grand Marais, Mich.	87	Lorain Electronics Corp.	Grand Marais Marine Opr.	(906) 494-2651	
KSK-283	St. Joseph, Mich.	24	Harbor Communications, Inc.	(Call sign only)	(616) 983-0517	
KOU-438	Saugatuck, Mich.	25	Saugatuck Radio	(Call sign only)	(616) 857-4209	
KOU-546	Muskegon Hts., Mich.	26	Waldo I. Wilson	(Call sign only)	(616) 733-2007	
WLC	Charlevoix, Mich.	26	Central Radio Telegraph Co.	Charlevoix Marine Opr.	(517) 734-2146	
KOB-667	Sault Ste. Marie, Mich.	26	Michigan Bell Telephone Co.	Sault Ste. Marie Marine Opr.	(313) 569-4880	
WLC	Rogers City, Mich.	26 & 28	Central Radio Telegraph Co.	Rogers City Marine Opr.	(517) 734-2146	
WLC	Tawas City, Mich.	26	Central Radio Telegraph Co.	Tawas City Marine Opr.	(517) 734-2146	
KOF-718	Bay City, Mich.	28	King Communications Inc.	(Call sign only)	(517) 893-4531	
KOB-666	Detroit, Mich.	26	Michigan Bell Telephone Co.	Detroit Marine Opr.	(313) 569-4880	
KAD-806	Bolles Harbor, Mich.	25	Toledo Marine Telephone Co.	(Call sign only)	(313) 241-5202	
KAD-836	Marysville, Mich.	25	Michigan Bell Telephone Co.	Port Huron Marine Opr.	(313) 569-4880	
<b>OHIO</b>						
WMI	Lorain, Ohio	26 & 27	Lorain Electronics Corp.	Lorain Marine Opr.	(216) 282-8030	21/15
KOU-440	Cleveland, Ohio	28	Lorain Electronics Corp.	(Call sign only)	(216) 282-8030	
KOB-668	Geneva, Ohio	26	Western Reserve Telephone Co.	Geneva Marine Opr.	(216) 998-5151	
<b>PENNSYLVANIA</b>						
KLU-745	Erie, Pa.	25	Professional Communications Inc.	(Call sign only)	(814) 455-8014	
<b>NEW YORK</b>						
KLU-788	Rochester, N.Y.	25	Tel-Page Corporation	Rochester Channel 25	(914) 831-4290	

Conversion Table for Nautical and Statute Miles

1 nautical mile=6,076.11548 . . . feet

1 statute mile=5,280 feet

Nautical miles to statute miles				Statute miles to nautical miles			
Nautical miles	Statute miles	Nautical miles	Statute miles	Statute miles	Nautical miles	Statute miles	Nautical miles
1	1.151	51	58.690	1	0.869	51	44.318
2	2.302	52	59.841	2	1.738	52	45.187
3	3.452	53	60.991	3	2.607	53	46.056
4	4.603	54	62.142	4	3.476	54	46.925
5	5.754	55	63.293	5	4.345	55	47.794
6	6.905	56	64.444	6	5.214	56	48.663
7	8.055	57	65.594	7	6.083	57	49.532
8	9.206	58	66.745	8	6.952	58	50.401
9	10.357	59	67.896	9	7.821	59	51.270
10	11.508	60	69.047	10	8.690	60	52.139
11	12.659	61	70.198	11	9.559	61	53.008
12	13.809	62	71.348	12	10.428	62	53.877
13	14.960	63	72.499	13	11.297	63	54.746
14	16.111	64	73.650	14	12.166	64	55.614
15	17.262	65	74.801	15	13.035	65	56.483
16	18.412	66	75.951	16	13.904	66	57.352
17	19.563	67	77.102	17	14.773	67	58.221
18	20.714	68	78.253	18	15.642	68	59.090
19	21.865	69	79.404	19	16.511	69	59.959
20	23.016	70	80.555	20	17.380	70	60.828
21	24.166	71	81.705	21	18.249	71	61.697
22	25.317	72	82.856	22	19.117	72	62.566
23	26.468	73	84.007	23	19.986	73	63.435
24	27.619	74	85.158	24	20.855	74	64.304
25	28.769	75	86.308	25	21.724	75	65.173
26	29.920	76	87.459	26	22.593	76	66.042
27	31.071	77	88.610	27	23.462	77	66.911
28	32.222	78	89.761	28	24.331	78	67.780
29	33.373	79	90.912	29	25.200	79	68.649
30	34.523	80	92.062	30	26.069	80	69.518
31	35.674	81	93.213	31	26.938	81	70.387
32	36.825	82	94.364	32	27.807	82	71.256
33	37.976	83	95.515	33	28.676	83	72.125
34	39.127	84	96.665	34	29.545	84	72.994
35	40.277	85	97.816	35	30.414	85	73.863
36	41.428	86	98.967	36	31.283	86	74.732
37	42.579	87	100.118	37	32.152	87	75.601
38	43.730	88	101.269	38	33.021	88	76.470
39	44.880	89	102.419	39	33.890	89	77.339
40	46.031	90	103.570	40	34.759	90	78.208
41	47.182	91	104.721	41	35.628	91	79.077
42	48.333	92	105.872	42	36.497	92	79.946
43	49.484	93	107.022	43	37.366	93	80.815
44	50.634	94	108.173	44	38.235	94	81.684
45	51.785	95	109.324	45	39.104	95	82.553
46	52.936	96	110.475	46	39.973	96	83.422
47	54.087	97	111.626	47	40.842	97	84.291
48	55.237	98	112.776	48	41.711	98	85.160
49	56.388	99	113.927	49	42.580	99	86.029
50	57.539	100	115.078	50	43.449	100	86.898

Conversion Table for Meters, Feet, and Fathoms

Meters	Feet	Fathoms	Meters	Feet	Fathoms	Feet	Meters	Feet	Meters	Fathoms	Meters	Fathoms	Meters
1	3.28	0.55	61	200.13	33.36	1	0.30	61	18.59	1	1.83	61	111.56
2	6.56	1.09	62	203.41	33.90	2	0.61	62	18.90	2	3.66	62	113.39
3	9.84	1.64	63	206.69	34.45	3	0.91	63	19.20	3	5.49	63	115.21
4	13.12	2.19	64	209.97	35.00	4	1.22	64	19.51	4	7.32	64	117.04
5	16.40	2.73	65	213.25	35.54	5	1.52	65	19.81	5	9.14	65	118.87
6	19.69	3.28	66	216.54	36.09	6	1.83	66	20.12	6	10.97	66	120.70
7	22.97	3.83	67	219.82	36.64	7	2.13	67	20.42	7	12.80	67	122.53
8	26.25	4.37	68	223.10	37.18	8	2.44	68	20.73	8	14.63	68	124.36
9	29.53	4.92	69	226.38	37.73	9	2.74	69	21.03	9	16.46	69	126.19
10	32.81	5.47	70	229.66	38.28	10	3.05	70	21.34	10	18.29	70	128.02
11	36.09	6.01	71	232.94	38.82	11	3.35	71	21.64	11	20.12	71	129.84
12	39.37	6.56	72	236.22	39.37	12	3.66	72	21.95	12	21.95	72	131.67
13	42.65	7.11	73	239.50	39.92	13	3.96	73	22.25	13	23.77	73	133.50
14	45.93	7.66	74	242.78	40.46	14	4.27	74	22.56	14	25.60	74	135.33
15	49.21	8.20	75	246.06	41.01	15	4.57	75	22.86	15	27.43	75	137.16
16	52.49	8.75	76	249.34	41.56	16	4.88	76	23.16	16	29.26	76	138.99
17	55.77	9.30	77	252.62	42.10	17	5.18	77	23.47	17	31.09	77	140.82
18	59.06	9.84	78	255.91	42.65	18	5.49	78	23.77	18	32.92	78	142.65
19	62.34	10.39	79	259.19	43.20	19	5.79	79	24.08	19	34.75	79	144.48
20	65.62	10.94	80	262.47	43.74	20	6.10	80	24.38	20	36.58	80	146.30
21	68.90	11.48	81	265.75	44.29	21	6.40	81	24.69	21	38.40	81	148.13
22	72.18	12.03	82	269.03	44.84	22	6.71	82	24.99	22	40.23	82	149.96
23	75.46	12.58	83	272.31	45.38	23	7.01	83	25.30	23	42.06	83	151.79
24	78.74	13.12	84	275.59	45.93	24	7.32	84	25.60	24	43.89	84	153.62
25	82.02	13.67	85	278.87	46.48	25	7.62	85	25.91	25	45.72	85	155.45
26	85.30	14.22	86	282.15	47.03	26	7.92	86	26.21	26	47.55	86	157.28
27	88.58	14.76	87	285.43	47.57	27	8.23	87	26.52	27	49.38	87	159.11
28	91.86	15.31	88	288.71	48.12	28	8.53	88	26.82	28	51.21	88	160.93
29	95.14	15.86	89	291.99	48.67	29	8.84	89	27.13	29	53.04	89	162.76
30	98.43	16.40	90	295.28	49.21	30	9.14	90	27.43	30	54.86	90	164.59
31	101.71	16.95	91	298.56	49.76	31	9.45	91	27.74	31	56.69	91	166.42
32	104.99	17.50	92	301.84	50.31	32	9.75	92	28.04	32	58.52	92	168.25
33	108.27	18.04	93	305.12	50.85	33	10.06	93	28.35	33	60.35	93	170.08
34	111.55	18.59	94	308.40	51.40	34	10.36	94	28.65	34	62.18	94	171.91
35	114.83	19.14	95	311.68	51.95	35	10.67	95	28.96	35	64.01	95	173.74
36	118.11	19.69	96	314.96	52.49	36	10.97	96	29.26	36	65.84	96	175.56
37	121.39	20.23	97	318.24	53.04	37	11.28	97	29.57	37	67.67	97	177.39
38	124.67	20.78	98	321.52	53.59	38	11.58	98	29.87	38	69.49	98	179.22
39	127.95	21.33	99	324.80	54.13	39	11.89	99	30.18	39	71.32	99	181.05
40	131.23	21.87	100	328.08	54.68	40	12.19	100	30.48	40	73.15	100	182.88
41	134.51	22.42	101	331.36	55.23	41	12.50	101	30.78	41	74.98	101	184.71
42	137.79	22.97	102	334.65	55.77	42	12.80	102	31.09	42	76.81	102	186.54
43	141.07	23.51	103	337.93	56.32	43	13.11	103	31.39	43	78.64	103	188.37
44	144.35	24.06	104	341.21	56.87	44	13.41	104	31.70	44	80.47	104	190.20
45	147.63	24.61	105	344.49	57.41	45	13.72	105	32.00	45	82.30	105	192.02
46	150.91	25.15	106	347.77	57.96	46	14.02	106	32.31	46	84.12	106	193.85
47	154.19	25.70	107	351.05	58.51	47	14.33	107	32.61	47	85.95	107	195.68
48	157.47	26.25	108	354.33	59.06	48	14.63	108	32.92	48	87.78	108	197.51
49	160.75	26.79	109	357.61	59.60	49	14.94	109	33.22	49	89.61	109	199.34
50	164.03	27.34	110	360.89	60.15	50	15.24	110	33.53	50	91.44	110	201.17
51	167.31	27.89	111	364.17	60.70	51	15.54	111	33.83	51	93.27	111	203.00
52	170.59	28.43	112	367.45	61.24	52	15.85	112	34.14	52	95.10	112	204.83
53	173.87	28.98	113	370.73	61.79	53	16.15	113	34.44	53	96.93	113	206.66
54	177.15	29.53	114	374.01	62.34	54	16.46	114	34.75	54	98.76	114	208.48
55	180.43	30.07	115	377.29	62.88	55	16.76	115	35.05	55	100.58	115	210.31
56	183.71	30.62	116	380.57	63.43	56	17.07	116	35.36	56	102.41	116	212.14
57	186.99	31.17	117	383.85	63.98	57	17.37	117	35.66	57	104.24	117	213.97
58	190.27	31.71	118	387.13	64.52	58	17.68	118	35.97	58	106.07	118	215.80
59	193.55	32.26	119	390.41	65.07	59	17.98	119	36.27	59	107.90	119	217.63
60	196.83	32.81	120	393.69	65.62	60	18.29	120	36.58	60	109.73	120	219.46

ST. REGIS ISLAND TO CROIL  
ISLANDS

## ST. LAWRENCE RIVER, NEW YORK

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water	(6) Structure Daymark	(7) Remarks Year
(Chart 14761)		Aids listed S. L. S. Corp. are private aids to navigation maintained from Apr. 1 to Dec. 15 by the St. Lawrence Seaway Development Corporation.				
<b>St. Lawrence Seaway</b>						
1	—Lighted Buoy 1 Fl. G., 4 <sup>s</sup>	In 30 feet 45 00.2 74 40.1			Black	Ra ref. S. L. S. Corp.
2	—LIGHT 2 Qk. Fl. R.	On Cornwall Island. C. 45 00.2 74 40.5		40	White circular tower, red top 23	
3	—Lighted Buoy 3 Qk. Fl. G.	In 27 feet			Black	Ra ref. S. L. S. Corp.
4	—LIGHT 4 Fl. R.	On Cornwall Island C. 45 00.1 74 41.0		40	White circular tower, red top 23	
5	—Lighted Buoy 5 Fl. G., 4 <sup>s</sup>	In 35 feet			Black	Ra ref. S. L. S. Corp.
6	—Lighted Buoy 5A Fl. G., 4 <sup>s</sup>				Black	Ra ref. S. L. S. Corp.
7	—Lighted Buoy 5B Fl. G., 4 <sup>s</sup>	In 27 feet			Black	Ra ref. S. L. S. Corp.
8	—Lighted Buoy 6 Fl. R., 4 <sup>s</sup>	In 35 feet			Red	Ra ref. S. L. S. Corp.
9	—Lighted Buoy 6A Fl. R., 4 <sup>s</sup>	In 27 feet			Red	Ra ref. S. L. S. Corp.
10	—Lighted Buoy 7 Fl. W., 4 <sup>s</sup>	In 28 feet			Black	Ra ref. S. L. S. Corp.
11	—Lighted Buoy 8 Fl. R., 4 <sup>s</sup>				Red	Ra ref. S. L. S. Corp.
12	—Lighted Buoy 9 Fl. G., 4 <sup>s</sup>	In 40 feet			Black	Ra ref. S. L. S. Corp.
13	—DIRECTIONAL LIGHT 10 F. R., W., G. sectors	On Cornwall Island. C. 45 00.1 74 42.8		43	Skeleton tower on pile crib	Red from 272° to 277°08' white from 277°08' to 278°52'; green from 278°52' to 284°. White sector indicates pre- ferred channel. A white light visible from 290° to 000° with increased intensity on bearing 048°; on the same structure.
14	—LIGHT 11 Fl. G., 2.5 <sup>s</sup>	On shore 44 59.8 74 43.1		28	White square daymark with black border, white pile.	S. L. S. Corp. 1958
15	—LIGHT 13 Fl. G., 4 <sup>s</sup>	On shore 44 59.6 74 43.4		28	White square daymark with black border, white pile.	S. L. S. Corp. 1958
17	—Lighted Buoy 14A Fl. R., 4 <sup>s</sup>	In 27 feet			Red	Ra ref. S. L. S. Corp.
18	—Lighted Buoy 15 Qk. Fl. G. Aluminum Foundry Water Intake Buoy 1.	In 27 feet 44 59.3 74 44.0 In 6 feet			Black spar	Private aid maintained from May 1 to Dec. 1. Ra ref. S. L. S. Corp.
19	—Lighted Buoy 16 Fl. R., 4 <sup>s</sup>	In 35 feet			Red	Ra ref. S. L. S. Corp.
20	—Lighted Buoy 17 Fl. G., 4 <sup>s</sup>	In 28 feet			Black	Ra ref. S. L. S. Corp.
21	POLLY'S GUT TRAINING DIKE EAST END LIGHT "A". Qk. Fl. R.	On east end of Training Dike.		15	White pile	S. L. S. Corp. 1958
22	POLLY'S GUT TRAINING DIKE WEST END LIGHT "B". Qk. Fl. R.	On west end of Train- ing Dike.		15	White pile	S. L. S. Corp. 1958
23	POLLY'S GUT TRAINING DIKE A LIGHT C. Qk. Fl. R.	On end of Training Dike "A". 44 59.5 74 45.8		15	White pile	S. L. S. Corp. 1963

ST. REGIS ISLAND TO CROIL  
ISLANDS

## ST. LAWRENCE RIVER, NEW YORK

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water	(6) Structure Ht. above ground Daymark	(7) Remarks Year
<b>St. Lawrence Seaway</b>						
	—Buoy 18 .....	In 27 feet .....			Red nun .....	Ra ref. Red reflector. S. L. S. Corp.
25	Buoy 19 .....	In 27 feet .....			Black can .....	Ra ref. S. L. S. Corp.
H2620	— LIGHT 20 F. R.	On outer northeast guidewall of Bertrand H. Snell Lock.		28	White triangular daymark with red border, white pile.	Higher intensity beam on bearing 268° diminishing around remainder of horizon. S. L. S. Corp. 1958
26	LIGHT 21 .....	On outer southeast guidewall of Bertrand H. Snell Lock.		28	White square daymark with black border, white pile.	Higher intensity beam on bearing 255° diminishing around remainder of horizon. S. L. S. Corp. 1958
H2621	F. G.					
27	— LIGHT 23 .....	On inner southwest guidewall of Bertrand H. Snell Lock.		28	White square daymark with black border, white pile.	Higher intensity beam on bearing 077° diminishing around remainder of horizon. S. L. S. Corp. 1958
H2622	F. G.					
28	— LIGHT 24 .....	On inner northwest guidewall of Bertrand H. Snell Lock.		28	White triangular daymark with red border, white pile.	Higher intensity beam on bearing 073° diminishing around remainder of horizon. S. L. S. Corp. 1958
H2623	F. R.					
	—Buoy 24A .....	In 27 feet .....			Red nun .....	Ra ref. Red reflector. S. L. S. Corp.
29	— LIGHT 25 .....	In 15 feet, about 50 feet outside channel limit.		28	White square daymark with black border, white pile.	S. L. S. Corp. 1958
H2624	Fl. G., 2.5 <sup>s</sup>					
30	— Lighted Buoy 26 .....	In 27 feet .....			Red .....	Ra ref. S. L. S. Corp.
	Fl. R., 4 <sup>s</sup>					
31	MOORING CELLS LIGHT "A" ...	On eastern end of mooring cells.				S. L. S. Corp. 1958
H2626	Qk. Fl. W.					
32	MOORING CELLS LIGHT "B" ...	On western end of mooring cells.				S. L. S. Corp. 1958
H2626.2	Qk. Fl. W.					
33	— LIGHT 28 .....	In 8 feet, about 63 feet outside channel limit.		28	White triangular daymark with red border, white pile.	S. L. S. Corp. 1958
H2628	Fl. R., 4 <sup>s</sup>					
34	— LIGHT 29 .....	In 10 feet, about 73 feet outside channel limit.		28	White square daymark with black border, white pile.	S. L. S. Corp. 1958
H2629	Fl. G., 4 <sup>s</sup>					
35	— LIGHT 30 .....	In 6 feet, about 50 feet outside channel limit.		28	White triangular daymark with red border, white pile.	S. L. S. Corp. 1958
H2630	Fl. R., 2.5 <sup>s</sup>					
36	— LIGHT 31 .....	On eastern end of mooring cells.		28	White square daymark with black border, white pile.	S. L. S. Corp. 1958
H2631	Fl. G., 2.5 <sup>s</sup>					
37	MOORING CELLS LIGHT "C" ...	On western end of mooring cells.				S. L. S. Corp. 1958
H2631.2	Qk. Fl. W.					
38	— Lighted Buoy 32 .....	In 27 feet .....			Red .....	Ra ref. S. L. S. Corp.
	Fl. R., 4 <sup>s</sup>					
	—Buoy 32A .....	In 27 feet .....			Red nun .....	Ra ref. Red reflector. S. L. S. Corp.
	—Buoy 33 .....	In 27 feet .....			Black can .....	Ra ref. White reflector. S. L. S. Corp.
39	— LIGHT 34 .....	On inner northeast guidewall of Eisen- hower Lock.		28	White triangular daymark with red border, white pile.	Higher intensity beam on bearing 261° diminishing around remainder of horizon. S. L. S. Corp. 1958
H2634	F. R.	44 58.9 74 50.5				
40	— LIGHT 35 .....	On inner southeast guidewall of Eisen- hower Lock.		28	White square daymark with black border, white pile.	Higher intensity beam on bearing 252° diminishing around remainder of horizon. S. L. S. Corp. 1958
H2635	F. G.			28		

ST. REGIS ISLAND TO CROIL  
ISLANDS

## ST. LAWRENCE RIVER, NEW YORK

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.		(4) Nominal Range	(5) Ht. above water Ht. above ground	(6) Structure	(7) Daymark Remarks Year
<b>St. Lawrence Seaway</b>							
41 H2637	— LIGHT 37 F. G.	On outer southwest guidewall of Eisen- hower Lock.			28	White square daymark with black border, white pile.	Higher intensity beam on bearing 079° diminishing around remainder of horizon. S. L. S. Corp. 1958
42 H2638	— LIGHT 38 F. R.	On outer end of north- west guidewall of Eisenhower Lock.			28	White triangular daymark with red border, white pile.	Higher intensity beam on bearing 069° diminishing around remainder of horizon. S. S. S. Corp. 1958
	— Buoy 38A	In 27 feet				Red nun	Ra ref. Red reflector. S. L. S. Corp.
43	— Lighted Buoy 39 Fl. G., 4 <sup>s</sup>	In 27 feet				Black	Ra ref. White reflector. S. L. S. Corp.
44	— Lighted Buoy 40 Fl. R., 4 <sup>s</sup>	In 27 feet				Red	Ra ref. S. L. S. Corp.
45 H2642	MOORING CELLS LIGHT "D" Qk. Fl. W.	On eastern end of mooring cells.					S. L. S. Corp. 1958
46 H2643	— LIGHT 41 Fl. G., 2.5 <sup>s</sup>	On western end of mooring cells.			28	White square daymark with black border, white pile.	S. L. S. Corp. 1958
47 H2644	— LIGHT 42 Fl. R., 2.5 <sup>s</sup>	In 8 feet, about 55 feet outside channel limit.			28	White triangular daymark with red border, white pile.	S. L. S. Corp. 1958
H2644	Fl. R., 2.5 <sup>s</sup>	feet outside channel limit.				border, white pile.	
48 H2645	— LIGHT 43 Fl. G., 4 <sup>s</sup>	On shore, about 15 feet outside channel limit.			28	White square daymark with black border, white pile.	S. L. S. Corp. 1958
49 H2646	— LIGHT 44 Fl. R., 4 <sup>s</sup>	On shore, about 75 feet outside channel limit.			28	White triangular daymark with red border, white pile.	S. L. S. Corp. 1958
50 H2648	— LIGHT 45 Fl. G., 2.5 <sup>s</sup>	On shore, about 75 feet outside channel limit.			28	White square daymark with black border, white pile.	S. L. S. Corp. 1958
51 H2649	— LIGHT 46 Fl. R., 2.5 <sup>s</sup>	On shore, about 75 feet outside channel limit.			28	White triangular daymark with red border, white pile.	S. L. S. Corp. 1958
52 H2652	— LIGHT 47 Fl. G., 4 <sup>s</sup>	In 6 feet, about 67 feet outside channel limit.			23	White square daymark with black border, white pile.	S. L. S. Corp. 1958
53 H2653	— LIGHT 48 Fl. R., 4 <sup>s</sup>	On Sault Island, about 75 feet outside of channel limit.			28	White triangular daymark with red border, white pile.	S. L. S. Corp. 1958
54	— Lighted Buoy 49 Fl. G., 4 <sup>s</sup>	In 45 feet				Black	Ra ref. Spar; winter marker. S. L. S. Corp.
55	— Lighted Buoy 50 Fl. R., 4 <sup>s</sup>	In 50 feet				Red	Ra ref. Spar; winter marker. S. L. S. Corp.
<b>CROIL ISLAND TO LEISHMAN POINT</b>							
<b>St. Lawrence Seaway (Chart 14762)</b>							
56	— Lighted Buoy 51 Fl. G., 4 <sup>s</sup>	In 40 feet				Black	
	— Buoy 52	In 45 feet				Red nun	Ra ref. Red reflector. S. L. S. Corp.
57 H2661	— LIGHT 54 Fl. R., 2.5 <sup>s</sup>	In 12 feet, about 45 feet outside of channel limit.			28	White triangular daymark with red border, white pile.	S. L. S. Corp. 1958-1962

CROIL ISLANDS TO LEISHMAN  
POINT

ST. LAWRENCE RIVER, NEW YORK

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.		(4) Nominal Range	(5) Ht. above water	(6) Structure Ht. above ground Daymark	(7) Remarks Year
<b>St. Lawrence Seaway</b>							
58 H2662	—LIGHT 55 Fl. G., 2.5 <sup>s</sup>	In 5 feet off Richards Point about 60 feet outside of channel limit.			28	White square daymark with black border, white pile.	Higher intensity beam on bearing 076° diminishing around remainder of horizon. S. L. S. Corp. 1958-1964
	—Buoy 56	44 57.5	74 58.1			Red nun	Ra ref. Red reflector. S. L. S. Corp. 1958-1962
59 H2664	—LIGHT 57 Qk. Fl. W.	In 14 feet, about 100 feet outside channel limit.			28	White square daymark with black border, white pile.	S. L. S. Corp. 1958-1962
60 H2665	—LIGHT 58 Fl. R., 4 <sup>s</sup>	In 18 feet, off end of Cat Island, about 140 feet outside channel limit.			28	White triangular daymark with red border, white pile.	S. L. S. Corp. 1958-1962
60.50	CAT ISLAND LEADING LIGHT F. W.	In 9 feet 44 57.2		75 00.4		Orange triangular daymark with black vertical stripe on square tower.	Visible 4° each side of bearing 257° 25'. S. L. S. Corp. 1973
61	—Lighted Buoy 60 Fl. R., 4 <sup>s</sup>	In 30 feet, marks shoal southwest of Cat Island.				Red	Ra ref. Spar; winter marker. S. L. S. Corp.
	—Buoy 61	In 25 feet				Black can	Ra ref. White reflector. S. L. S. Corp.
62	WILSON HILL RANGE FRONT LIGHT. F. G.	44 57.1	74 59.7		28	Orange triangular daymark with black vertical stripe on orange square steel tower.	Maintained from Apr. 1 to Dec. 15. S. L. S. Corp. 1969
63	WILSON HILL RANGE REAR LIGHT. F. G.	1,500 feet, 068.7° from front light.			58	Orange triangular daymark with black vertical stripe on orange square steel tower.	Maintained from Apr. 1 to Dec. 15. S. L. S. Corp.
64	Steen Shoal Lighted Buoy Fl. R.	In 30 feet, marks south edge of shoal.				Red	
65 H2667	—LIGHT 63 Fl. G., 2.5 <sup>s</sup>	In 16 feet, about 80 feet outside channel limit.			23	White square daymark with black border, white pile.	S. L. S. Corp. 1958
66	Weaver Shoal Anchorage Area "E" Lighted Buoy. Fl. W.	44 56.7	75 02.7	C.		White	
67	Weaver Shoal Anchorage Area "W" Lighted Buoy. Fl. W.	44 56.5	75 03.4	C.		White	
68	—Lighted Buoy 67 Fl. G., 4 <sup>s</sup>	In 35 feet				Black	Ra ref. Spar; winter marker. S. L. S. Corp.
69 H2670	—LIGHT 68 Qk. Fl. R.	44 55.9	75 04.2	C.	29	White circular tower, red top	
70 H2671	—LIGHT 70 Fl. R., 4 <sup>s</sup>	Off Cooks Point		C.	29	White circular tower, red top	
71 H2672	—LIGHT 71 Fl. G., 4 <sup>s</sup>	On Bradford Point			23	White square daymark with black border, white pile.	S. L. S. Corp. 1958-1962
	—Buoy 71A	In 35 feet				Black can	Ra ref. White reflector. S. L. S. Corp.
72	—Lighted Buoy 72 Qk. Fl. R.	In 35 feet		C.		Red	Ra ref.
73	—Lighted Buoy 73 Fl. W., 4 <sup>s</sup>	In 35 feet				Black	Ra ref. S. L. S. Corp.
74	—Lighted Buoy 74 Fl. R.	44 55.4	75 06.6	C.		Red	Ra ref.
75 H2679	DORAN SHOAL RANGE FRONT LIGHT. F. Y.	44 56.0	75 06.8	C.	33	Orange triangular daymark with black vertical stripe on skele- ton tower.	
76 H2679.1	DORAN SHOAL RANGE REAR LIGHT. F. Y.	1,225 feet 040°10' from front light.		C.	56	Orange triangular daymark with black vertical stripe on skele- ton tower.	

CROIL ISLANDS TO LEISHMAN  
POINT

ST. LAWRENCE RIVER, CANADA AND NEW YORK

(1)	(2)	(3)		(4)	(5)	(6)	(7)			
No.	Name	Lat. N.	Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure	Daymark	Remarks	Year
<b>St. Lawrence Seaway</b>										
77 N2675	-- LIGHT 75 Fl. G., 4 <sup>s</sup>	In 14 feet, about 70 feet outside channel limit.			30		White square daymark with black border, on square skeleton tower.		S. L. S. Corp.	1958-1977
78	-- Lighted Buoy 77 Fl. G., 4 <sup>s</sup>	In 45 feet					Black		Ra ref. Spar; winter marker. S. L. S. Corp.	
79 N2669	WEAVER SHOAL RANGE FRONT LIGHT. F. W.	44 55.5	75 07.9	C.		33	White triangular daymark with black vertical stripe on skeleton tower.			
80 N2669.1	WEAVER SHOAL RANGE REAR LIGHT. F. W.	1,520 feet 262'15' from front light.	C.			56	White triangular daymark with black vertical stripe on skeleton tower.			
81	-- Lighted Buoy 78 Qk. Fl. R.	In 55 feet, marks turn in channel.	C.				Red		Ra ref.	
82 N2677	-- LIGHT 79 Qk. Fl. W.	In 14 feet, about 70 feet outside of channel limit.				30	White square daymark with black border, on square skeleton tower.		S. L. S. Corp.	1958-1977
83 N2674.4	GOOSE NECK ISLAND SHOALS RANGE FRONT LIGHT. F. R.	44 54.9	75 08.8	C.		33	Orange triangular daymark with black vertical stripe on skeleton tower.			
84 N2674.11	GOOSE NECK ISLAND SHOALS RANGE REAR LIGHT. F. R.	470 feet 255' from front light.	C.			45	Orange triangular daymark with black vertical stripe on skeleton tower.			
85	-- Lighted Buoy 80 Fl. R.	In 45 feet	C.				Red		Ra ref.	
86	-- LIGHT 81 Qk. Fl. G.	On Doran Shoal	C.	44 54.0	75 09.0		White circular tower, Black band at top.			
87 N2681	-- LIGHT 82 Fl. R., 4 <sup>s</sup>	Off Doran Point	C.			29	White circular tower, red top	23		
88	-- Lighted Buoy 84 Fl. R.	In 29 feet	C.				Red		Ra ref.	
89	Canada Island Anchorage Area "E" Lighted Buoy. Fl. W.	44 53.8	75 09.8	C.			White			
90 N2684	-- LIGHT 85 Fl. G., 2.5 <sup>s</sup>	In 5 feet, off northside of Murphy Island, about 80 feet outside channel limit.				23	White square daymark with black border, white pile.		S. L. S. Corp.	1958
91	-- Lighted Buoy 86 Fl. R.	44 53.2	75 11.0	C.			Red		Ra ref.	
92	Canada Island Anchorage Area N Lighted Buoy. Fl. W.	44 53.6	75 10.5	C.			White			
93	-- Lighted Buoy 87 Fl. G., 4 <sup>s</sup>	In 30 feet					Black		Ra ref. Spar; winter marker. S. L. S. Corp.	
	Canada Island Anchorage area Buoy.			C.			White spar			
	Waddington Harbor Buoy 2	In 24 feet, off north-east end of Clark Island Shoal.					Red nun		Ra ref. Red reflector.	
	Waddington Harbor Buoy 4	In 22 feet, off south-east end of Clark Island Shoal.					Red nun		Ra ref. Red reflector.	
94	-- Lighted Buoy 88 Fl. R., 4 <sup>s</sup>	44 53.1	75 11.4	C.			Red		Ra ref.	
95	-- Lighted Buoy 89 Fl. G., 4 <sup>s</sup>	In 28 feet					Black		Ra ref. S. L. S. Corp.	
96	ODGEN ISLAND RANGE FRONT LIGHT. F. G.	44 52.8	75 11.7			28	Orange triangular daymark with black vertical stripe on orange steel square tower.		S. L. S. Corp.	1969
97	ODGEN ISLAND RANGE REAR LIGHT. F. G.	950 feet 237.3' from front light.				52	Orange triangular daymark with black vertical stripe on orange steel square tower.		S. L. S. Corp.	1969

CROIL ISLANDS TO LEISHMAN  
POINT

## ST. LAWRENCE RIVER, CANADA AND NEW YORK

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water	(6) Structure Ht. above ground Daymark	(7) Remarks Year
<b>St. Lawrence Seaway</b>						
98	— Lighted Buoy 91 Fl. G., 4 <sup>s</sup>	In 35 feet, off eastern end of Ogden Island.			Black	Ra ref. Spar; winter marker, S. L. S. Corp.
99 N2692	— LIGHT 92 Fl. R., 4 <sup>s</sup>	At Maritown 44 52.9 75 12.2	C.	28	White circular tower, red top	
100 N2693	MARIATOWN RANGE FRONT LIGHT. F. G.	44 53.0 75 12.6	C.	33	Orange triangular daymark with black vertical stripe on skeleton tower.	
101 N2693.1	MARIATOWN RANGE REAR LIGHT. F. G.	443 feet 057' from front light. C.		47	Orange triangular daymark with black vertical stripe on skeleton tower.	
101.50	— Lighted Buoy 92A Fl. R.	Off Mariatown 44 52.8 75 12.6	C.		Red	Ra ref.
102	— Lighted Buoy 93 Fl. G., 4 <sup>s</sup>	In 27 feet, off Ogden Island.			Black	Ra ref. Spar; winter marker S. L. S. Corp.
103	— Lighted Buoy 94 Ok. Fl. R.	In 37 feet, Ogden Island Reach. C.			Red	Ra ref.
104	— Lighted Buoy 95 Fl. G.	Ogden Island Reach C. 44 52.6 75 13.4			Black	Ra ref.
105 N2695	— LIGHT 96 Fl. R., 4 <sup>s</sup>	On shore	C.	27	White circular tower, red top 23	
106 N2694	MARIATOWN APPROACH RANGE FRONT LIGHT. F. W.	44 52.6 75 13.7	C.	38	Orange triangular daymark with black vertical stripe on skeleton tower.	
107 N2694.1	MARIATOWN APPROACH RANGE REAR LIGHT. F. W.	500 feet 255'25' from front light. C.		53	Orange triangular daymark with black vertical stripe on skeleton tower.	
108	— Lighted Buoy 96A Fl. R.	44 52.3 75 14.0	C.		Red	Ra ref.
109	— Lighted Buoy 98 Fl. R.	In 53 feet off Robert- son Point. C.			Red	Ra ref.
110	— Lighted Buoy 99 Fl. G., 4 <sup>s</sup>	In 35 feet			Black	Ra ref. Spar; winter marker, S. L. S. Corp.
<b>LEISHMAN POINT TO OGDENSBURG</b>						
<b>St. Lawrence Seaway (Chart 14763)</b>						
111	— Lighted Buoy 100 Fl. R.	In 63 feet	C.		Red	Ra ref.
112	— Lighted Buoy 101 Fl. G., 4 <sup>s</sup>	In 47 feet, marks out- side limit of shoal.			Black	Ra ref. S. L. S. Corp.
113	— Lighted Buoy 102 Fl. R.	In 30 feet 44 51.5 75 15.7	C.		Red	Ra ref.
114	— Lighted Buoy 103 Fl. G., 4 <sup>s</sup>	In 27 feet			Black	Ra ref. Spar; winter marker. S. L. S. Corp.
115	— Lighted Buoy 104 Ok. Fl. R.	44 51.3 75 16.4	C.		Red	Ra ref.
116	— Lighted Buoy 105 Fl. G., 4 <sup>s</sup>	In 42 feet			Black	Ra ref. Spar; winter marker. S. L. S. Corp.
117	— Lighted Buoy 106 Fl. R.	Marks 29 foot spot. 44 50.9 75 17.5	C.		Red	Ra ref.
118 N2704	— LIGHT 107 Fl. G., 4 <sup>s</sup>	On Rockway Point		28	White square daymark with black border, white pile.	S. L. S. Corp. 1958
119 N2706	— Lighted Buoy 107A Fl. G.	In 40 feet	C.		Black, boat type	
120 N2706	IROQUOIS LOCK RANGE FRONT LIGHT. F. W.	44 50.7 75 18.2	C.	33	Orange triangular daymark with black vertical stripe on skeleton tower.	
121 N2706.1	IROQUOIS LOCK RANGE REAR LIGHT. F. W.	746 feet, 026'15' from front light. C.		44	Orange triangular daymark with black vertical stripe on skeleton tower.	

LEISHMAN POINT TO  
OGDENSBURG

## ST. LAWRENCE RIVER, CANADA AND NEW YORK

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water ground	(6) Structure Daymark	(7) Remarks Year
<b>St. Lawrence Seaway</b>						
122	—Lighted Buoy 108 Qk. Fl. R.	In 27 feet	C.		Red	Ra ref.
123	—Lighted Buoy 108A Fl. R.	44 50.4 75 18.6	C.		Red, boat type	
124 N2707	IROQUOIS APPROACH RANGE FRONT LIGHT. F. R.	44 50.4 75 18.7	C.	32	Orange triangular daymark with black vertical stripe on skeleton tower.	
125 N2707.1	IROQUOIS APPROACH RANGE REAR LIGHT. F. R.	600 feet, 242°05' from front light.	C.	47	Orange triangular daymark with black vertical stripe on skeleton tower.	
126 N2704.2	—LIGHT 108.1 Fl. Y.	On stone pier 44 50.3 75 18.6	C.	4		Private aid.
127 N2704.4	—LIGHT 108.2 Fl. Y.	On stone pier 44 50.4 75 18.6	C.	4		Private aid.
128 N2704.8	—LIGHT 108.3 Fl. Y.	On submerged canal wall. 44 50.4 75 18.7	C.	4		Private aid.
129 N2706.8	—LIGHT 108.4 Fl. Y.	On submerged canal wall. 44 50.4 75 18.6	C.	4		Private aid.
130	—Lighted Buoy 109 Qk. Fl. G.	In 29 feet	C.		Black, boat type	
131 N2708	—LIGHT 110 E. Int. W.	On lower west guide- wall of Iroquois Lock. 44 50.2 75 18.6	C.	13	33 White circular tower, red top 25	Obscured from 345° to 202°.
132 N2709	—LIGHT 111 Fl. G., 4 <sup>s</sup>	On southwest end of Harkness Island. 44 50.2 75 18.6	C.	46	Orange triangular daymark on tower. 42	
132.20	IROQUOIS LOCK LIGHT. E. Int. W., 2 <sup>s</sup> (1 <sup>s</sup> h).	On west approach wall. 44 49.3 75 19.2	C.	14	34 White circular tower with red upper portion 20.	Obscured from 248° to 033°. 1975
132.50	—Lighted Buoy 112 Fl. R.	44 49.0 75 19.5	C.		Red	Ra ref.
133	—Lighted Buoy 113 Qk. Fl. G.	44 49.0 75 19.3	C.		Black	Ra ref.
134 N2710	—LIGHT 114 Fl. R., 4 <sup>s</sup>	On Toussaint Island. 44 48.8 75 19.8	C.		White circular tower, red top. 23	
135 N2711	SPARROWHAWK POINT LEADING LIGHT. F. G.	On Sparrowhawk Point. 44 48.1 75 20.0		48	Orange triangular daymark with black, vertical stripe on skeleton tower.	S. L. S. Corp. 1964-1975
136 N2712	—LIGHT 115 Fl. G., 2.5 <sup>s</sup>	On Sparrowhawk Point, about 160 feet out- side channel limit.		6	28 White square daymark with black border, white pile.	S. L. S. Corp. 1959
137	—Lighted Buoy 116 Fl. R., 4 <sup>s</sup>	In 27 feet			Red	Ra ref. Spar; winter marker. S. L. S. Corp.
138	—Lighted Buoy 117 Fl. G., 4 <sup>s</sup>	In 27 feet			Black	Ra ref. Spar; winter marker. S. L. S. Corp.
139	—Lighted Buoy 118 Fl. R.	44 47.1 75 22.2	C.		Red	Ra ref.
140	—Lighted Buoy 119 Fl. G., 4 <sup>s</sup>	In 27 feet			Black	Ra ref. Spar; winter marker. S. L. S. Corp.
141	—Lighted Buoy 120 Fl. R.	44 46.9 75 22.7	C.		Red	Ra ref.
142	GALOP ISLAND RANGE FRONT LIGHT. F. G.	44 46.6 75 22.9		28	Orange triangular daymark with black vertical stripe on orange steel square tower.	S. L. S. Corp. 1969
143	GALOP ISLAND RANGE REAR LIGHT. F. G.	1,700 feet, 227.3° from front light.		60	Orange triangular daymark with black vertical stripe on orange steel square tower.	S. L. S. Corp. 1969

LEISHMAN POINT TO  
OGDENSBURG

## ST. LAWRENCE RIVER, NEW YORK AND CANADA

(1)	(2)	(3)	(4)	(5)	(6)	(7)		
No.	Name Characteristic	Location Lat. N. Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure Daymark	Remarks	Year
<b>St. Lawrence Seaway</b>								
144 N2714	— LIGHT 121 ..... Fl. G., 4 <sup>s</sup>	Easterly end of Galop Island.		28		White square daymark with black border, white pile.	S. L. S. Corp.	1961
	— Buoy .....	In 31 feet .....				Black can .....	Ra ref. S. L. S. Corp.	
	— Buoy 121A .....	In 32 feet .....				Black can .....	Ra ref. S. L. S. Corp.	
145	— Lighted Buoy 122 Fl. R., 4 <sup>s</sup>	In 27 feet .....				Red .....	Ra ref. Spar; winter marker, S. L. S. Corp.	
146 N2718	— LIGHT 123 ..... Fl. G., 4 <sup>s</sup>	On Galop Island, about 160 feet out- side channel limit.		28		White square daymark with black border, white pile.	S. L. S. Corp.	1959
	— Buoy .....	In 31 feet .....				Black can .....	Ra ref. S. L. S. Corp.	
147	— Lighted Buoy 124 Fl. R., 4 <sup>s</sup>	In 27 feet .....				Red .....	Ra ref. Spar; winter marker, S. L. S. Corp.	
148	— Lighted Buoy 125 Fl. G., 4 <sup>s</sup>	In 27 feet .....				Black .....	Ra ref. Spar; winter marker, S. L. S. Corp.	
149	— Lighted Buoy 126 Fl. R., 4 <sup>s</sup>	In 27 feet .....				Red .....	Ra ref. S. L. S. Corp.	
150 N2720	DRUMMOND ISLAND RANGE FRONT LIGHT. Qk. Fl. R.	On east side of Lame Squaw Island. C. 44 45.5 75 25.6		42		Orange triangular daymark, black vertical stripe on skeleton tower.		
151 N2720.2	DRUMMOND ISLAND RANGE REAR LIGHT. E. Int. R., 2 <sup>s</sup>	3,198 feet 237' from front light. C.		68		Orange triangular daymark, black vertical stripe on skeleton tower.		
152 N2771	GALOP ISLAND RANGE FRONT LIGHT. F. G.	On southwest side of Galop Island. 44 45.2 75 25.2		28		KRB on white skeleton tower ...	S. L. S. Corp.	1966
153 N2771.1	GALOP ISLAND RANGE REAR LIGHT. F. G.	1,300 feet 058°34' from front light.		48		KRB on white skeleton tower ..	S. L. S. Corp.	1966
153.50	— Lighted Buoy 126A Qk. Fl. R.	In 27 feet .....				Red .....	Ra ref. Spar; winter marker, S. L. S. Corp.	
	— Buoy 127 .....	In 27 feet .....				Black can .....	Ra ref. Spar; winter marker. White reflector. S. L. S. Corp.	
154 N2723	— ICE BOOM CELL LIGHT C Qk. Fl. W.	Marks location of anchors, cables and pile cells.		12			Private aid maintained from Apr. 15 to Dec. 15 1960	
155	— Lighted Buoy 128 Fl. R., 4 <sup>s</sup>	In 27 feet .....				Red .....	Ra ref. Spar; winter marker, S. L. S. Corp.	
156	— Lighted Buoy 129 Qk. Fl. G.	In 27 feet .....				Black .....	Ra ref. Spar; winter marker, S. L. S. Corp.	
157 N2723	CHIMNEY ISLAND LEADING LIGHT. F. G.	On southeast side of Chimney Island. 44 44.5 75 26.4		28		On white pipe .....	Higher intensity beam on bearing 221°46' S. L. S. Corp.	1966
158	— Lighted Buoy 130 Fl. R.	44 44.6 75 26.6				Red .....	Ra ref.	
159 N2724	SPENCER ISLAND PIER LIGHT Fl. R., 4 <sup>s</sup>	On elbow of Spencer Island Dike. C. 44 44.6 75 26.9		26		White circular tower, red top... 23		
160	— Lighted Buoy 130A Qk. Fl. R.	Off Spencer Island Dike. C.				Red .....	Ra ref.	
161	— Lighted Buoy 131 Fl. G.	44 44.3 75 27.1				Black .....	Ra ref.	
162	— Lighted Buoy 131A Fl. G.	In 27 feet .....				Black .....	Ra ref.	
163 N2723.2	— ICE BOOM CELL LIGHT B Qk. Fl. W.	Marks location of anchors, cables and pile cells.		12			Private aid maintained from Apr. 15 to Dec. 15 1960	
164	— Lighted Buoy 131B Fl. G., 4 <sup>s</sup>	In 27 feet .....				Black .....	Ra ref. Spar; winter marker, S. L. S. Corp.	
164.50	— Lighted Buoy 132A Fl. R.	..... C.				Red .....		
165	— Lighted Buoy 132 Fl. R.	In 35 feet .....				Red .....	Ra ref.	
		44 43.1 75 29.1						

OGDENSBURG TO BROCKVILLE

ST. LAWRENCE RIVER, CANADA AND NEW YORK

(1)	(2)	(3)		(4)	(5)	(6)	(7)		
No.	Name	Lat. N.	Long. W.	Nominal Range	Ht. above water	Ht. above ground	Daymark	Remarks	Year
<b>St. Lawrence Seaway (Chart 14764)</b>									
166 H2726	Windmill Point Light Fl. W., 4 <sup>s</sup>	On point, 1.5 miles below Prescott, nearly opposite Ogdensburg. C.			92	62	White circular tower, red top		
167	— Lighted Buoy 133 Fl. G., 4 <sup>s</sup>	44 43.3 75 29.3 In 26 feet, on eastside of west entrance to Ogdensburg.					Black	Ra ref. Spar; winter marker. S. L. S. Corp.	
<b>OGDENSBURG HARBOR</b>									
	— East Entrance Buoy 1	In 25 feet, marks east edge of basin. 44 42.8 75 28.5					Black can	Ra ref. White reflector.	
168	— Middle Entrance Lighted Buoy 2 Fl. R., 4 <sup>s</sup>	In 30 feet					Red		
168.50	— Middle Entrance Buoy 4 — Car Ferry Dock Obstruction Lighted Buoy 2. Qk. Fl. R.	In 22 feet In 12 feet, marks destroyed dock.					Red nun Red	Red reflector. Private aid maintained from Apr. 15 to Nov. 15.	
169	— West Entrance Lighted Buoy 2 Fl. R., 4 <sup>s</sup>	In 20 feet, west side of west entrance.					Red		
	— West Entrance Buoy 3	In 21 feet, at turn in channel.					Black can	White reflector.	
	— West Entrance Buoy 4	In 22 feet					Red nun	Red reflector.	
171	— West Entrance Lighted Buoy 5 Fl. W., 4 <sup>s</sup>	In 22 feet, marks turn into Inner Channel.					Black		
<b>PRESCOTT HARBOR</b>									
172 H2734	PRESCOTT FERRY SLIP LIGHT F. R.	140 feet 124° from southeast corner of car ferry track, approach. C. 44 42.7 75 30.4					Dolphin		
<b>St. Lawrence Seaway</b>									
173 H2736	DUPONT LIGHT F. W.	C. 44 39.5 75 43.7						Private aid.	
174	Maitland Lighted Buoy Mo. (A) W.	In 69 feet, off Maitland. C.					Black and white vertical stripes	Ra ref.	
	Catamaran Shoal Buoy 135	In 33 feet, on north-west side of shoal. C.					Black can	White reflector. S. L. S. Corp.	
175	North McNair Shoal Lighted Buoy 136. Fl. R.	On south side of shoal. C.					Red	Ra ref.	
176 H2740	McNAIR ISLAND LIGHT 137 Fl. G., 4 <sup>s</sup>	On old bridge pier on north side of McNair Island. C. 44 35.7 75 39.9			36	23	White circular tower, black top		
176.50	— Lighted Buoy 137A Fl. G.	C. 44 35.6 75 40.0					Black	Ra ref.	
177 H2742	BROCKVILLE BREAKWATER LIGHT. Fl. R., 4 <sup>s</sup>	On southwest corner of breakwater. C.				28	White circular tower, red top		
178 H2744	SKELETON ISLAND LIGHT 138 Fl. R., 4 <sup>s</sup>	On south side of island, east end of Brockville Narrows. C.			31	23	White circular tower, red top		

OGDENSBURG TO BROCKVILLE

ST. LAWRENCE RIVER, CANADA AND NEW YORK

(1)	(2)	(3)	(4)	(5)	(6)	(7)
No.	Name Characteristic	Location Lat. N. Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure Daymark Remarks Year
<b>St. Lawrence Seaway</b>						
179	<i>Conran Island Shoal Lighted Buoy 139.</i> Fl. G.	Off north extremity of east end of shoal. C.	.....	.....	Black .....	Ra ref.
179.30	<i>Conran Island Lighted Buoy 139A.</i> Fl. G.	Off N. side of island. C	.....	.....	Black .....	Ra ref.
179.50	<i>Smith Island Lighted Buoy 140.</i> ... Fl. R.	Off S. side of island. ..... C 44 34.2 75 42.0 44 34.3 75 42.1	.....	.....	Red .....	Ra ref.
<b>HOLMES POINT TO DEER ISLAND</b>						
<b>St. Lawrence Seaway (Chart 14765)</b>						
180	McCoy ISLAND LIGHT 141 ..... H2746 Qk. Fl. G.	On McCoy Island. C.	.....	28	White circular tower, black top.. 23	
181	ROYAL ISLAND LIGHT 142 ..... H2747 Fl. R., 4 <sup>s</sup>	On small shoal south-westerly of Island. C.	.....	25	White circular tower, red top.... 23	
182	—LIGHT 143 ..... H2748 Fl. G., 4 <sup>s</sup>	On pier ..... C. 44 34.0 75 42.4	.....	28	White circular tower, black top.. 23	
183	—Lighted Buoy 143A ..... Fl. G.	In 42 feet, off north edge of shoal. C. 44 33.7 75 42.7	.....	.....	Black .....	Ra ref.
184	—LIGHT 144 ..... H2749 Qk. Fl. R.	McDonald Point Shoal C.	.....	28	White circular tower, red top.... 15	
185	STOVIN ISLAND LIGHT 145 ..... H2750 Fl. G., 4 <sup>s</sup>	On island ..... C. 44 33.7 75 42.9	.....	28	White circular tower, black top.. 23	
186	NEEDLES EYE ISLAND LIGHT 146. H2751 Fl. R., 4 <sup>s</sup>	On south side of Island. C.	.....	28	White circular tower, red top ... 23	
187	<i>DeRottenburg Lighted Buoy 145A.</i> ... Fl. G.	In 30 feet ..... C.	.....	.....	Black .....	
188	—Lighted Buoy 146A ..... Fl. R.	In 25 feet ..... C.	.....	.....	Red .....	Ra ref.
189	DeWATTEVILLE ISLAND RANGE FRONT LIGHT. H2754 F. W.	On island ..... C. 44 32.9 75 44.1	.....	31	White circular tower, red top.. 23	
190	DeWATTEVILLE ISLAND RANGE REAR LIGHT. H2754.1 F. W.	On mainland, 1,150 feet 036° 55' from front light. C.	.....	74	Red skeleton tower ..... 45	
191	—LIGHT 147 ..... H2756 Fl. G.	On pier ..... C. 44 32.5 75 44.2	.....	28	White circular tower, black top.. 15	
192	—Lighted Buoy 147A ..... Fl. G.	Marks northwest edge of Cole Ferry Shoal. C. 44 32.2 75 44.6	.....	.....	Black .....	Ra ref.
194	—LIGHT 150 ..... H2759 Fl. R., 4 <sup>s</sup>	On pier ..... C. 44 31.8 75 45.3	.....	28	White circular tower, red top .... 15	
194.50	—Lighted Buoy 150A ..... Fl. R., 4 <sup>s</sup>	Marks southern extremity of Cole Shoal. C.	.....	.....	Rod .....	Ra ref.
195	—LIGHT 151 ..... H2760 Fl. G., 4 <sup>s</sup>	On pier ..... C. 44 31.4 75 45.5	.....	28	White circular tower, black top.. 15	
196	—Lighted Buoy 152 ..... Fl. R.	In 27 feet ..... C. 44 31.1 75 46.0	.....	.....	Red .....	Ra ref.
197	<i>Bay State Shoal Anchorage Area N. Lighted Buoy.</i> Fl. W.	Northeast of Union Park Shoal. C. 44 31.1 75 46.5	.....	.....	White .....	

HOLMES POINT TO DEER  
ISLAND

ST. LAWRENCE RIVER, CANADA AND NEW YORK

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water	(6) Structure Ht. above ground Daymark	(7) Remarks Year
<b>St. Lawrence Seaway</b>						
198	Bay State Shoal Anchorage Area S. Lighted Buoy. Fl. W.	East of Savage Island. C.			White	
199	—Lighted Buoy 153 Gk. Fl. W. —Buoy 154	In 51 feet Marks downstream end of shoal.	44 30.4 75 47.2		Black Red nun	Ra ref. Spar; winter marker. S. L. S. Corp. Ra ref. S. L. S. Corp.
200 N2744	—LIGHT 156 Fl. R., 2.5 <sup>s</sup>	In 17 feet, on Bay State Lower Shoal, about 60 feet out- side channel limit.		30	Red rectangular daymark on square skeleton tower.	S. L. S. Corp. 1958
201	—Lighted Buoy 157 Fl. G., 4 <sup>s</sup>	In 30 feet			Black	Ra ref. S. L. S. Corp.
202	—Lighted Buoy 159 Fl. G., 4 <sup>s</sup>	In 41 feet			Black	Ra ref. Spar; winter marker. S. L. S. Corp.
203 N2744	—LIGHT 160 Fl. R., 4 <sup>s</sup>	In 16 feet, on Cross Over Island Shoal, about 105 feet out- side of channel limit.		23	White triangular daymark with red border, white pile.	S. L. S. Corp. 1958
203.50	Whitney Point Lighted Buoy 6T Fl. R.	C. 44 29.2 75 48.2			Red	
204	—Lighted Buoy 162 Gk. Fl. R.	In 56 feet			Red	Ra ref. Spar; winter marker. S. L. S. Corp.
205 N2748	—LIGHT 163 Fl. G., 2.5	In 5 feet, about 140 feet outside channel limit.		28	White square daymark with black border, white pile.	S. L. S. Corp. 1958
206 N2749	CHIPPEWA POINT DIRECTIONAL LIGHT. F. W., R & G., sectors	208°, 1, 150 feet from St. Lawrence Sea- way Light 163.		28	White column	Show red from 186° to 193°; white from 193° to 195°; green from 195° to 202° S. L. S. Corp.
206.50	—Lighted Buoy 163A Fl. G., 4 <sup>s</sup>	In 60 feet		5	Black	Ra ref. White reflector. S. L. S. Corp.
207	—Lighted Buoy 164 Fl. R., 4 <sup>s</sup>	In 50 feet			Red	Ra ref. S. L. S. Corp.
208 N2770	—LIGHT 165 Fl. W., 4 <sup>s</sup>	In 35 feet		23	Black rectangular daymark on square skeleton tower.	S. L. S. Corp. 1972
208.10	—Lighted Buoy 166 Fl. R., 4 <sup>s</sup>	In 30 feet				Ra ref. S. L. S. Corp.
209	—Lighted Buoy 167 Fl. G., 4 <sup>s</sup>	In 30 feet			Black	Ra ref. Spar; winter marker. S. L. S. Corp.
210 N2774	—LIGHT 168 Fl. R., 4 <sup>s</sup>	In 18 feet, off south east end of Jonstad Island, about 205 feet outside channel limit. 44 27.0 75 48.8				
	—Buoy 170	In 30 feet			Red nun	Ra ref. Red reflector. S. L. S. Corp.
211	—Lighted Buoy 172 Fl. R.	On 20-foot shoal, west of Haskell Shoal. C.			Red	Ra ref.
212	Haskell Shoal Lighted Buoy 173 Gk. Fl. G.	In 27 feet, off north edge of Haskell Shoal. C. 44 26.2 75 49.3			Black	Ra ref.
(For Canadian Channel, see No. 290).						
212.50	—Lighted Buoy 176 Fl. R., 4 <sup>s</sup>	In 30 feet			Red	S. L. S. Corp.
213	—Lighted Buoy 177 Fl. G., 4 <sup>s</sup>	In 30 feet, north of Third Brother Island.			Black	Ra ref. Spar; winter marker. S. L. S. Corp.

HOLMES POINT TO DEER  
ISLAND

ST. LAWRENCE RIVER, CANADA AND NEW YORK

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water	(6) Structure Ht. above ground Daymark	(7) Remarks Year
<b>St. Lawrence Seaway</b>						
214 H2774	— LIGHT 178 Fl. R., 4 <sup>s</sup>	On northeast end of Sister Island, about 175 feet outside channel limit.		28	White triangular daymark with red border, white pile.	S. L. S. Corp.
215 H2775	— LIGHT 179 Fl. G., 2.5 <sup>s</sup>	On Ironside Island, about 250 feet out- side channel limit.		28	White square daymark with black border, white pile.	S. L. S. Corp. 1958
216 H2780	— LIGHT 180 Ok. Fl. R.	In 15 feet on Iron- sides Shoal.		28	Black rectangular daymark on square frame tower on cell.	S. L. S. Corp. 1974
217	— Lighted Buoy 181 Fl. G., 4 <sup>s</sup>	44 23.8 75 51.4 In 40 feet, marks shoal southwesterly of Ironside Island.			Black	Ra ref. Spar; winter marker. S. L. S. Corp.
217.50	— Lighted Buoy 181A Fl. G., 4 <sup>s</sup>	In 100 feet			Black	Ra ref. S. L. S. Corp.
218 H2782	— LIGHT 182 Fl. R., 4 <sup>s</sup>	In 15 feet, on Whiskey Island Shoal, about 95 feet outside channel limit.		28	White triangular daymark with red border, white pile.	S. L. S. Corp. 1958-1962
<b>WHISKEY ISLAND SHOAL TO BARTLETT POINT</b>						
<b>St. Lawrence Seaway (Chart 14766)</b>						
219 H2783	— LIGHT 183 Fl. W., 4 <sup>s</sup>	In 5 feet, on Excel- sior Shoal, about 180 feet outside channel limit.		34	Black skeleton tower with small white house on concrete base.	S. L. S. Corp. 1937
220	— Lighted Buoy 185 Fl. G., 4 <sup>s</sup>	44 22.4 75 53.1 In 96 feet, north of Mary Island.			Black	Ra ref. Spar; winter marker. S. L. S. Corp.
221 H2784	— LIGHT 186 Fl. R., 4 <sup>s</sup>	On southeast side of Deer Island, about 320 feet outside channel limit.		28	White triangular daymark with red border, white pile.	S. L. S. Corp. 1958
222 H2785	— LIGHT 187 Fl. W., 4 <sup>s</sup> Hammond Shoal Buoy	On island In 33 feet, marks southern end of shoal.		28	White square daymark with black border, white pile. Black and red horizontal bands, can.	S. L. S. Corp. 1958 R <sup>a</sup> ref. Green reflector.
223 H2786	— LIGHT 189 Fl. G., 4 <sup>s</sup>	On Sunken Rock, 0.5 mile north of Alex- andria Bay, about 290 feet outside of channel limit.		30	White conical tower	Higher intensity beam on bearing 214° diminishing around remainder of horizon. S. L. S. Corp. 1848-1882
224 H2787	— LIGHT 191 Fl. W., 2.5 <sup>s</sup>	In 6 feet, on west side of Sunken Rock Shoal, about 70 feet outside channel limit.		28	Black skeleton tower with small white house on concrete base.	S. L. S. Corp. 1932
225 H2788	— LIGHT 192 Fl. R., 4 <sup>s</sup>	In 4 feet, on Fronte- nac Shoal, about 25 feet outside channel limit.		28	White triangular daymark with red border, white pile.	Higher intensity beam on bearing 219° diminishing around remainder of horizon. S. L. S. Corp. 1958
	Broadway Shoal Buoy	In 16 feet, on north end of shoal, abreast Alexandria Bay.			Black and red horizontal bands; can.	White reflector.

WHISKEY ISLAND SHOAL TO  
BARTLETT POINT

## ST. LAWRENCE RIVER, NEW YORK AND CANADA

(1)	(2)	(3)	(4)	(5)	(6)	(7)
No.	Name Characteristic	Location Lat. N. Long. W.	Nominal Range	Ht. above water	Ht. above ground Structure	Daymark Remarks Year
<b>St. Lawrence Seaway</b>						
	Alexandria Bay Shoal Daybeacon..	On shoal, in entrance to Otter Creek.	.....	....	Red and black horizontally banded cylindrical daymark.	Private aid.
226 N2789	—LIGHT 194 ..... Fl. R., 4 <sup>s</sup>	In 5 feet, on Pullman Shoal, about 100 feet outside channel limit.	.....	34	Red skeleton tower with small white house on concrete base.	S. L. S. Corp. 1937
227 N2790	—LIGHT 195 ..... Fl. G., 4 <sup>s</sup>	44 20.1 75 55.8 In 2 feet, on Cherry Island, about 12 feet outside of channel limit.	.....	23	White square daymark with black border, white pile.	S. L. S. Corp. 1958
228 N2791	—LIGHT 197 ..... Fl. G., 4 <sup>s</sup>	On Stoney Crest Island.	.....	28	White square daymark with black border, white pile.	S. L. S. Corp. 1958
228.5 N2791.4	—LIGHT 198 ..... Fl. R., 4 <sup>s</sup>	On Wellesley Island ..	.....	23	Red rectangular daymark on square skeleton tower.	S. L. S. Corp. 1972
229 N2792	—LIGHT 199 ..... Fl. G., 2.5 <sup>s</sup>	In 6 feet, head of Comfort Island Shoal.	.....	28	Black skeleton tower with small white house on concrete base.	S. L. S. Corp. 1924
230 N2793	—LIGHT 200 ..... Qk. Fl. R.	In 11 feet, south of Seven Isles, about 90 feet outside channel limit.	.....	28	White triangular daymark with red border, white pile.	S. L. S. Corp. 1958
231	—Lighted Buoy 202 ..... Fl. R., 4 <sup>s</sup>	In 60 feet, northwest of Seven Isles Shoal.	.....	....	Red .....	Ra ref. S. L. S. Corp.
232 N2794	POINT VIVIAN LEADING LIGHT .... F. G.	In 2 feet about 900 feet northeast of Light 200.	.....	28	On white pipe .....	Higher intensity beam on bearing 219°. S. L. S. Corp. 1966
233 N2795	—LIGHT 203 ..... Fl. G., 4 <sup>s</sup>	In 13 feet, on Point Vivian Island, about 40 feet outside channel limit.	.....	28	White square daymark with black border, white pile.	S. L. S. Corp 1958
234 N2796	—LIGHT 204 ..... Fl. R., 4 <sup>s</sup>	In 2 feet, about 30 feet outside channel limit.	.....	28	White triangular daymark with red border, white pile.	S. L. S. Corp. 1958
235	—Lighted Buoy 205 ..... Fl. G., 4 <sup>s</sup>	In 150 feet, opposite Light 204.	.....	....	Black .....	Ra ref. Spar; winter marker. S. L. S. Corp.
236 N2797	—LIGHT 206 ..... E. Int. R., 2 <sup>s</sup>	In 1 foot, off Wellesley Island about 25 feet outside channel limit.	.....	28	White triangular daymark with red border, white pile.	S. L. S. Corp.
237 N2798	—LIGHT 207 ..... Fl. G., 4 <sup>s</sup>	44 18.6 75 58.2 In 2 feet, off southwest end of Holiday Island, about 15 feet outside channel limit.	.....	28	White square daymark with black border, white pile.	S. L. S. Corp. 1958
238 N2800	—LIGHT 209 ..... Fl. G., 2.5 <sup>s</sup>	In 10 feet, about 40 feet outside channel limit.	.....	28	White square daymark with black border, white pile.	S. L. S. Corp. 1958
239	—Lighted Buoy 208 ..... Fl. R., 4 <sup>s</sup>	In 35 feet .....	.....	....	Red .....	Ra ref. S. L. S. Corp.
240	—Lighted Buoy 209A ..... Fl. G., 4 <sup>s</sup>	.....	.....	....	Black .....	Ra ref. S. L. S. Corp.
241 N2801	—LIGHT 210 ..... Fl. R., 4 <sup>s</sup>	In 4 feet, about 15 feet outside channel limit.	.....	28	White triangular daymark with red border, white pile.	S. L. S. Corp. 1958
242	—Lighted Buoy 211 ..... Fl. G., 4 <sup>s</sup>	44 17.7 75 59.9 In 50 feet .....	.....	....	Black .....	Ra ref. Spar; winter marker. S. L. S. Corp.
243	—Lighted Buoy 212 ..... Fl. R., 4 <sup>s</sup>	In 40 feet .....	.....	....	Red .....	Ra ref. Spar; winter marker. S. L. S. Corp.

WHISKEY ISLAND SHOAL TO  
BARTLETT POINT

ST. LAWRENCE RIVER, NEW YORK AND CANADA

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water	(6) Ht. above ground Structure Daymark	(7) Remarks Year
<b>St. Lawrence Seaway</b>						
244	— Lighted Buoy 213 Fl. G., 4 <sup>s</sup>	In 35 feet			Black	Ra ref. S. L. S. Corp.
245 H2804	FISHER LANDING LIGHT Fl. G., 4 <sup>s</sup>	On rock 44 16.7 76 00.6		6	11 SB on column on concrete base.	
246 H2805	— LIGHT 214 Fl. R., 2.5 <sup>s</sup>	In 6 feet, on east point to Granite State Shoal, about 51 feet outside channel limit.		28	Red skeleton tower with small white house on concrete base.	Higher intensity beam on bearing 233½° diminishing around remainder of horizon. S. L. S. Corp. 1923
247	— Lighted Buoy 215 Gk. Fl. G.	In 80 feet, southwest of Rock Island.			Black	Ra ref. Spar; winter marker. S. L. S. Corp.
248	— Lighted Buoy 216 Fl. R., 4 <sup>s</sup>	In 27 feet			Red	Ra ref. Spar; winter marker. S. L. S. Corp.
249	— Lighted Buoy 217 Fl. W., 4 <sup>s</sup>	In 46 feet, north of Masons Point.			Black	Ra ref. Spar; winter marker. S. L. S. Corp.
250	Lighted Buoy 218 Fl. R., 4 <sup>s</sup>	In 27 feet			Red	Ra ref. Spar; winter marker. S. L. S. Corp.
251 H2807	— LIGHT 219 Fl. G., 4 <sup>s</sup>	In 10 feet, near south- west end of North Colborne Island, about 68 feet outside Channel limit.		28	White square daymark with black border, white pile.	Higher intensity beam on bearing 056° diminishing around remainder of horizon. S. L. S. Corp. 1958
	— Buoy 221	In 27 feet, marks west end of shoal area.			Black can	Ra ref. White reflector. S. L. S. Corp.
252 H2808	— LIGHT 222 Fl. R., 2.5 <sup>s</sup>	In 2 feet, on southeast point of Chapman Shoal, about 50 feet outside channel limit.		28	Red skeleton tower with small white house on concrete base.	Higher intensity beam down river. S. L. S. Corp. 1924-1942
253	Clayton Shoal Lighted Buoy 1 Fl. W., 4 <sup>s</sup>	In 19 feet, on edge of shoal.	6		Black	
254	— Lighted Buoy 224 Fl. R., 4 <sup>s</sup>	In 28 feet			Red	Ra ref. Spar; winter marker. S. L. S. Corp.
	— Rices Marina Danger Buoy	In 12 feet, marks west end of submerged crib.			White with orange horizontal stripes and orange diamond worded "SUBMERGED CRIB".	
255 H2810	CLAYTON MUNICIPAL PIER LIGHT. F. G.	On end of pier		15	White pile	Private aid. 1963
<b>BARTLETT POINT TO CAPE VINCENT</b>						
<b>St. Lawrence Seaway (Chart 14767)</b>						
256	— Lighted Buoy 225 Fl. G., 4 <sup>s</sup>	In 40 feet, marks shoal northeast of Bartlett Pt.			Black	Ra ref. Spar; winter marker. S. L. S. Corp.
257 H2812	— LIGHT 226 Fl. R., 4 <sup>s</sup>	In 11 feet on Calumet Shoal, about 188 feet outside channel limit.		23	White triangular daymark with red border, white pile.	S. L. S. Corp. 1958
	— Buoy 226A	In 30 feet			Red nun	Ra ref. S. L. S. Corp.
258 H2813	— LIGHT 227 F. G.	In 1 foot, off Bartlett Point, about 322 feet outside channel limit. 44 14.4 76 06.5		23	Black skeleton tower with small white house on concrete base.	S. L. S. Corp. 1926
	— Buoy 228	In 30 feet, marks shoal patch northwest of Bartlett Point.			Red nun	Ra ref. Red reflector. Spar; winter marker. S. L. S. Corp.

BARTLETT POINT TO CAPE  
VINCENT

## ST. LAWRENCE RIVER, NEW YORK AND CANADA

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.		(4) Nominal Range	(5) Ht. above water Ht. above ground	(6) Structure	(7) Daymark Remarks Year
<b>St. Lawrence Seaway</b>							
258.50	GULL ROCK SHOAL LIGHT..... Fl. W., 4 <sup>s</sup>	44 14.5	76 09.0		6	On pile .....	Private aid maintained from June 15 to Sept. 15. 1976
259 #2816	— LIGHT 229 .....	On shore .....			28	White square daymark with black border, white pile.	S. L. S. Corp.
	Fl. G., 2.5 <sup>s</sup>	44 13.2	76 09.6				
<b>WOLFE ISLAND CUT</b>							
260	— Lighted Buoy 36T .....	East side of south entrance to cut. C.				Red .....	Ra ref.
	Qk. Fl. R.	44 14.0	76 10.5				
261	— Lighted Buoy 35T .....	West side of south entrance to cut. C.				Black .....	Ra ref.
262	— Lighted Buoy 38T .....	On east side, middle of cut. C.				Red .....	Ra ref.
263	— Lighted Buoy 37T .....	On west side, middle of cut. C.				Black .....	Ra ref.
264	— Lighted Buoy 40T .....	On east side of north entrance to cut. C.				Red .....	Ra ref.
265	— Lighted Buoy 39T .....	On west side of north entrance to cut. C.				Black .....	Ra ref.
266 #2818	WOLFE ISLAND LIGHT .....	On Quebec or East Point. C.			37	White pyramidal tower .....	
	F. W.	44 14.3	76 11.1			33	
267 #2820	— LIGHT 231 .....	Off north end of Linda Island.			33	Black skeleton tower with small white house on concrete base.	S. L. S. Corp. 1915
	Fl. W., 4 <sup>s</sup>	44 12.3	76 12.4				
268	— Lighted Buoy 233 .....	In 35 feet, on north- erly end of shoal patch west of Linda Island.				Black .....	Ra ref. Spar; winter marker. S. L. S. Corp.
269 #2822	HANFORD POINT LIGHT .....	On south side of Wolfe Island. C.			30	White circular tower, red top... 23	
	Fl. R.	44 12.5	76 14.3				
270	— Lighted Buoy 234 .....	In 35 feet .....				Red .....	Ra ref. S. L. S. Corp.
	Fl. R., 4 <sup>s</sup>						
271	— Lighted Buoy 235 .....	In 30 feet, north of Carleton Island.				Black .....	Ra ref. Spar; winter marker. S. L. S. Corp.
	Qk. Fl. G.						
272 #2826	BAYFIELD ISLAND DIRECTIONAL LIGHT.	On island .....	C.			Orange daymark with black vertical stripe on skeleton tower.	Shows red from 254°30' to 261°30'; white from 261°30' to 264°30'; green from 264°30' to 271°30'.
	E. Int. W., R. & G., sectors, 2 <sup>s</sup>	44 11.7	76 19.7				
273	— Lighted Buoy 237 .....	In 30 feet, northwest of Carleton Island.				Black .....	Ra ref. Spar; winter marker. S. L. S. Corp.
	Fl. G., 4 <sup>s</sup>						
274	— Lighted Buoy 236 .....	In 27 feet .....				Red .....	Ra ref. Spar; winter marker. S. L. S. Corp.
	Fl. R., 4 <sup>s</sup>						
275	— Lighted Buoy 238 .....	In 27 feet .....				Red .....	Ra ref. Spar; winter marker. S. L. S. Corp.
	Fl. R., 4 <sup>s</sup>						
276 #2824	IRVINE POINT RANGE FRONT LIGHT.	..... C.			35	Orange rectangular daymark with black vertical arrow on skele- ton tower.	
	F. R.	44 12.3	76 18.6				
277 #2824.1	IRVINE POINT RANGE REAR LIGHT.	2,560 feet, 031°20' from front light. C.			70	Orange rectangular daymark with black vertical arrow on skele- ton tower.	
	F. R.						
278	— Lighted Buoy 239 .....	In 30 feet .....				Black .....	Ra ref. Spar; winter marker. S. L. S. Corp.
	Fl. G., 4 <sup>s</sup>						
278.50	CARLETON ISLAND LEADING LIGHT.	South end of island ..			29	Orange triangular daymark with black vertical stripe on square skeleton tower.	Visible on bearing 033° only. S. L. S. Corp. 1976
	F. G.	44 10.2	76 18.7				

BARTLETT POINT TO CAPE  
VINCENT

## ST. LAWRENCE RIVER, NEW YORK AND CANADA

(1)	(2)	(3)		(4)	(5)	(6)	(7)
No.	Name Characteristic	L. mt. N.	Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure Daymark Remarks Year
St. Lawrence Seaway							
279	—Lighted Buoy 240 Qk. Fl. R.	In 27 feet				Red	Ra ref. Spar; winter marker. S. L. S. Corp.
280	—Lighted Buoy 241 Fl. G., 4 <sup>s</sup>	In 35 feet				Black	Ra ref. Spar; winter marker. S. L. S. Corp.
281	—Lighted Buoy 242 Fl. R., 4 <sup>s</sup>	In 55 feet, 1,650 feet 105° from Alex- andria Point Light.				Red	Ra ref. Spar; winter marker. S. L. S. Corp.
	Carleton Island South Channel Buoy 1, 3, 5	In 16 feet				Black can	White reflector.
282	CAPE VINCENT BREAKWATER EAST END LIGHT Qk. Fl. W.	On east end of break- water.			6	16	Skeleton tower 1975
283 H2831	CAPE VINCENT BREAKWATER WEST END LIGHT F. R., dark sector	On breakwater				28	Red rectangular daymark on white skeleton tower with small house. 20 Higher intensity on bearings 068° and 193° diminishing around remainder horizon. 1901-1951
CAPE VINCENT TO ALLAN OTTY SHOAL							
St. Lawrence Seaway (Chart 14768)							
284 H2833	POINT ALEXANDRIA LIGHT Fl. R., 4 <sup>s</sup>	On westerly side and 75 feet from outer end of wharf. C.				30	White circular tower, red top 44 08.1 76 21.3
285	—Lighted Buoy 244 Fl. R., 4 <sup>s</sup>	In 27 feet, marks 18 foot shoal south of Wolfe Island.				Red	Ra ref. S. L. S. Corp.
286 H2834	WOLFE ISLAND SOUTH SIDE LIGHT Fl. W., 4 <sup>s</sup>	On south side of island. C.				47	White cylindrical tower 19
287 H2836	Tibbetts Point Light Occ. W., 10'(6'lt)	On point, south side of head of St. Lawrence River. 44 06.0 76 22.2			16	69	White conical tower 59 RBN 306 kHz (— — — —) I. Antenna at fog signal tower. 1827-1882
287.50	Tibbetts Point Traffic Lighted Buoy Mo (A) W.	44 06.0 76 24.4					Black and white vertical stripes. S. L. S. Corp.
288	—Lighted Buoy 245 Fl. G., 4 <sup>s</sup>	In 30 feet				Black	Ra ref. Spar; winter marker. S. L. S. Corp.
CANADIAN CHANNEL							
290 H2774	BRIDGE ISLAND LIGHT Fl. R., 4 <sup>s</sup>	On island No. 118A, 500 feet southward of island. C.				18	White structure 7
291	UPPER ICE SHOALS LIGHT Fl. R., 4 <sup>s</sup>	On rock 44 27.5 75 50.7				26	White tower, red top 23

## LAKE ONTARIO

## LAKE ONTARIO, NEW YORK AND CANADA

(1)	(2)	(3)		(4)	(5)	(6)	(7)			
No.	Name	Lat. N.	Long. W.	Range	Ht. above water	Ht. above ground	Structure	Daymark	Remarks	Year
<b>East End</b> (Chart 14802)										
300	Allan Otty Shoal Lighted Buoy 2 Fl. R., 4 <sup>s</sup>	In 30 feet, south side of shoal. 44 03.8 76 27.0			4		Red		Nun; winter marker.	
301	EAST CHARITY SHOAL LIGHT Fl. W., 4 <sup>s</sup>	In 14 feet, on south-east side of Charity Shoals Group. 44 02.2 76 28.8			9	52	White octagonal pyramidal tower on saure concrete crib.			1935
302	East Charity Shoal Traffic Lighted Buoy. Mo. (A) W.	In 140 feet 44 01.3 76 27.7			6		Black and white vertical stripes.		Ra ref.	
303	Stony Island Lighted Buoy 2 Fl. W., 4 <sup>s</sup>	In 33 feet, off north-east end of island.			6		Red			
304	Point Peninsula Lighted Buoy 3 Fl. W., 6 <sup>s</sup>	In 48 feet, off southern end of peninsula.			7		Black			
<b>Chaumont Bay</b> (Chart 14811)										
305	CHERRY ISLAND LIGHT Fl. W., 4 <sup>s</sup>	On southwest point of island. 44 00.9 76 11.2			8	32	NR on white skeleton tower with inclosed base. 27			1911
306	Jobson Shoal Lighted Buoy 1 Fl. G., 4 <sup>s</sup> — Junction Buoy	In 13 feet In 6 feet			4		Black Black and red horizontal bands; can.		Ra ref. White reflector	
Chaumont Harbor Daybeacon 2 ... Marks rock on south east side of harbor. ... TR on pole on concrete base ...										
307	CHAUMONT HARBOR LIGHT F. G.	On independence Point.			9	30	SB on white skeleton tower 27			1911
308	CRESENT MARINE PIER LIGHT F. R.	On end of pier				9	Post	9	Private aid maintained from May 1 to Nov. 1. 1962	
309	Chaumont Shoal Lighted Buoy Fl. W., 2 <sup>s</sup>	In 5 feet					Orange and white with orange diamond worded "DANGER"		Private aid maintained from June 1 to Oct. 1. 1831-1957	
310	SACKETS HARBOR LIGHT Fl. W., 2 5 <sup>s</sup>	On north side of Horse Island. 43 56.6 76 08.7			8	57	Gray skeleton tower 51			
311	NAVY POINT LIGHT Fl. W., 4 <sup>s</sup>	On northwest end of point.			6	25	TR on white column			1964
<b>Henderson Bay</b>										
312	Lime Barrel Shoal Lighted Buoy 1 Fl. W., 4 <sup>s</sup>	In 30 feet			6		Black			
312.10	Henderson Harbor Special Anchorage Lighted Buoy A. Fl. W., 4 <sup>s</sup>	In 5 feet 43 51.1 76 12.2					White		Private aid maintained from May 1 to Oct. 30.	
312.20	Henderson Harbor Special Anchorage Lighted Buoy B. Fl. W., 4 <sup>s</sup>	In 10 feet					White		Private aid maintained from May 1 to Oct. 30.	
312.30	Henderson Harbor Special Anchorage Lighted Buoy C. Fl. W., 4 <sup>s</sup>	In 20 feet					White		Private aid maintained from May 1 to Oct. 30.	
312.40	Henderson Harbor Special Anchorage Lighted Buoy D. Fl. W., 4 <sup>s</sup>	In 15 feet					White		Private aid maintained from May 1 to Oct. 30.	
312.50	Henderson Harbor Special Anchorage Lighted Buoy E. Fl. W., 4 <sup>s</sup>	In 15 feet					White		Private aid maintained from May 1 to Oct. 30.	

## LAKE ONTARIO

## LAKE ONTARIO, NEW YORK

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.		(4) Nominal Range	(5) Ht. above water	(6) Ht. above ground Structure	(7) Daymark Remarks Year
<b>Henderson Bay</b>							
312.60	Henderson Harbor Special Anchorage Lighted Buoy F. Fl. W., 4 <sup>s</sup>	In 20 feet				White	Private aid maintained from May 1 to Oct. 30.
312.70	Henderson Harbor Special Anchorage Lighted Buoy G. Fl. W., 4 <sup>s</sup>	In 10 feet				White	Private aid maintained from May 1 to Oct. 30.
312.80	Henderson Harbor Special Anchorage Lighted Buoy H. Fl. W., 4 <sup>s</sup>	In 15 feet				White	Private aid maintained from May 1 to Oct. 30.
313	GRAHAM CREEK ENTRANCE LIGHT. E. Int. W., 6 <sup>s</sup>	On east side entrance to creek. 43 51.2 76 12.2			10	White pile 5	Private aid maintained from May 1 to Dec. 1. 1956
314	GRAHAM CREEK RANGE FRONT LIGHT. F. G.	On west side entrance to creek. 43 51.2 76 12.2			10	White pile 5	Private aid maintained from May 1 to Dec. 1. 1956
315	GRAHAM CREEK RANGE REAR LIGHT. F. G.	250 feet 177' from front light.			16	White pile 5	Private aid maintained from May 1 to Dec. 1. 1956
<b>East End (Chart 14802)</b>							
316	Galloo Island Shoal Lighted Buoy 3. Fl. W., 4 <sup>s</sup>	In 30 feet, off southwest end of shoal. 43 19.0 79 04.3			6	Black	Can; winter marker.
317	Galloo Island Light Fl. W., 5 <sup>s</sup>	On southwest end of island. 43 53.3 76 26.7			25	58 Gray conical tower, covered way to dwelling. 55	HORN: 1 blast ev 10 <sup>s</sup> (145). Operates continuously. 1820-1867
<b>OILL HARBOR</b>							
	Cañ Island Spit Buoy S	In 21 feet, southwest of Stony Island.				Black can	White reflector.
<b>EAST END</b>							
318	Stony Point Light E. Int. R., 6 <sup>s</sup> (3 <sup>1/2</sup> ft)	On Point 43 50.3 76 17.9		10	30	TR on white skeleton tower with inclosed base. 25	1838-1859
318.70	Research Lighted Buoy A. Fl. W., 2 <sup>s</sup>	In 27 feet 43 31.6 76 21.3				Orange and white horizontal bands.	Ra ref. Maintained from Apr. 15 to Dec. 1. Private aid.
318.80	Research Lighted Buoy B. Fl. W., 2 <sup>s</sup>	In 27 feet 43 31.9 76 18.2				Orange and white horizontal bands.	Ra ref. Maintained Apr. 15 to Dec. 1. Private aid.
<b>SOUTH SIDE</b>							
<b>Oswego Harbor (Chart 14813)</b>							
319	— DETACHED BREAKWATER WEST END LIGHT. Fl. W., 4 <sup>s</sup>	On west end of detached breakwater.		9	30	White tower	Vessels enroute to or from harbor should use new lake approach channel to westward of Oswego Detached Breakwater. 1960
320	— DETACHED BREAKWATER EAST END LIGHT. Fl. R., 4 <sup>s</sup>	On east end of detached breakwater.		7	30	Red triangular daymark on white tower.	Red reflector. Vessels enroute to or from harbor should use new lake approach channel to westward of Oswego Detached Breakwater. 1960

## SOUTH SIDE

## LAKE ONTARIO, NEW YORK

(1)	(2)	(3)		(4)	(5)	(6)	(7)			
No.	Name Characteristic	Lat. N.	Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure	Daymark	Remarks	Year
<b>Oswego Harbor</b>										
321	— Outer Lighted Buoy 1 Fl. G., 4 <sup>s</sup>	In 29 feet, marks outer end of channel.		4	.....	Black	.....		Ra ref. Can; winter marker.	1932
322	— EAST BREAKWATER LIGHT Fl. G., 4 <sup>s</sup>	On end of breakwater.		7	43	SB on white skeleton tower with inclosed base.				
323	— West Pierhead Light Occ. R., 5 <sup>s</sup> (3 <sup>1</sup> /t)	On end of pierhead .. 43 28.4 76 31.0		14	57	White square tower on corner of square building.			RBN: 306 kHz (s m m) IV. Antenna at light tower. HORN: 1 blast ev 30 <sup>s</sup> (3 <sup>3</sup> /t). 1931-1934	
324	— Inner Buoy 1 — Inner Lighted Buoy 2 Fl. R., 4 <sup>s</sup>	In 19 feet .....		.....	.....	Black can .....			White reflector.	
	— Elevator Channel Buoy 3	In 20 feet, at junction with Oswego River.		4	.....	Red .....			Nun; winter marker.	
	— Elevator Channel Buoy 4	In 21 feet .....		.....	.....	Black can .....			Private aid maintained from April 1 to Dec. 1.	
	— Elevator Channel Buoy 5	In 21 feet .....		.....	.....	Red spar .....			Private aid maintained from April 1 to Dec. 7.	
325	— Canal Channel Lighted Buoy 4 Fl. W., 10 <sup>s</sup> (2 <sup>1</sup> /t)	In 21 feet .....		.....	.....	Black can .....			Private aid maintained from April 1 to Dec. 7.	
326.50	— WEST CHANNEL LIGHT 2 Fl. R., 4 <sup>s</sup>	In 9 feet, at channel leading to Lock No. 8.		.....	.....	Red .....			Private aid maintained from April 1 to Dec. 7.	
	— West Channel Buoy 3	In 21 feet at entrance. 43 29.0 76 31.2		4	36	TR on pile .....				1977
	— West Channel Buoy 5	In 21 feet .....		.....	.....	Black can .....			White reflector.	
	— West Channel Buoy 7	In 21 feet, marks channel limits of the southeasterly cutoff line to turning basin.		.....	.....	Black can .....			White reflector.	
	Oswego Power Plant Discharge Buoy 1	In 28 feet .....		.....	.....	Black can .....			Private aid.	
<b>SOUTH SIDE (Chart 14803)</b>										
327	— Ford Shoal Lighted Buoy 7 Fl. W., 4 <sup>s</sup>	In 24 feet .....		6	9	Black .....				
328	— Fair Haven Outer Light Fl. W., 4 <sup>s</sup>	Near outer end on west pier, entrance to Little Sodus Bay. 43 21.0 76 42.5		9	31	TR on white skeleton tower 27				1872-1945
<b>PORT BAY (Chart 14804)</b>										
	— Entrance Buoy 1	In 3 feet .....		.....	.....	Black can .....			White reflector. Private aid maintained from May 1 to Oct. 20.	
329.10	— ENTRANCE LIGHT 2 Fl. R., 3 <sup>s</sup>	On breakwater .....		.....	15	On steel pile .....			Private aid maintained from May 1 to Oct. 20	
330.10	— Lighted Buoy 3 Fl. G., 4 <sup>s</sup>	In 3 feet .....		.....	.....	Black .....			Private aid maintained from May 1 to Oct. 20	
331.10	— Lighted Buoy 5 Fl. G., 4 <sup>s</sup>	In 3 feet .....		.....	.....	Black .....			Private aid maintained May 1 to Oct. 20.	
331.20	— LIGHT 6 Fl. R., 3 <sup>s</sup>	.....		.....	15	On steel pile .....			Private aid maintained from May 1 to Oct. 20.	
<b>Sodus Bay (Chart 14814)</b>										
332	— Sodus Outer Light Gp. Fl. W., 10 <sup>s</sup> 1.5 <sup>1</sup> /t., 2 <sup>1</sup> /ec. 1.5 <sup>1</sup> /t., 5 <sup>1</sup> /ec. 2 flashes.	On north end of west pier; entrance to Great Sodus Bay. 43 16.6 76 58.5		17	51	White square pyramidal tower. 49			MKR RBN: 314 kHz. Antenna at light tower 1858-1958	

## SOUTH SIDE

## LAKE ONTARIO, NEW YORK

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Hi. above water	(6) Structure Ht. above ground Daymark	(7) Remarks Year
Sodus Bay						
332.51	EAST PIER LIGHT 1 Fl. G., 4 <sup>s</sup>	470 feet, 109' from Sodus Outer Light.		6 18	SB on white pile	1971
	Entrance Buoy 3	In 21 feet			Black can	White reflector.
	Channel Buoy 5	In 21 feet			Black can	White reflector.
333.51	LIGHT 6 F. W., R. sector	In 10 feet, North of Sand Point.		10 18	TR on white column 10	Red from 319° to 179° 1971
	Newark Island Buoy 2	43 16.2 76 58.4 In 9 feet, off north end of island.			Red nun	Red reflector.
	Special Anchorage Buoy A	In 21 feet at south- western limits of an- chorage.			White nun	
	Special Anchorage Buoy B	In 15 feet at south- eastern limits of an- chorage.			White nun	
334	TRESTLE MARINE OBSTRUCTION LIGHT. Gk. Fl. W.	In 20 feet		6	On pile	Private aid.
PULTNEYVILLE ENTRANCE		Maintained from April 15 to Nov 15.				
(Chart 14804)						
336	PULTNEYVILLE OUTER RANGE FRONT LIGHT. F. G.	On shore. 43 16.9 77 11.0			White diamond shape daymark on pile.	Private aid.
336.10	PULTNEYVILLE OUTER RANGE REAR LIGHT. F. G.	60 feet 189' from front light.			White diamond shape daymark on pile. 30	Private aid.
336.20	Lighted Buoy 1 Fl. G., 3 <sup>s</sup>	In 3 feet 43 17.1 77 10.9			Black	Private aid.
336.30	Lighted Buoy 2 Fl. R., 3 <sup>s</sup>	In 3 feet			Red	Private aid.
336.40	Lighted Buoy 3 Fl. G., 3 <sup>s</sup>	In 3 feet			Black	Private aid.
336.50	Lighted Buoy 4 Fl. R., 3 <sup>s</sup>	In 3 feet			Red	Private aid.
336.60	PULTNEYVILLE INNER RANGE FRONT LIGHT. F. R.	On shore. 43 17.0 77 11.1			White diamond shape daymark with red border.	Private aid.
336.70	PULTNEYVILLE INNER RANGE REAR LIGHT. F. R.	225 feet 259' from front light.			White diamond shape daymark with red border.	Private aid.
336.80	Lighted Buoy 5 Fl. G., 3 <sup>s</sup>	In 3 feet			Black	Private aid.
336.90	Lighted Buoy 6 Fl. R., 3 <sup>s</sup>	In 3 feet			Red	Private aid.
(Chart 14815)						
337	Rochester Obstruction Buoy 1 Rochester Harbor Light Fl. W., 7.5 <sup>s</sup>	In 4 feet On west pier, near north end. 43 15.8 77 36.0		18 59	Black can Red skeleton tower with red square inclosed top. 31	White reflector. RBN: 306 kHz (m =) V. Antenna 2,760 feet 202' from light tower. HORN: 1 blast ev 30' (3'bl). 1828-1931 1902
338	ROCHESTER HARBOR EAST PIER LIGHT. F. G. Genesee River Turning Basin Buoy 2, 4, 6, 8. Rigney Bluff Buoy	On north end of pier, entrance to harbor. Marks turning basin. In 6 feet 43 16.5 77 38.1		10 34	White square pyramidal tower 31 Red nun Orange and white horizontal bands.	Private aid maintained from June 15 to Sept. 15

## SOUTH SIDE

## LAKE ONTARIO, NEW YORK

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Rsnge	(5) Ht. above water ground	(6) Structure Daymark	(7) Remarks	Year
(Chart 14805)							
339	BRADDOCK BAY ENTRANCE EAST LIGHT. Fl. W., 4 <sup>s</sup>	In 7 feet ..... 43 18.7 77 42.6		6 20	SB on white column .....		1959
340	BRADDOCK BAY ENTRANCE WEST LIGHT. Fl. R., 4 <sup>s</sup>	In 7 feet .....		5 20	TR on white column .....		1959
341	Braddock Point Light ..... E. Int. W., 6 <sup>s</sup>	On Bogus Point, 2.7 miles west of point. 43 20.5 77 45.7		14 55	NR on white skeleton tower ....		1896-1954
Oak Orchard							
341.10	—BREAKWATER LIGHT B ..... Fl. W., 6 <sup>s</sup>	Marks center of de- tached breakwater.		8 30	NR on pile .....		1975
341.20	—BREAKWATER LIGHT A ..... Qk. Fl. W.	Marks east end of de- tached breakwater.		4 25	NR on pile .....		1975
341.30	—BREAKWATER LIGHT C ..... Qk. Fl. W.	Marks west end of de- tached breakwater.		4 25	NR on pile .....		1975
	— Entrance Buoy 1 .....	In 9 feet .....			Black can .....	Green reflector.	
	— Entrance Buoy 2 .....	In 12 feet .....			Red nun .....	Red reflector.	
341.40	—JETTY LIGHT 3 .....	On north end of east jetty.		4 25	SB on pile .....		1976
341.50	—JETTY LIGHT 4 .....	On north end of west jetty.		4 25	TR on pile .....		1976
Golden Hill Creek							
Buoys periodically shifted due to changing channel conditions.							
SOUTH SIDE							
345	Thirty Mile Point Light ..... Fl. W., 10 <sup>s</sup>	On point .....		27 72	NR on galvanized skeleton tower. 62		1876-1959
Olcott (Chart 14806)							
346	—LIGHT ..... Fl. R., 2.5 <sup>s</sup>	On outer end of west pier. 43 20.4 78 43.2		6 28	Red post .....		1873-1930
	Eighteen Mile Creek Obstruction Buoy.	Marks Northwest end of obstruction, 1,420 feet 150° from Olcott Light.			White can with orange band near top and water line, worded SUBMERGED OBSTRUCTION below orange diamond.		
	Eighteen Mile Creek Obstruction Buoy.	Marks Southeast end of obstruction, 1,460 feet 149°50' from Olcott Light.			White can with orange band near top and water line, worded SUBMERGED OBSTRUCTION below orange diamond.		
WILSON HARBOR (Chart 14806)							
347	—PIERHEAD LIGHT 2 ..... Fl. R., 4 <sup>s</sup>	On outer end of west pier. 43 19.2 78 50.3		7 30	Red skeleton tower .....	Higher intensity in a northerly direction.	1950
	—Daybeacon 4, 5, 6, 7, 8, 9, 10, 12, 13, 15, 16, 17, 18, 20, 21.	In 6 feet .....		10	Even numbered; TR on pile; odd numbered; SG on pile.		
	Wilson Rock Buoy 1 .....	In 7 feet ..... 43 18.1 78 54.3			Black can .....	White reflector.	
349	Fort Niagara Light ..... Occ. W., 4 <sup>s</sup> (3°lt)	On high east bank of river. 43 15.7 79 03.6		15 91	Gray octagonal tower, upper part yellow. 65	Light shut in by trees to eastward and from occasional points in river. 1823-1872	
350	Niagara Bar Lighted Buoy 2 ..... Fl. W., 4 <sup>s</sup>	In 42 feet, on east end of shoals. 43 19.0 79 04.3		6	Red .....	Ra ref. Nun; winter marker.	

## SOUTH SIDE

## LAKE ONTARIO, NEW YORK AND CANADA

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water	(6) Ht. above ground Structure	(7) Daymark Remarks Year
<b>Dicott</b>						
<b>WILSON HARBOR</b>						
351	Fort Niagara Lighted Bell Buoy 1 ... Fl. W., 4 <sup>s</sup>	In 16 feet, at north west end of shoal.		6	Black	Ra ref. Can; winter marker.
	Niagara Bar Gong Buoy 4	In 16 feet			Red	Red reflector. Nun; winter marker.
<b>Niagara River</b>						
(Below the Falls) (Chart 14816)						
352	Niagara Bar Lighted Buoy Fl. W.	Marks southern limit of area. C. 43 16.0 79 05.6			White and green horizontal bands.	Ra ref.
353	Niagara River Approach Lighted Buoy. Fl. W.	Marks southern limit of area. C. 43 16.0 79 04.4			White and green horizontal bands.	Ra ref.
354	FORT MISSISSAUGA LIGHT Fl. R., 4 <sup>s</sup>	On ramparts. C. 43 15.7 79 04.6		30	White circular tower	
354.50	Niagara River Fog Signal	On Canada Steamship Lines wharf. C. 43 15.4 79 03.9			White rectangular building.	HORN, 1 blast ev 30 <sup>s</sup> (3 <sup>bl</sup> ).
355	Niagara River Range Front Light .. F. R.	43 15.3 79 03.7		30	Red and white pyramidal tower.	Visible on rangeline only.
356	Niagara River Range Rear Light.... F. R.	690 feet 149°30' from front light. C.		43	White square tower 45	Visible on rangeline only.
	Youngstown Special Anchorage Buoys A, B.	Buoy A marks SW corner of mooring area. Buoy B marks NW corner of mooring area.			White drums	White reflector. Private aids.
<b>Port Weller</b> (Chart 14806)						
357	—Reporting Lighted Buoy Mo. (A)W.	Off Port Weller... C. 43 16.9 79 12.8			Black and white vertical stripes.	Ra ref. Maintained by S. L. S. Authority.
358	—OUTER LIGHT Fl. R., 5 <sup>s</sup>	On outer end of west breakwater at en- trance to canal. C. 43 14.7 79 13.1		49	Red tower on white building	RBN: 302 kHz (•••••)I. Emergency light. HORN: 2 blasts ev 60 <sup>s</sup> (3 <sup>bl</sup> -3 <sup>si</sup> -3 <sup>bl</sup> -51 <sup>si</sup> ).
359	—EAST BREAKWATER LIGHT ... Fl. G., 4 <sup>s</sup>	On outer end of east breakwater. C.		34	Orange daymark on white pile...	Eastern limits, measured distance.
360	—EAST BREAKWATER INNER LIGHT. F. Y.	43 14.7 79 12.9		35	Mast	A submarine cable (power) is to be charted from a point on the east pier 099°, 500 feet from Port Weller Outer Light in a 271° direction to the west pier.
361	—ENTRANCE RANGE FRONT LIGHT. F. Y.	At entrance to canal. 43 13.4 79 13.0		54	Orange and white mast	1969
362	—ENTRANCE RANGE REAR LIGHT. F. Y. R. G.	2,975 feet 180° from front light. C.		105	Orange and white skeleton tower.	Red 177°30' to 179°40' through S. to 180°20', Green 180°20' to 182°30'. Yellow sector indicates preferred channel. 1969-1974

(For Port Colborne and North Side of Lake Erie, see No. 799).

## SOUTH SIDE

## LAKE ONTARIO, NEW YORK AND CANADA

(1)	(2)	(3)		(4)	(5)	(6)	(7)		
No.	Name	Location	Nominal Range	Ht. above water	Ht. above ground	Structure	Daymark	Remarks	Year
<b>Port Weller</b>									
363	PORT DALHOUSIE RANGE FRONT LIGHT. F. G.	Near outer end of east pier.	C.	.....	42 41	White pyramidal tower	.....	Visible on rangeline only. Emergency Light. HORN: 1 blast ev 30 <sup>s</sup> (4 <sup>bl</sup> ). Horn points north Western limit, measured distance.	
364	PORT DALHOUSIE RANGE REAR LIGHT. F. G.	On beach, 1,500 feet 177° from front light.	C.	.....	56 54	White pyramidal tower	.....		
		43 12.4	79 15.8						
<b>NORTH SIDE</b> (Can. Chart 2071)									
365	Nine Mile Point Light ..... Fl. W., 10 <sup>s</sup>	On southwest point of Simcoe Island.	C.	.....	12	53	White circular tower, red band at top.	FOGHORN. 1 blast ev 30 <sup>s</sup> (3 <sup>bl</sup> ). Horn points 211°.	
366	Emerge Point Lighted Bell Buoy... Fl. R.	.....	C.	.....	.....	.....	Red	Ra ref.	
367	Pigeon Island Light ..... Fl. W., 4 <sup>s</sup>	On island, 4 miles from Wolfe Island, northeast end of lake.	C.	.....	.....	65	White square skeleton tower	.....	
		44 04.0	76 33.0			55			
368	South Charity Shoal Lighted Buoy 8. Fl. R.	Off southwest extremity of shoal.	C.	.....	.....	.....	Red	Ra ref.	
368.50	South Charity Shoal Lighted Buoy 9. Fl. G.	In 28 feet	C.	.....	.....	.....	Black	Ra ref.	
		43 59.0	76 32.5						
(Can. Chart 2064)									
369	Main Duck Island Light ..... Fl. W., 6 <sup>s</sup>	On west end of island.	C.	.....	14	74	White circular tower	RBN: 306 kHz (m o m m) II. FOGHORN 2 blasts ev 60 <sup>s</sup> (3 <sup>bl</sup> -3 <sup>mi</sup> -3 <sup>bl</sup> -51 <sup>s</sup> ). Horn points 070°.	
		43 55.9	76 38.3						
370	The Ducks Lighted Buoy 10 ..... Fl. R.	Southeast of Main Duck Island.	C.	.....	.....	.....	Red	Ra ref.	
		43 54.6	76 35.7						
371	Main Duck Island Lighted Buoy 7 . Fl. G.	On Western edge of shoal.	C.	.....	.....	.....	Black	Ra ref.	
		43 55.0	76 40.5						
372	Psyche Shoal Lighted Bell Buoy 12. Fl. R.	In 39 feet, on southeast side of shoal.	C.	.....	.....	.....	Red	Ra ref.	
373	William Shoal Lighted Buoy 11 .... Fl. G.	Marks southwest edge of shoal.	C.	.....	.....	.....	Black	Ra ref.	
		43 55.5	76 47.8						
374	False Ducks Light ..... F. R., 10 <sup>s</sup>	On east point of Sweetman Island.	C.	.....	.....	67	Hexagonal concrete tower, red and white horizontal bands; white circular fog signal tower.	HORN: 1 blast ev 60 <sup>s</sup> (4 <sup>bl</sup> ). Horn points south.	
		43 56.9	76 47.9						
375	False Ducks Bank Lighted Buoy 14A. Fl. R.	On southeast edge of bank.	C.	.....	.....	.....	Red	Ra ref.	
		43 56.0	76 48.7						
376	Traverse Shoal Lighted Buoy 14 .... Fl. R.	.....	C.	.....	.....	.....	Red	Ra ref.	
		43 54.3	76 50.8						
(Can. Chart 2061)									
377	Prince Edward Point Light ..... Fl. W., 4 <sup>s</sup>	On point	C.	.....	.....	46	White skeleton tower		
		43 56.2	76 51.5						

## NORTH SIDE

## LAKE ONTARIO, CANADA

(1)	(2)	(3)		(4)	(5)	(6)	(7)			
No.	Name	Loc. N.	Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure	Daymark	Remarks	Year
378	Point Petre Light ..... Fl. W., 10 <sup>s</sup>	On point ..... C. 43 50.3	77 09.2		13	62	Red and white horizontally banded circular tower, white fog signal house, red roof.		RBN: 306 kHz (— — — —) II. HORN: 1 blast ev 20 <sup>s</sup> (2 <sup>s</sup> bl).	
379	SCOTCH BONNET LIGHT ..... Fl. W., 4 <sup>s</sup>	On small island, 1 mile southwest of Nicholson Island. C. 43 53.9	77 32.5			74	Skeleton tower .....			
380	PROCTER POINT LIGHT ..... Fl. Y. 4 <sup>s</sup>	On south end of island. C. 43 58.3	77 44.7			40	White circular tower, red top ....			
COEURG										
(Can. Chart 2070)										
382	—EAST PIERHEAD LIGHT ..... Fl. R., 10 <sup>s</sup>	On outer end of east pier. C. 43 57.2	78 09.9			45	White pyramidal tower on fog signal building. 40		MKR RBN: 288 kHz. FOGHORN: 3 blasts ev 60 <sup>s</sup> (2 <sup>bl</sup> -3 <sup>si</sup> -2 <sup>bl</sup> -3 <sup>si</sup> -2 <sup>bl</sup> -48 <sup>si</sup> ). Horn points 187°.	
(Can. Chart 2058)										
383	Peter Rock Light ..... Fl. W., 4 <sup>s</sup>	On rock, 2.7 miles east of Port Hope Breakwater. C. 43 56.4	78 13.8			37	White circular tower, red top... 32			
OSHAWA HARBOR										
384	—Range Front Light ..... E. Int. G., 2 <sup>s</sup>	On outer end of west pier. C. 43 51.9	78 49.3			35	White circular tower, black top, fluorescent orange triangular daymark black vertical stripe. 27		MKR RBN: 314 kHz. WHISTLE: 1 blast ev 20 <sup>s</sup> (2 <sup>bl</sup> ).	
385	—RANGE REAR LIGHT ..... F. G.	1,050 feet 328° from front light. C.				56	Orange triangular daymark with black vertical Stripe on Skeleton tower.			
Toronto Harbor (Can. Chart 2065)										
386	Gibraltar Point Light ..... Fl. Y., 10 <sup>s</sup>	East of point. C. 43 36.8	79 23.0			56	White tripod tower .....		RBN: 290 kHz (— — — —). Antenna located 800 feet northwest of light. Visible from 074° to 254°.	

## BUFFALO HARBOR

## LAKE ERIE, NEW YORK

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. Ht. above water ground	(6) Structure Daymark	(7) Remarks Year
(Chart 14833)						
400	—Traffic Lighted Bell Buoy .... Mo. (A) W.	In 26 feet ..... 42 50.2 78 55.4		6 ....	Black and white vertical stripes.	Ra ref.
401	BUFFALO INTAKE CRIB LIGHT . Gp. Fl. W., 5 <sup>s</sup> 0.5 <sup>fl.</sup> , 1 <sup>sec.</sup> 0.5 <sup>fl.</sup> , 3 <sup>sec.</sup> 2 flashes.	In 17 feet, on north side of north entrance to harbor. 42 52.8 78 54.7	.....	60	Large circular building on concrete crib.	Private aid. 1908
402	—WEST BREAKWATER LIGHT... Fl. R., 4 <sup>s</sup>	Marks northwest end of detached break- water.		6 25	NR on white column .....	1962
(For Niagara River Entrance see No. 447).						
(For Buffalo Harbor South Entrance see No. 440).						
BUFFALO HARBOR NORTH ENTRANCE						
403	BUFFALO HARBOR LIGHT .... Fl. W., 10 <sup>s</sup> (2 <sup>fl.</sup> )	Southeast end of detached breakwater.		30 71	White tower on concrete base.	MKR RBN: 286 kHz. Antenna at light tower. HORN: 2 blast ev 20 <sup>s</sup> (2 <sup>fl.</sup> 2 <sup>fl.</sup> 2 <sup>fl.</sup> 14 <sup>fl.</sup> ). 1961
404	—Channel Lighted Bell Buoy 1 ... Fl. W., 4 <sup>s</sup>	In 25 feet .....		6 ....	Black .....	Ra ref.
405	—Channel Lighted Buoy 2 .....	In 25 feet .....		4 ....	Red .....	Ra ref.
406	—Channel Lighted Buoy 4 .....	In 27 feet .....		4 ....	Red .....	
407	BUFFALO HARBOR NORTHSIDE LIGHT. Fl. G., 2.5 <sup>s</sup>	Marks northside of gap in breakwater.		6 ....	SB on white tower .....	1961
408	BUFFALO HARBOR SOUTH SIDE LIGHT. Fl. R., 2.5 <sup>s</sup>	Marks south side of gap in breakwater.		5 ....	White square daymark on white tower.	1961
409	BUFFALO HARBOR OLD BREAK- WATER NORTH END LIGHT. Fl. W., 2.5 <sup>s</sup>	On north end of Old breakwater. 42 52.7 78 53.9		6 25	NR on white column .....	1872-1965
410	BUFFALO NORTH BREAKWATER SOUTH END LIGHT. Fl. G., 2.5 <sup>s</sup>	On southeast end .... 42 52.8 78 53.8		7 36	White bottle-shaped structure ... 29	1901-1901
(For Black Rock Canal see No. 419).						
(For Buffalo Outer Harbor see after No. 446)						
BUFFALO RIVER						
411	BUFFALO COAST GUARD SLIP LIGHT. F. R.	On north end of pier .. 42 52.7 78 53.5		9 16	Red triangular daymark .....	1947
412	—ENTRANCE LIGHT .....	On pier, near outer end of Coast Guard Base.		9 25	White column .....	1960
413	—Junction Lighted Buoy .....	In 22 feet .....		4 ....	Red and black horizontal bands.	Ra ref. Nun; winter marker.
413.5	CITY OF BUFFALO BREAK- WATER LIGHT. Fl. G., 3 <sup>s</sup>	560 feet, 336' from Coast Guard Base Signal Station.	.....		On white pile .....	Private aid. Maintained from Apr. 1 to Dec. 1, 1972
	—Buoy 2 .....	In 22 feet .....			Red nun .....	Red reflector.
	—Buoy 4 .....	In 22 feet .....			Red nun .....	Red reflector.
	—Buoy 5 .....	In 23 feet, marks shoal south end of breakwater.			Black can .....	White reflector.

## BUFFALO HARBOR

## LAKE ERIE, NEW YORK

(1)	(2)	(3)		(4)	(5)	(6)		(7)		
No.	Name	Lat. N.	Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure	Daymark	Remarks	Year
<b>BUFFALO RIVER</b>										
414	GENERAL MILLS CO. DOCK LIGHT 2. Occ. R., 5 <sup>s</sup> (4 <sup>1</sup> / <sub>2</sub> l)	On building at end of conduit. 42 52.3 78 52.6		.....	13	.....	.....	.....	Private aid.	1955-1970
415	GENERAL MILLS CO. DOCK LIGHT 4. Occ. R., 5 <sup>s</sup> (4 <sup>1</sup> / <sub>2</sub> l)	On building		.....	13	.....	.....	.....	Private aid.	1970
416	GENERAL MILLS CO. DOCK LIGHT 6. Occ. R., 5 <sup>s</sup> (4 <sup>1</sup> / <sub>2</sub> l)	On building		.....	16	.....	.....	.....	Private aid.	1955
417	GENERAL MILLS CO. DOCK LIGHT 8. Occ. R., 5 <sup>s</sup> (4 <sup>1</sup> / <sub>2</sub> l)	On building		.....	13	.....	.....	.....	Private aid.	1970
418	GENERAL MILLS CO. DOCK LIGHT 10. Occ. R., 5 <sup>s</sup> (4l)	On building of dock.		.....	13	.....	.....	.....	Private aid.	1955
<b>BLACK ROCK CANAL</b>										
419	— Lighted Buoy 1 Fl. W., 4 <sup>s</sup>	In 20 feet, marks turn.		.....	6	.....	Black	.....	Can; winter marker.	
420	STATE BREAKWATER LIGHT 2 Fl. R., 4 <sup>s</sup>	On northwest end of breakwater, north end of Erie Basin.		.....	42	.....	TR on white skeleton tower, with small white house with enclosed base.	.....		1914-1938
421	— Lighted Buoy 3 Fl. G., 4 <sup>s</sup>	In 21 feet, marks turn.		.....	4	.....	Black	.....	Can; winter marker.	
422	— LIGHT 4 F. R.	On pier, west of marine airport.		.....	9	20	TR on white pipe	.....		1935
423	— Lighted Buoy 5 Fl. G., 4 <sup>s</sup>	In 20 feet, at angle in channel.		.....	4	.....	Black	.....	Can; winter marker.	
	— Buoy 6	In 20 feet		.....		.....	Red nun	.....	Red reflector.	
	— Buoy 7	In 24 feet		.....		.....	Black can	.....	Green reflector.	
424	— Lighted Buoy 8 Fl. R., 4 <sup>s</sup>	In 20 feet, off City Dock.		.....	4	.....	Red	.....	Nun; winter marker.	
425	— Lighted Buoy 10 Fl. R., 2.5 <sup>s</sup>	In 20 feet		.....	4	.....	Red	.....	Nun; winter marker.	
426	— Lighted Buoy 11 Fl. G., 2.5 <sup>s</sup>	In 20 feet, at beginning of turn.		.....	4	.....	Black	.....	Can; winter marker.	
427	— Lighted Buoy 12 Fl. R., 2.5 <sup>s</sup>	In 20 feet		.....	4	.....	Red	.....	Nun; winter marker.	
428	— Lighted Buoy 13 Fl. G., 2.5 <sup>s</sup>	In 20 feet		.....	4	.....	Black	.....	Can; winter marker.	
429	— Lighted Buoy 14 Fl. R., 2.5 <sup>s</sup>	In 20 feet		.....	4	.....	Red	.....	Nun; winter marker.	
430	— Lighted Buoy 15 Fl. G., 2.5 <sup>s</sup>	In 20 feet		.....	4	.....	Black	.....	Can; winter marker.	
431	— Lighted Buoy 16 Fl. R., 4 <sup>s</sup>	In 20 feet		.....	4	.....	Red	.....	Nun; winter marker.	
432	— LIGHT 17 Fl. G., 4 <sup>s</sup>	At angle of breakwater.		.....	4	33	SB on white skeleton tower, enclosed base.	.....		1914-1938
433	— Lighted Buoy 19 Fl. G., 4 <sup>s</sup>	In 20 feet		.....	4	.....	Black	.....		
434	— Lighted Buoy 21 Fl. W., 4 <sup>s</sup>	In 20 feet		.....	6	.....	Black	.....		
435	— Lighted Buoy 23 Fl. W., 4 <sup>s</sup>	In 20 feet		.....	6	.....	Black	.....		
436	— Lighted Buoy 25 Fl. W., 4 <sup>s</sup>	In 20 feet		.....	6	.....	Black	.....		
437	— Lighted Buoy 26 Fl. R., 4 <sup>s</sup>	In 20 feet		.....	4	.....	Red	.....		
438	— Lighted Buoy 27 Fl. W., 4 <sup>s</sup>	In 20 feet		.....	6	.....	Black	.....		
439	— Lighted Buoy 28 Fl. R., 4 <sup>s</sup>	In 20 feet		.....	4	.....	Red	.....		

## BUFFALO HARBOR

## LAKE ERIE, NEW YORK

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water	(6) Ht. above ground Structure	(7) Daymark Remarks Year
(For Strawberry Island Cut, see No. 449).						
SOUTH ENTRANCE						
439, 50	SOUTH BUFFALO DIKE DISPOSAL LIGHT 2. Qk. Fl. W.	On dike..... 42 50.2 78 52.5		4 36	TR on white pile.....	1977
440	SOUTH BUFFALO PIERHEAD LIGHT. Fl. R., 2.5 <sup>s</sup>	On Stony Point Breakwater. 42 50.2 78 52.5		13 43	TR on white skeleton tower with inclined base. 27	Red reflector. HORN: 1 blast ev 10 <sup>s</sup> (1 <sup>st</sup> bl) Operates con- tinuously. 1912-1935 Increased intensity lakeward.
441	SOUTH BUFFALO NORTH SIDE LIGHT. Fl. G., 4 <sup>s</sup>	On breakwater, north side of south entrance.		7 40	White bottle-shaped structure... 29	Increased intensity lakeward.
442	SOUTH BUFFALO SOUTH SIDE LIGHT. Fl. R., 7.5 <sup>s</sup>	On breakwater, south side of main south entrance to Buffalo Harbor.		23 53	Lower part brown, cylindrical upper part white, conical; brown fog signal house joining.	RBN: 322 kHz (m s s s). Antenna at light tower. 1903
443	LACKAWANNA LIGHT .....	On east side of entrance to slip, Lackawanna Canal.		22	Black pile .....	Private aid. 1909
444	LACKAWANNA WEST PIERHEAD LIGHT. F. R.	On west side of entrance to slip, Lackawanna Canal.		22	Red pile .....	Private aid. 1911
445	UNION CANAL LIGHT .....	On south side of entrance to canal.		20	Red pile .....	Private aid.
446	Union Canal Entrance Buoy 1 ...	In 22 feet .....			Black can .....	White reflector.
	UNION CANAL NORTH SIDE LIGHT F. R.	On north side of canal		13	Red pile .....	Private aid. 1947
BUFFALO OUTER HARBOR						
	—Deep Draft Channel Buoy 1 ...	In 27 feet .....			Black can .....	White reflector.
	—Deep Draft Channel Buoy 3 ...	In 27 feet .....			Black can .....	White reflector.
NIAGARA RIVER (Chart 14832)						
	Waverly Shoal Buoy 3 .....	In 14 feet, south of 13-foot spot of shoal. C. 42 51.7 78 56.2			Black can .....	White reflector.
	— Entrance Buoy 6 .....	In 10 feet .... C.			Red nun .....	Red reflector.
	— Entrance Buoy 8 .....	In 10 feet .... C.			Red nun .....	Red reflector.
	— Entrance Buoy 10 .....	In 11 feet .... C.			Red nun .....	Ra ref. Red reflector.
	— Buoy 12 .....	In 12 feet .... C.			Red nun .....	Ra ref. Red reflector.
447	Middle Reefs Lighted Buoy 14.... Fl. R.	1 mile northwest of Buffalo Harbor Light. C.			Red .....	Ra ref.
448	—INTAKE CRIB LIGHT .....	In 15 feet, north of Peace Bridge. 42 54.5 78 54.3		30	Concrete crib .....	Private aid. 1870
STRAWBERRY ISLAND CUT						
451	—Lighted Buoy 1 .....	In 22 feet .....		6	Black .....	
	Fl. W., 4 <sup>s</sup>	42 56.6 78 54.7				
452	CORNELIUS CREEK DOCK LIGHT. F. R.	On northwest corner of pier.		8	.....	Private aid. 1961
453	—UPPER RANGE FRONT LIGHT. F. R.	In 4 feet, on east side of river.		30	White daymark on white skeleton tower on square pier.	Range is lighted throughout 24 hours. Illuminates 022' to eastward and 112' to westward of range line. 1908-1951

NIAGARA RIVER

LAKE ERIE, NEW YORK

(1) No.	(2) Name Characteristic	(3) Location		(4) Nominal Range	(5) Ht. above water	(6) Structure Ht. above ground Daymark	(7) Remarks	Year
		Lat. N.	Long. W.					
STRAWBERRY ISLAND CUT								
454	— UPPER RANGE REAR LIGHT. F. R.	In Riverside Park, 795 feet 000½" from front light.		.....	50	White square daymark on white column.		1908-1963
455	— Buoy 5 .....	In 21 feet .....		.....	.....	Black can .....	Ra ref. White reflector.	
455	— LOWER RANGE FRONT LIGHT. F. R.	On east bank .....		.....	34	White daymark on white skeleton tower with inclosed base.	Visible on rangeline only. Lighted throughout 24 hours. 1908-1916	
456	— LOWER RANGE REAR LIGHT. F. R.	On Fuller Street, Buffalo, 750 feet 139½" from front light.		.....	83	White daymark on skeleton tower.	Visible on rangeline only. Lighted throughout 24 hours. 1908-1916	
457	— Lighted Buoy 7 .....	In 22 feet, on edge of Strawberry Island Reef, at turn.		.....	6	Black .....	Can; winter marker.	
	— Buoy 8 .....	In 21 feet .....		.....	.....	Red nun .....	Red reflector.	
	— Buoy 9 .....	In 21 feet .....		.....	.....	Black can .....	White reflector.	
	— Buoy 10 .....	In 21 feet .....		.....	.....	Red nun .....	Red reflector.	
	— Buoy 12 .....	In 21 feet .....		.....	.....	Red nun .....	Ra ref. Red reflector.	
458	— Lighted Buoy 11 .....	In 21 feet .....		.....	6	Black .....		
	Fl. W., 2.5 <sup>h</sup>							
BEAVER ISLAND STATE PARK								
459	EAST BULKHEAD LIGHT .....	On angle of breakwater.		.....	7	14	On pile .....	Private aid. Maintained from Apr. 1 to Nov. 1. 1969
	Ch. Fl. W.	42 57.5 78 57.3						
460	— EAST ENTRANCE LIGHT .....	On breakwater .....		.....	14	On pile .....	Private aid. Maintained from Apr. 1 to Nov. 1. 1969	
461	— WEST ENTRANCE LIGHT .....	On breakwater .....		.....	14	On pile .....	Private aid. Maintained from Apr. 1 to Nov. 1. 1969	
	Fl. G., 2 <sup>h</sup>							
462	— WEST BULKHEAD LIGHT .....	On angle of breakwater.		.....	7	14	On pile .....	Private aid. Maintained from Apr. 1 to Nov. 1. 1969
	Ch. Fl. W.							
STRAWBERRY ISLAND CUT								
463	GRAND ISLAND RANGE FRONT LIGHT. F. R.	On east shore of island.		.....	29	White daymark on white skeleton tower with inclosed base.	Visible on rangeline only. Lighted throughout 24 hours. 1917	
464	GRAND ISLAND RANGE REAR LIGHT. F. R.	On island, 515 yards 313½" from front light.		.....	47	White daymark on white skeleton tower with small white house.	Visible on rangeline only. Lighted throughout 24 hours.	
	— Buoy 13 .....	In 23 feet .....		.....	.....	Black can .....	Ra ref. White reflector.	
	— Buoy 14 .....	In 21 feet .....		.....	.....	Red nun .....	Ra ref. Red reflector.	
	— Buoy 16 .....	In 21 feet .....		.....	.....	Red nun .....	Ra ref. Red reflector.	
	— Buoy 17 .....	In 21 feet, east of Motor Island.		.....	.....	Black can .....	Ra ref. White reflector.	
	— Buoy 18 .....	In 21 feet, off Buffalo General Electric Co. Plant.		.....	.....	Red nun .....	Ra ref. Red reflector.	
465	— Lighted Buoy 20 .....	In 21 feet, on north-east side of north entrance to cut.		.....	4	Red .....	Nun; winter marker.	
	Fl. R., 4 <sup>h</sup>							
TONAWANDA CHANNEL								
	— Buoy 21 .....	In 24 feet, marks easterly side of shoal area.		.....	.....	Black can .....	White reflector.	
	— Buoy 22 .....	In 28 feet, marks lower end of shoal opposite the Senet-Solway Company Dock.		.....	.....	Red nun .....	Red reflector.	

NIAGARA RIVER

LAKE ERIE, NEW YORK

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water ground	(6) Structure Daymark	(7) Remarks Year
<b>TONAWANDA CHANNEL</b>						
466	—Lighted Buoy 26 Gk. Fl. R.	In 22 feet		4	Red	Ra ref.
467	—Lighted Buoy 28 Fl. R., 4 <sup>s</sup>	In 22 feet		4	Red	Ra ref. Red reflector.
	—Buoy 30	In 22 feet			Red nun	Ra ref. Red reflector.
	—Buoy 31	In 25 feet			Black can	Ra ref. Green reflector.
468	—Lighted Buoy 32 Fl. R., 4 <sup>s</sup>	In 22 feet		4	Red	Ra ref.
	—Buoy 34	In 27 feet			Red nun	Ra ref. Red reflector.
469	FRONTIER REFINERY OBSTRUCTION LIGHT A. Fl. W.	On east side of channel.		14		Private aid maintained from Apr. 15 to Dec. 1. 1962
470	FRONTIER REFINERY OBSTRUCTION LIGHT B. Fl. W.	On east side of channel.		14		Private aid maintained from Apr. 15 to Dec. 1. 1962
(For continuation of Tonawanda Channel, see No. 475).						
<b>NEW YORK STATE BARGE CANAL ENTRANCE</b>						
	Tonawanda Island Buoy 1	In 12 feet, off southwest end of island. 43 01.4 78 53.2			Black can	White reflector.
471	—LIGHT 1 Fl. W., 5 <sup>s</sup>	On west side of entrance to Barge Canal (Tonawanda Creek).		12	Arm from dock corner	Private aid. 1919
472	—PIER LIGHT 2 Fl. R., 5 <sup>s</sup>	On east side of entrance to Barge Canal (Tonawanda Creek).		12	Piling	Private aid. 1919
473	—EAST LIGHT 3 Fl. R., 4 <sup>s</sup>	On east side of Barge Canal (Tonawanda Creek).		6	Red pile	Private aid. 1920
<b>TONAWANDA CHANNEL</b>						
475	—Lighted Buoy 35 Fl. G., 2.5 <sup>s</sup>	In 21 feet, south of Tonawanda Intake Crib.		4	Black	
476	TONAWANDA INTAKE CRIB LIGHT. Fl. W., 4 <sup>s</sup>	In 16 feet, on south crib at south entrance to dredged cut.		18	White triangular daymark with red top on stone base.	Private aid. 1893-1956
477	—Lighted Buoy 37 Fl. G., 2.5 <sup>s</sup>	In 21 feet		4	Black	
478	—Lighted Buoy 38 Fl. W., 2.5 <sup>s</sup>	In 21 feet		6	Red	Ra ref.
479	TONAWANDA HARBOR CHANNEL LEADING LIGHT. Gk. Fl. R.	On east side of channel abreast Tonawanda Iron Works. 43 02.5 78 53.4		11	26 KRW on white pile	Visible 4" each side of centerline of channel. 1940-1957
481	NORTH TONAWANDA INTAKE CRIB LIGHT. Fl. G., 4 <sup>s</sup>	In 17 feet, on middle crib, west side of dredged cut.		19	Cylindrical structure with orange	Private aid. 1897
482	—Lighted Buoy 39 Fl. G., 2.5 <sup>s</sup>	In 24 feet, off Lockport Intake Crib.		4	Black	
483	LOCKPORT INTAKE CRIB LIGHT. Fl. W., 4 <sup>s</sup>	In 18 feet, on crib abreast north end of Tonawanda Island.		15	Red cylindrical structure on concrete crib.	Private aid. 1909

NIAGARA RIVER

LAKE ERIE, NEW YORK

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.		(4) Nominal Range	(5) Ht. above water	(6) Structure Ht. above ground Daymark	(7) Remarks	Year
<b>TONAWANDA CHANNEL</b>								
484	SMITH BOYS MARINA NORTH LIGHT. F. W.	In 14 feet 43 01.8	78 52.9		15	On pile	Private aid. Maintained from May 1 to Nov. 1.	
485	SMITH BOYS MARINA SOUTH LIGHT. F. W. — Buoy 40 — Turning Basin Buoy 41	In 14 feet In 24 feet In 12 feet, marks northwest corner of turning basin.			15	On pile Red nun Black can	Private aid maintained from May 1 to Nov. 1. Red reflector. White reflector.	
<b>NIAGARA FALLS CHANNEL</b>								
	— Buoy 1	In 19 feet 43 02.3	78 53.5			Black can	White reflector.	
	— Buoy 2	In 19 feet				Red nun	Red reflector.	
	— Buoy 3	In 19 feet, at angle in channel.				Black can	White reflector.	
	— Buoy 4	In 14 feet, at angle in channel.				Red nun	Red reflector.	
	— Buoy 5	In 12 feet, at angle in channel.				Black can	White reflector.	
	— Buoy 6	In 12 feet, at angle in channel.				Red nun	Red reflector.	
	— Buoy 7	In 12 feet				Black can	White reflector.	
	— Buoy 9	In 16 feet, at angle in channel.				Black can	White reflector.	
	— Buoy 10	In 14 feet, at angle in channel.				Red nun	Red reflector.	
	— Buoy 12	In 12 feet				Red nun	Red reflector.	
486	SANDY BEACH YACHT CLUB LIGHT. Gk. Fl. W.	Marks end of dock at Grand Island, New York.			16	White pile	Private aid maintained from Apr. 1 to Dec. 1, 1962	
487	LITTLE RIVER RANGE FRONT LIGHT. F. R.	On shore			29	Pile	Private aid maintained from May 1 to Nov. 1.	
488	LITTLE RIVER RANGE REAR LIGHT. F. R. Sandy Beach North Buoy Sandy Beach East Buoy Sandy Beach South Buoy — Buoy 13 — Buoy 14	344°, 200 feet from front light. In 7 feet In 7 feet In 7 feet In 24 feet, at angle in channel. In 25 feet, at angle in channel.			33	Pile Red drum Red drum Red drum Black can Red nun	Private aid maintained from May 1 to Nov. 1. Private aid. Private aid. Private aid. White reflector. Red reflector.	
489	LaSALLE YACHT CLUB PIER EAST LIGHT. F. R.	43 04.4	78 59.3		6		Private aid.	1948
490	LaSALLE YACHT CLUB PIER WEST LIGHT. F. R. — Buoy 15 — Buoy 16				6		Private aid.	1948
491	NIAGARA MOHAWK POWER CORPORATION LIGHT. Fl. W., 4 <sup>s</sup>	43 04.2	79 00.0		14	Tower	Private aid.	1959
492	NIAGARA FALLS INTAKE CRIB LIGHT. Fl. W., 4 <sup>s</sup>	On crib, 195 feet east of middle transmission tower.			15	Concrete crib	Private aid.	1911
493	NIAGARA FALLS TRANSMISSION LINE LIGHT B. Fl. W., 3 <sup>s</sup>	On pier supporting tower carrying transmission line.			20	Cylindrical standard	Private aid.	1930

NIAGARA RIVER

LAKE ERIE, NEW YORK

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.		(4) Nominal Range	(5) Ht. above water ground	(6) Structure	(7) Daymark Remarks	Year
<b>NIAGARA FALLS CHANNEL</b>								
494	NIAGARA FALLS TRANSMISSION LINE LIGHT C. Fl. W., 3 <sup>s</sup>	On pier supporting tower carrying transmission line.		.....	20	Cylindrical standard .....	Private aid.	1930
495	BUCKHORN ISLAND DIKE LIGHT 1. Fl. W., 4 <sup>s</sup>	On north end of detached breakwater.		.....	20	.....	Private aid maintained from Apr. 1 to Dec. 1. 1961	
496	BUCKHORN ISLAND DIKE LIGHT 2. Fl. W., 4 <sup>s</sup>	On south end of detached breakwater.		.....	20	.....	Private aid maintained from Apr. 1 to Dec. 1. 1961	
497	BUCKHORN ISLAND DIKE LIGHT 3. Fl. W., 4 <sup>s</sup>	On north end of southern breakwater.		.....	20	.....	Private aid maintained from Apr. 1 to Dec. 1. 1961	
498	BUCKHORN ISLAND INTAKE CRIB LIGHT. Fl. R., 4 <sup>s</sup>	In 14 feet .....		.....	18	Black and gray rectangular concrete crib.	Private aid.	1952
499	HOOKER ELECTROCHEMICAL CRIB LIGHT Fl. W., 7 <sup>s</sup>	Marks outfall crib .....		.....	9	Concrete structure .....	Private aid.	
<b>CHIPPAWA CHANNEL</b>								
500	BIG SIX MILE CREEK LIGHT .... F. R.	At entrance to creek. ....		.....	6	.....	Private aid maintained from May 1 to Nov. 1. 1962	
<b>WELLAND RIVER</b>								
501	CHIPPAWA LIGHT .....	On northeast side of entrance to ship channel, at mouth of river. .... 43 03.8 79 02.8		.....	16	Ornamental pile .....	Defines danger zone above Niagara Falls. Private aid.	
<b>SOUTH SIDE (Chart 14822)</b>								
502	Lockawanna Dumping Ground Lighted Buoy. Fl. W., 5 <sup>s</sup>	Marks dumping area .. 42 49.5 78 52.6		.....	.....	Orange and white horizontal bands.	Private aid maintained from May 1 to Dec. 1.	
503	Seneca Shoal Lighted Buoy 2 .....	In 30 feet, on north- west side of shoal.		.....	6	Red .....	Ra ref.	
	Wanakah Intake Crib Buoy 2 .....	In 5 feet .....		.....	.....	Red nun .....	Private aid maintained from May 1 to Nov. 1.	
<b>(Chart 14823)</b>								
504	CATTARAUGUS CREEK LIGHT 2. E. Int. W., 6 <sup>s</sup> (3 1/4)	On west side of entrance to creek. 42 34.2 79 08.2		.....	11 38	TR on pile .....	Light in operation throughout 24 hours. 1940-1974	
<b>Dunkirk Harbor</b>								
506	DUNKIRK LIGHT .....	On Point Gratiot, west of entrance to harbor. 42 29.6 79 21.2		.....	16	82 White square tower, dwelling attached.	1962	
507	Entrance Lighted Buoy 2 .....	In 17 feet .....		.....	4	Red .....	Ra ref. Nun; winter marker	
508	—PIERHEAD LIGHT .....	On outer end of west pier. Fl. R., 5 <sup>s</sup>		.....	14 63	TR on white skeleton tower, inclosed base.	1837-1939	
509	—LIGHT 3 .....	On end of detached breakwater.		.....	7 20	SB on white pile .....	1970	
	—Buoy 4 .....	In 17 feet .....		.....	.....	Red nun .....	Red reflector.	

## SOUTH SIDE

## LAKE ERIE, NEW YORK

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water	(6) Structure Ht. above ground Daymark	(7) Remarks Year
<b>Dunkirk Harbor</b>						
— Buoy 6		In 20 feet			Red sun	Red reflector.
— Buoy 7		In 19 feet			Black can	White reflector.
— Buoy 8		In 21 feet			Red sun	Red reflector.
— Buoy 9		In 20 feet			Black can	White reflector.
— Buoy 10		In 21 feet			Red sun	Red reflector.
— Buoy 11		In 20 feet			Black can	White reflector.
— Buoy 13		In 20 feet			Black can	White reflector.
509.20	— Obstruction Lighted Buoy A ... Ck. Fl. W.	In 4 feet			White with orange horizontal bands and diamond.	Private aid maintained from May 1 to Nov. 1.
	— Obstruction Buoy B	In 6 feet			White can with orange horizontal bands and diamond.	Private aid. Maintained from May 1 to Nov. 1.
509.30	— Obstruction Lighted Buoy C ... Ck. Fl. W.	In 9 feet			White with orange horizontal bands and diamond.	Private aid. Maintained from May 1 to Nov. 1.
509.40	— Obstruction Lighted Buoy D ... Ck. Fl. W.	In 6 feet			White with orange horizontal bands and diamond.	Private aid. Maintained from May 1 to Nov. 1.
509.50	— Obstruction Lighted Buoy E ... Ck. Fl. W.	In 6 feet			White with orange horizontal bands and diamond.	Private aid. Maintained from May 1 to Nov. 1.
	— Obstruction Buoy F, G, H, J, K, L, M, N, P.	In 4 feet			Orange and white horizontal bands.	Private aids. Maintained from May 1 to Nov. 1.
<b>SOUTH SIDE</b>						
510	BARCELONA HARBOR EAST BREAKWATER LIGHT. Fl. W., 4 <sup>s</sup>	On end of breakwater. 42 20.7 79 35.9		8 26	SB on white column	1960
511	BARCELONA HARBOR WEST BREAKWATER LIGHT. Fl. R., 4 <sup>s</sup>	On end of breakwater		6 26	TR on white column	1960
(Chart 14824)						
512	SUN OIL COMPANY DOCK LIGHT. Gp. Fl. W., 12 <sup>s</sup> 0.5 fl., 0.5 sec. 0.5 fl., 0.5 sec. 0.5 fl., 9.5 sec. 3 flashes.	On end of dock, 3 miles east of Erie Harbor. 42 10.5 80 00.6			25 Pipe standard	Private aid.
<b>ERIE HARBOR</b> (Chart 14835)						
513	PIERHEAD LIGHT Occ. R., 5 <sup>s</sup> (3 <sup>s</sup> lt)	On outer end of north pier. 42 09.4 80 04.3		14 42	Black and white horizontally banded square tower. 34	RBN: 294 kHz (m o m m) IV. Antenna 66 feet 232" from light tower. HORN: 1 blast ev 30 <sup>s</sup> (3-4-4) 1819-1940
514	HAMMERMILL INTAKE EAST CRIB LIGHT. F. W.	In 12 feet, on crib			15 Gray pile	Private aid. 1958
514	HAMMERMILL INTAKE EAST CRIB LIGHT. F. W.	In 12 feet, on crib			15 Gray pile	Private aid. 1958
515	— ENTRANCE RANGE FRONT LIGHT. F. G.	On south pier, 1,300 feet from outer end.			35 White daymark on white skeleton tower.	White reflector west side of tower visible only to outbound vessels. Visible 4" each side of centerline of channel. 1940
516	— ENTRANCE RANGE REAR LIGHT. F. G.	On south pier, 755 feet 235" from front light.			50 White daymark on white skeleton tower.	Visible 4" each side of centerline of channel. 1940
517	— Entrance Lighted Bell Buoy 1 ... Fl. G., 4 <sup>s</sup>	In 27 feet		4	Black	Ra ref. Can; winter marker.

## ERIE HARBOR

## LAKE ERIE, PENNSYLVANIA

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. Ht. above water ground	(6) Structure Daymark	(7) Remarks Year
518	— Entrance Lighted Buoy 2 Fl. R., 4 <sup>s</sup>	In 29 feet		4	Red	Ra ref. Nun; winter marker.
	— Channel Buoy 3	In 25 feet			Black can	Green reflector.
	— Channel Buoy 4	In 25 feet			Red nun	Red reflector.
519	— Channel Lighted Buoy 5 Fl. W., 4 <sup>s</sup>	In 28 feet, abreast pierhead.		6	Black	Ra ref.
	— Channel Buoy 6	In 25 feet			Red nun	Red reflector.
520	— Channel Lighted Buoy 7 Fl. W., 2.5 <sup>s</sup>	In 28 feet		6	Black	Ra ref.
521	— INNER RANGE FRONT LIGHT. F. R.	On west end of north pier.		60	White daymark on skeleton tower.	1856-1936
522	— INNER RANGE REAR LIGHT. F. R.	835 feet 054½" from front light.		80	White oval daymark on skeleton tower.	1856-1924
	— Channel Buoy 8	In 25 feet			Red nun	Red reflector.
523	— Channel Lighted Buoy 9 Fl. W., 4 <sup>s</sup>	In 25 feet		6	Black	Ra ref.
524	— Channel Lighted Buoy 10 Fl. R., 4 <sup>s</sup>	In 25 feet, on north side of basin.		4	Red	Ra ref.
	— Buoy 11	In 22 feet			Black can	White reflector.
	— Erie West Buoy 1	In 22 feet			Black can	Green reflector.
	— Erie West Buoy 3	In 18 feet			Black can	Green reflector.
	Horseshoe Pond Midchannel Buoy A.	In 9 feet			Black and white vertical stripes; can.	Private aid maintained from May 1 to Oct. 1.
	Horseshoe Pond Midchannel Buoy B.	In 8 feet			Black and white vertical stripes; can.	Private aid maintained from May 1 to Oct. 1.
PRESQUE ISLE PARK						
525	— RANGE FRONT LIGHT. F. R.	Marks small boat channel to state maina. 42 09.4 80 06.8		19	White rectangular daymark with black vertical stripe on white skeleton tower.	Private aid maintained May 1 to Nov. 30. 1963-1970
526	— RANGE REAR LIGHT F. R.	425 feet, 339¾" from front light.		31	White rectangular daymark with black vertical stripe on white skeleton tower.	Private aid maintained from May 1 to Nov. 30. 1963
530	— LIGHT 5 Fl. G., 2 <sup>s</sup>			20	On pipe	Private aid maintained from May 1 to Nov. 30 1970
531	— LIGHT 6 Fl. R., 2 <sup>s</sup>			20	On pipe	Private aid maintained from May 1 to Nov. 30. 1970
532	— LIGHT 7 Fl. G., 2 <sup>s</sup>			20	On pipe	Private aid maintained from May 1 to Nov. 30. 1970
533	— LIGHT 8 Fl. R., 2 <sup>s</sup>			20	On pipe	Private aid maintained from May 1 to Nov. 30. 1970
	— Water Pipe Buoy A, B, C	In 17 feet to 21 feet			Orange and white horizontal bands; spar.	Marks intake water main. Private aid.
534	ERIE YACHT CLUB BREAKWATER LIGHT. Occ. W., 6 <sup>s</sup> (3.5 <sup>th</sup> )	On northeasterly corner of new east breakwater.		20	White tower	Private aid maintained from from May 30 to Oct. 15.
535	ERIE YACHT CLUB ENTRANCE EAST LIGHT F. G.	On end of east break- water.		10	White tower	Private aid maintained from May 30 to Oct. 15. 1962-1967
536	ERIE YACHT CLUB ENTRANCE WEST LIGHT. F. R.	On end of west break- water.			White tower	Private aid maintained from May 30 to Oct. 15.
536.10	ERIE YACHT CLUB RANGE FRONT LIGHT. F. R.			15	On pipe	Private aid. Maintained from May 15 to Nov. 15. 1974
536.20	ERIE YACHT CLUB RANGE REAR LIGHT. F. R.	150 feet, 150° from front light.		17	On pipe	Private aid. Maintained from May 15 to Nov. 15. 1974
	Erie Harbor West Shoal Buoys A, B, C.	In 11 to 12 feet			Orange and white horizontal bands worded "SHOAL".	Private aids maintained from May 1 to Oct. 1.

## SOUTH SIDE

## NEW YORK, LAKE ERIE, PENNSYLVANIA AND OHIO

(1)	(2)	(3)		(4)	(5)	(6)	(7)
Name	Name Characteristic	Lat. N.	Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure Daymark Remarks Year
(Chart 14824)							
537	Pesque Isle Light Fl. W., 7.5 <sup>s</sup>	On northwest shore of peninsula. 42 09.9 80 06.9		18	73	White square tower, red dwelling attached. 68	Emergency light shows Fl. W., 6 <sup>s</sup> ; nominal range 11 miles when main light inoperative. 1873
538.10	WALNUT CREEK BREAKWATER LIGHT. Fl. W., 30 <sup>s</sup>	At entrance to Walnut Creek access area. 42 04.6 80 14.3		.....	16	On pile .....	Private aid. Maintained from 15 Apr. to Dec. 15. 1974
	Springfield Township Daybeacon .....	Off south shore, 5 miles east of Conneaut. 42 00.2 80 27.2		.....	.....	White tripod .....	Reflectors. Private aid.
Conneaut Harbor							
539	—BREAKWATER LIGHT 1 .....	On east breakwater ..		7	46	White skeleton tower with inclosed base.	1917-1935
540	—WEST BREAKWATER LIGHT .. Fl. W., 2.5 <sup>s</sup>	On end of west breakwater. 41 58.8 80 33.4		16	80	White square pyramidal tower with black band.	HORN: 2 blasts ev 30 <sup>s</sup> (2 <sup>bl</sup> -2 <sup>bl</sup> -2 <sup>bl</sup> -24 <sup>bl</sup> ±1). Tower floodlighted from sunset to sunrise.
541	—EAST GAP LIGHT 1 .....	On northerly end of east breakwater.		9	25	SB on white column .....	
542	—PIER LIGHT 4 <sup>s</sup> .....	On north end of west pier.		9	28	TR on white pile .....	1835-1934
543	—PIER LIGHT 3 .....	On north end of east pier.		9	28	SB on white pipe .....	1915-1966
544	CONNEAUT BOAT CLUB WEST LIGHT. F. R.	On shore, on west side of entrance.		.....	10	White pipe .....	Private aid maintained from May 1 to Nov. 1. 1960
545	CONNEAUT BOAT CLUB EAST LIGHT. F. G.	On shore, on east side of entrance.		.....	10	White pipe .....	Private aid maintained from May 1 to Nov. 1. 1960
546	CONNEAUT BOAT CLUB RANGE FRONT LIGHT. F. G.	Marks entrance through jetties to marina.		.....	12	Orange diamond daymark .....	Private aid.
547	CONNEAUT BOAT CLUB RANGE REAR LIGHT. F. G.	200 feet 158° from front light.		.....	30	Orange circular daymark .....	Private aid.
(Chart 14825)							
548	POWERHOUSE BREAKWATER LIGHT. F. W. Ashtabula Harbor (Chart 14836)	On north end of breakwater. 41 54.8 80 46.2		11	17	Gray skeleton tower .....	Private aid. Maintained from Apr. 15 to Nov. 1. 1930
549	—Light .....	On pierhead, 600 feet from north end of west breakwater, west side of entrance. 41 55.1 80 47.8		23	51	White cylindrical tower on white white square house.	RBN: 306 kHz (mms) VI. Antenna at light tower. HORN: 2 blasts ev 60 <sup>s</sup> (3 <sup>bl</sup> -3 <sup>bl</sup> ±1-3 <sup>bl</sup> -51 <sup>bl</sup> ±1). 1835-1916
550	—WEST PIERHEAD LIGHT .....	On pierhead crib		9	46	TR on white skeleton tower, inclosed base.	1935
551	—EAST BREAKWATER LIGHT .. Fl. G., 4 <sup>s</sup>	On end of east breakwater.		8	46	SB on white skeleton tower, inclosed base.	Higher intensity beam on bearing of 161° diminishing around remainder of horizon. 1914-1935
	—Buoy 1 .....	In 26 feet .....		.....	.....	Black can .....	Ra ref. Green reflector.

## SOUTH SIDE

## LAKE ERIE, PENNSYLVANIA AND OHIO

(1)	(2)	(3)		(4)	(5)	(6)	(7)			
No.	Name Characteristic	Lat. N.	Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure	Daymark	Remarks	Year
<b>Ashtabula Harbor</b>										
552	— Junction Lighted Buoy I. Qk. Fl. W.	In 26 feet			6		Red and black horizontal bands.		Ra ref.	
553	— Lighted Buoy 3 Fl. G., 4 <sup>s</sup>	In 26 feet			4		Black		Ra ref.	
	— Buoy 4	In 25 feet					Red sun		Ra ref. Red reflector.	
	— Buoy 5	In 26 feet					Black can		Ra ref. Green reflector.	
554	— INNER BREAKWATER LIGHT F. G.	On westerly end of break water.			9	34	SB on white pile		Higher intensity beam on bearing 186° dimini- shing around remainder horizon.	1893-1935
555	— WEST PIER LIGHT F. R.	On east side of pier, near north end.				35	TR on white skeleton tower, inclosed base.			
	— Inner Breakwater Shoal Buoy I	In 21 feet					Black can		Green reflector.	
	— Dock Shoal Buoy 2	In 25 feet					Red sun		Red reflector.	
556	— EAST BREAKWATER SOUTH END LIGHT. Fl. W., 4 <sup>s</sup>	On east end of breakwater. 41 54.8 80 46.8			8	25	NB on white column			1961
<b>INDUSTRIAL RAYON CORPORATION (Chart 14825)</b>										
557	— Intake Crib Lighted Buoy 3 Gp. Fl. W., 6 <sup>s</sup> 0.3 <sup>m</sup> , 0.4 <sup>ec</sup> 0.3 <sup>m</sup> , 5.0 <sup>ec</sup> . 2 flashes.	In 18 feet 41 47.3 81 12.8					Black		Private aid.	
	— Buoy 1	In 12 feet					Black can		Private aid.	
	— Buoy 5	In 19 feet, marks submerged water intake crib.					Black can		Private aid.	
<b>Fairport Harbor (Chart 14837)</b>										
558	— EAST BREAKWATER EAST END LIGHT. Fl. W., 4 <sup>s</sup>	41 46.1 81 M.4			9	28	White pile		Higher intensity beam in easterly direction.	1945
	Fairport Breakwater Buoy A	In 12 feet 41 45.9 81 18.3					White can with orange band near top and water line, orange diamond with orange center cross, worded SUBMERGED BREAKWATER.			
	Fairport Breakwater Buoy B	In 20 feet					White can with orange band near top and water line, orange diamond with orange center cross, worded SUBMERGED BREAKWATER.			
	Fairport Breakwater Buoy C	In 16 feet					White can with orange band near top and water line, orange diamond with orange center cross, worded SUBMERGED BREAKWATER.			
	Fairport Breakwater Buoy D	In 14 feet					White can with orange band near top and water line, orange diamond with orange center cross, worded SUBMERGED BREAKWATER.			
559.10	Lake County Outer Crib Lighted Buoy I. Qk. Fl. W.	In 18 feet. Marks north side of crib.					Black		Private aid maintained from Apr. 15 to Nov. 15.	

## SOUTH SIDE

## LAKE ERIE, OHIO

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. Ht. above water ground	(6) Structure Daymark	(7) Remarks Year
<b>Fairport Harbor</b>						
560	LAKE COUNTY INNER CRIB LIGHT. Gp. Fl. R., 10 <sup>s</sup> 0.5 <sup>s</sup> fl., 2 <sup>s</sup> ec. 0.5 <sup>s</sup> fl., 7 <sup>s</sup> ec. 2 flashes.	On intake crib, inside of breakwater.	.....	15	Red pyramidal frame on round base.	Private aid maintained from Apr. 15 to Nov. 15, 1912-1952
561	— EAST BREAKWATER LIGHT .. Fl. G., 4 <sup>s</sup>	On pierhead of east breakwater.		7 37	White skeleton tower, inclosed base.	1913-1925
562	— WEST BREAKWATER EXTENSION LIGHT. F. R.	On outer end of breakwater extension.		10 46	White skeleton tower, inclosed base.	1935
563	— West Breakwater Light .....	On breakwater, west side of entrance to harbor. 41 46.1 81 16.9		15 56	White square tower on corner of square building.	MKR RBN: 318 kHz. Antenna at tower. HORN: 2 blasts ev 30 <sup>s</sup> (2 bl-2 si-2 bl-24 si). 1910-1921 1912-1940
564	— WEST PIER LIGHT .....	On north end of pier, west side of inner entrance.		9 34	White skeleton tower, inclosed base.	1912-1940
565	— EAST PIER LIGHT .....	On north end of pier, east side of inner entrance.		9 28	White pile .....	1835-1925
	— Daybeacon .....	On bluff, east of river. 41 45.4 81 16.7		.....	Gray, conical tower .....	Unused lighthouse.
566	MORTON SALT COMPANY BOATLOADING NORTH AND SOUTH LIGHTS. 2 F. R.	Marks north and south corners of boat loader.		.....	.....	Private aid maintained from May 1 to Nov. 1, 1962
567	MORTON SALT COMPANY DOLPHINE LIGHT. Gk. Fl. R.	On south dolphin ...		.....	Dolphin .....	Private aid maintained from May 1 to Nov. 1, 1959
SOUTH SIDE (Chart 14825)						
568	Painesville Inner Intake Crib Lighted Buoy. Gk. Fl. W. Painesville Water Works Intake Daymark.	In 18 feet, 59 feet north of crib.  In 12 feet of water, marks water intake crib. 41 45.4 81 17.9		6 .....	Black .....	Private aid maintained from Apr. 15 to Nov. 15.  Private aid.
569	MENTOR OUTER EAST BREAKWATER LIGHT. F. G.	On outer end of east breakwater. 41 43.7 81 21.2		8 21	White diamond daymark on white pile.	Private aid maintained from Apr. 15 to Nov. 1, 1940-1955
570	MENTOR INNER EAST BREAKWATER LIGHT. F. G.	On inner end of breakwater.		8 33	White diamond daymark on white pile.	Private aid maintained from Apr. 15 to Nov. 1, 1940-1955
571	MENTOR HARBOR YACHT CLUB RANGE FRONT LIGHT. F. W.	On point, inner harbor 41 43.5 81 21.0		.....	White pile .....	Private aid maintained from Apr. 15 to Nov. 1, 1962
572	MENTOR HARBOR YACHT CLUB RANGE REAR LIGHT. F. W.	On shore, 465 feet 142' from front light.		.....	White pile.....	Private aid maintained from Apr. 15 to Nov. 1, 1962
573	CHAGRIN WEST PIER LIGHT ... F. R.	On west bank at mouth of Chagrin River. 41 40.6 81 26.3		.....	.....	Private aid maintained from May 1 to Oct. 31.
573.10	CHAGRIN WEST PIER INNER LIGHT. F. R.	On inner end of pier ..		.....	On pile .....	Private maintained from May 1 to Oct. 1.

## SOUTH SIDE

## LAKE ERIE, OHIO

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water	(6) Structure Daymark	(7) Remarks Year
574	EASTLAKE INTAKE BREAKWATER LIGHT. Occ. R., 2.5 <sup>s</sup> (2 <sup>bl</sup> )	On outer bend of breakwater off power plant west of mouth of Chagrin River. 41 40.5 81 26.5	.....	18	Red pipe column .....	Private aid maintained from April 15 to Dec. 1. 1953
	Oksiloff Special Purpose Buoys A, B.	In 6 feet .....	.....	.....	Orange and white horizontal bands worded "SUBMERGED JETTY".	Private aid maintained from May 1 to Nov. 1.
	(Chart 14826)					
	Euclid Intake Buoy.....	In 13 feet, marks water intake. 41 37.5 81 30.8	.....	.....	Red and black horizontal bands; spar.	Private aid.
	Lakeside & Forest City Yacht Club Race Marker B.	41 39.2 81 33.6	.....	.....	Orange and white horizontal bands.	Private aid. White reflector. Maintained from May 1 to Nov. 1.
575	WILDWOOD PARK EAST PIERHEAD LIGHT. Fl. G., 4 <sup>s</sup>	On end of pierhead ...	.....	18	White pile .....	Private aid maintained from Apr. 15 to Nov. 1. 1958
576	WILDWOOD PARK WEST PIERHEAD LIGHT. Fl. R., 4 <sup>s</sup>	On end of pierhead ..	.....	18	White pile .....	Private aid maintained from Apr. 15 to Nov. 1. 1958
577	EUCLID BEACH PIER LIGHT .... F. G.	On outer end of pier .. 41 35.2 81 24.2	.....	16	Pipe .....	Private aid maintained from Apr. 15 to Dec. 1. 1957
	Lakeside & Forest City Yacht Club Race Marker C.	41 35.5 81 35.1	.....	.....	Orange and white horizontal bands.	Private aid. White reflector. Maintained from May 1 to Nov. 1.
578	NORTHEAST YACHT CLUB OUTER LIGHT. F. R.	On east end of north breakwall. 41 34.4 81 35.1	.....	20	White pile .....	Private aid maintained from May 1 to Nov. 1. 1952
579	NORTHEAST YACHT CLUB INNER LIGHT. F. G.	On north end of east breakwall.	.....	20	White pile .....	Private aid maintained from May 1 to Nov. 1. 1952
	Dugway Creek Obstruction Buoy A.	In 12 feet .....	.....	.....	Orange and white horizontal bands, orange diamond, worded "SUBMERGED PILING".	
	Dugway Creek Obstruction Buoy B.	In 12 feet .....	.....	.....	Orange and white horizontal bands, orange diamond, worded "SUBMERGED PILING".	
	Lakeside & Forest City Yacht Club Race Marker A.	41 37.9 81 41.5	.....	.....	Orange and white horizontal bands.	Private aid. White reflector. Maintained from May 1 to Nov. 1.
580	CLEVELAND WATERWORKS INTAKE CRIB LIGHT. Gp. Fl. W., 10 <sup>s</sup> 1 <sup>fl.</sup> , 1 <sup>sec.</sup> 1 <sup>fl.</sup> , 7 <sup>sec.</sup> 2 flashes.	In 54 feet, 3/4 miles off entrance to Cleveland Harbor. 41 32.9 81 45.0	.....	9 55	Gray square house on red cylindrical crib.	HORN: 1 blast ev 30 <sup>s</sup> (3 <sup>bl</sup> ). Private aid. 1898
581	Cleveland Intake Lighted Buoy 2. Fl. W., 4 <sup>s</sup>	In 48 feet, marks water intake.	.....	.....	Red .....	Private aid. Nun, winter marker.

## CLEVELAND HARBOR

## LAKE ERIE, OHIO

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.		(4) Nominal Range	(5) Ht. above water	(6) Ht. above ground Structure	(7) Daymark Remarks Year
(Chart 14839)							
	Gordon Park Breakwater Buoy 3	In 23 feet				Black can	White reflector. Private aid maintained from May 15 to Oct. 15.
	Gordon Park Breakwater Buoy 5	In 23 feet				Black can	White reflector. Private aid maintained from May 15 to Oct. 15.
	Gordon Park Breakwater Buoy 7	In 22 feet				Black can	White reflector. Private aid maintained from May 15 to Oct. 15.
582	Gordon Park Entrance Lighted Buoy 9. Qk. Fl. G.	In 24 feet, marks southwest end of breakwater.				Black	Private aid maintained from May 1 to Dec. 1.
583	GORDON PARK BOAT BASIN ENTRANCE NORTH LIGHT. Fl. R., 4 <sup>s</sup>	On end north breakwater.	41 32.6 81 38.3		18	White structure	Private aid maintained during small boat navigation season. 1958
584	GORDON PARK BOAT BASIN ENTRANCE SOUTH LIGHT. Fl. G., 4 <sup>s</sup>	On end of south breakwater.			18	White structure	Private aid maintained during small boat navigation season. 1958
585	—EAST ENTRANCE LIGHT Fl. R., 10 <sup>s</sup>	On northeast end of breakwater, north west side of entrance to East Basin.	41 32.6 81 39.1		21 59	White skeleton tower, inclosed top.	Submarine cable to shore, do not anchor near. 1915
586	—East Basin Channel Lighted Buoy 1. Fl. G., 4 <sup>s</sup>	In 27 feet			4	Black	Ra ref.
587	—East Basin Channel Buoy 2 —EAST BASIN ENTRANCE LIGHT. Fl. G., 4 <sup>s</sup>	In 25 feet On northwest corner of bulkhead.				Red nun 10	Red reflector. Private aid maintained from April 15 to Nov. 1. 1958
588	—East Basin Channel Lighted Buoy 5. Fl. W., 4 <sup>s</sup>	In 25 feet			6	Black	Ra ref.
589	—East Basin Channel Lighted Buoy 6. Fl. R., 4 <sup>s</sup>	In 25 feet			4	Red	Ra ref.
589.50	—EAST BASIN DIKE LIGHT 2. Fl. R., 4 <sup>s</sup>	Marks southeast corner of disposal dike.			5	10 TR on skeleton tower.	1976
591	LAKESIDE YACHT CLUB ENTRANCE NORTH LIGHT. E. Int. G., 8 <sup>s</sup>	On west end harbor breakwall.			7	White pipe stanchion	White reflector. Private aid maintained from Mar. 1 to Dec. 1. 1956
592	LAKESIDE YACHT CLUB ENTRANCE SOUTH LIGHT E. Int. R., 8 <sup>s</sup>	On shore			7	White pipe stanchion	White reflector. Private aid maintained from Mar. 1 to Dec. 1. 1956
	—East Basin Channel Buoy 7	In 25 feet				Black can	Green reflector
	—East Basin Channel Buoy 8	In 25 feet				Red nun	Red reflector.
	—East Basin Channel Buoy 9	In 25 feet				Black can	Green reflector.
593	—East Basin Channel Lighted Buoy 10. Fl. R., 4 <sup>s</sup>	In 25 feet			4	Red	
594	—East Basin Channel Lighted Buoy 11. Fl. G., 4 <sup>s</sup>	In 25 feet			4	Black	Ra ref.
	—East Basin Channel Buoy 12	In 23 feet				Red nun	Red reflector.
595	—East Basin Channel Lighted Buoy 14. Fl. R., 4 <sup>s</sup>	In 23 feet			4	Red	
596	—West Pierhead Light Alt. Fl. W. & R., 10 <sup>s</sup> 0.4 <sup>W</sup> .fl., 4.6 <sup>ec</sup> . 0.4 <sup>R</sup> .fl., 4.6 <sup>ec</sup> .	On outer pierhead, main entrance to harbor.	41 30.5 81 43.1		24W 19R	63 White conical tower with fog signal building attached.	RBN: 294 kHz (•••••) I. Antenna at light tower. HORN: 2 blasts ev 30° (2 <sup>bl</sup> -2 <sup>si</sup> -2 <sup>bl</sup> -24 <sup>si</sup> ). Tower floodlighted from sunset to sunrise. 1911

## CLEVELAND HARBOR

## LAKE ERIE, OHIO

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water	(6) Structure Ht. above ground	(7) Daymark Remarks Year
597	— EAST PIERHEAD LIGHT ..... E. Int. G., 6 <sup>s</sup>	On outer pierhead, main entrance to harbor.		8	39 31	White conical tower ..... 1911
598	— EAST BREAKWATER LIGHT .. Fl. G., 4 <sup>s</sup>	On northeast side of main entrance.		4	38	White skeleton tower, with inclosed base. 1892-1911
599	— WEST BREAKWATER LIGHT .. Fl. R., 4 <sup>s</sup>	At southwest side of main entrance.		5	33	White skeleton tower, with inclosed base. 1885-1931
600	— EAST PIER LIGHT ..... F. G.	On pier, near outer end.		9	36	White square skeleton tower, with inclosed base. 1869-1936
601	— WEST PIER LIGHT ..... F. R.	On pier, near outer end.		9	36	White skeleton tower on small house, with inclosed base. 1831-1917
601.50	JEFFERSON AVENUE EAST ABUTMENT LIGHT. F. G.	On bridge abutment.				Gray bridge abutment ..... Private aid maintained from May 15 to Nov. 30. 1972
601.51	JEFFERSON AVENUE WEST ABUTMENT LIGHT. F. R.	On bridge abutment.				Gray bridge abutment ..... Private aid maintained from May 15 to Nov. 30. 1972
602	— WEST BASIN DOCK LIGHT ... Fl. G., 6 <sup>s</sup> (2M)	On northeast end of Pennsylvania Railroad Dock.			12	Black and white striped diamond daymark on white column. Private aid maintained from Mar. 15 to Dec. 15. 1957
603.10	EDGEWATER PARK OUTER LIGHT 1. Fl. G., 4 <sup>s</sup>	On end of outer east breakwall. 41 29.8 81 43.7		5	24	SG on H-beam pile..... 1974
604.10	EDGEWATER PARK WEST LIGHT 2. Gp. Fl. R., 5 <sup>s</sup> (2I)	On west breakwall ..		5	21	TR on H-beam pile ..... 1974
605.10	EDGEWATER PARK INNER LIGHT. Fl. W., 2.5 <sup>s</sup>	On west end of spur breakwall.		4	24	NR on H-beam pile ..... 1974
SOUTH SIDE (Chart 14826)						
606	ROCKY RIVER OUTER LIGHT ... Fl. G., 6 <sup>s</sup>	On outer end of east pier. 41 29.5 81 50.3		9	35	White skeleton tower on small house, with inclosed base. Higher intensity beam in a westerly direction. 1941
607	ROCKY RIVER INNER LIGHT .... F. G.	Near the inner end of the east pier.		9	47	White pile ..... 1941
608	Crown Intake Lighted Buoy ..... I. Qk. Fl. W.	In 44 feet ..... 41 31.1 81 53.0				Black and red horizontal bands. Private aid. Can winter marker.
609	AVON INTAKE BREAKWATER LIGHT. Fl. W., 2.5 <sup>s</sup>	On northern bend of intake breakwater. 41 30.4 82 03.2		8	18	White tripod ..... Private aid maintained from Apr. 15 to Dec. 1. 1927-1950
	Kansas Avenue Buoy.....	In 6 feet, marks sub- merged piling ex- tending off shore. 41 28.6 82 09.6				Black and red horizontal bands; can. Private aid.
LORAIN HARBOR (Chart 14841)						
610	— LIGHT..... Fl. W., 5 <sup>s</sup>	On west end of de- tached breakwater.		27	60	White tower..... Reduced intensity toward shore. HORN: 1 blast ev 10 <sup>s</sup> (1 <sup>st</sup> bl). 1966 1965
611	—DETACHED BREAKWATER EAST LIGHT. Fl. W., 2.5 <sup>s</sup>	On end of breakwater.		7	25	TR white column ..... 1965
612	—EAST BREAKWATER LIGHT ... Fl. G., 2.5	On east side of entrance to harbor.		6	37	SB on white skeleton tower with small white house. Higher intensity lakeward. 1909-1914

## SOUTH SIDE

## LAKE ERIE, OHIO

(1)	(2)	(3)		(4)	(5)	(6)	(7)
No.	Name	Location		Nominal Range	Ht. above water	Structure	Remarks
No.	Characteristic	Lat. N.	Long. W.		Ht. above ground	Daymark	Year
<b>LORAIN HARBOR</b>							
613	— WEST BREAKWATER LIGHT ... F. R.	On west side of entrance to harbor. 41 28.6 82 11.5		9	58	White square tower on southeast corner of square building. 51	Tower floodlighted from sunset to sunrise. 1909-1919
	Lorain Harbor Buoy 1 .....	In 28 feet, marks edge of 28 foot project limit.				Black can .....	White reflector.
614	— EAST PIER LIGHT .....	On pier, near outer end, east side of inner entrance.		8	32	SB on white skeleton tower, with small white house.	1919
615	— WEST PIER LIGHT .....	On pier, near outer end, west side of inner entrance.		6	32	TR on white skeleton tower, with small house.	1836-1922
616	— EAST BREAKWATER MIDDLE LIGHT. Fl. W., 4 <sup>s</sup>	On end of shore arm, marks gap in breakwater.		8	25	SB on white column .....	1964
617	U. S. STEEL CORPORATION MOORING CELL LIGHT. Q. Fl. R.	In 27 feet .....			19	Sheet piling mooring cell. ....	Private aid. 1968
South Side (Chart 14826)							
<b>BEAVER CREEK</b>							
618	— EAST OUTER LIGHT .....	On point .....			25	Pile .....	Private aid maintained from May 1 to Oct. 31. 1958
619	— EAST INNER LIGHT .....	On east side of entrance.			15	Pile .....	Private aid maintained from May 1 to Oct. 31. 1958
620	— RANGE FRONT LIGHT .....	On end of breakwater.			15	Pipe .....	Private aid maintained from May 1 to Oct. 31. 1958
621	— RANGE REAR LIGHT .....	124' from front light.			39	Pile .....	Private aid maintained from May 1 to Oct. 31. 1958
	Lakeview Park Obstruction Buoy A.	In 8 feet .....				Orange and white horizontal bands worded DANGER.	Private aid. Maintained from May 1 to Sept. 30.
	Lakeview Park Obstruction Buoy B.	In 8 feet .....				Orange and white horizontal bands worded DANGER.	Private aid. Maintained from May 1 to Sept. 30.
<b>Vermilion</b>							
621.50	— DETACHED BREAKWATER LIGHT A. Qk. Fl. W.	Marks east end of breakwater.		4	25	NR on pile .....	1974
621.60	— DETACHED BREAKWATER LIGHT B. Fl. W., 6 <sup>s</sup>	Marks middle of breakwater.		8	30	NR on pile .....	1974
621.70	— DETACHED BREAKWATER LIGHT C. Qk. Fl. W.	Marks west end of breakwater.		4	25	NR on pile .....	1974
	— Entrance Buoy 1 .....	In 12 feet, marks east entrance.				Black can .....	White reflector.
	— Entrance Buoy 2 .....	In 9 feet, marks SW corner of west entrance.				Red nun .....	Red reflector.
	— Entrance Buoy 3 .....	In 13 feet, marks SE corner of east entrance.				Black can .....	White reflector.
622	— EAST PIERHEAD LIGHT 5 Fl. G., 4 <sup>s</sup>	On outer end of east pier.		4	22	SB on pile .....	1940-1974

## SOUTH SIDE

## LAKE ERIE, OHIO

(1)	(2)	(3)		(4)	(5)	(6)	(7)		
No.	Name	Location	Nominal Range	Ht. above water	Ht. above ground	Structure	Daymark	Remarks	Year
<b>Vermilion</b>									
623	— WEST PIERHEAD LIGHT 4 . . . . . Fl. R., 4 <sup>s</sup>	On west pier, near outer end.		4	26	TR on skeleton tower . . . . .			1847-1929
		41 25.7 82 21.8							
623.50	— HARBOR LIGHT 7 . . . . . F. G.	177', 1090 feet from West Outer Light.		3	35	SW on single pile . . . . .		Higher intensity up chan- nel.	1972
	— Shoal Buoy . . . . .	In 10 feet, marks south edge of shoal.				Red and black horizontal bands; nun.		Red reflector.	
	— Outer Intake Buoy . . . . .	In 12 feet, marks submerged water intake crib.				Black and red horizontal bands; can.		Private aid.	
	— Crib Buoy . . . . .	In 12 feet, marks submerged water- works crib, near entrance to harbor.				Black and red horizontal bands; can.		Private aid.	
<b>Huron Harbor (Chart 14843)</b>									
624	— Light . . . . . Fl. R., 5 <sup>s</sup>	On west pierhead . . . . . 41 24.3 82 32.6		14	80	White square pyramidal tower . . . . . 72		HORN: 2 blasts ev 30 <sup>s</sup> (2 <sup>bl</sup> -2 <sup>ai</sup> -2 <sup>bl</sup> -24 <sup>ai</sup> ). Emergency Light Fl. R., 6 <sup>s</sup> . 1835-1936	
625	— Entrance Lighted Buoy 1 . . . . . Fl. W., 6 <sup>s</sup>	In 25 feet . . . . . 41 24.5 82 32.2		7		Black . . . . .		Ra ref.	
	— Entrance Buoy 2 . . . . .	In 25 feet . . . . .				Red nun . . . . .		Ra ref. Red reflector. Nun, winter marker.	
	— Entrance Buoy 3 . . . . .	In 25 feet, opposite Huron Light.				Black can . . . . .		Ra ref. White reflector. Can; winter marker.	
626	— EAST BREAKWATER LIGHT . . . . . Fl. G., 4 <sup>s</sup>	On north end of breakwater.		5	25	SB on white pile . . . . .			
627	— INNER LIGHT . . . . . F. R.	At bend of west pier . . . . .		8	71	TR on white skeleton tower . . . . .			1919
628	— INNER EAST LIGHT . . . . . Fl. W., 4 <sup>s</sup>	On point at entrance to Hudson River. 41 23.9 82 32.9		6	25	SB on white column . . . . .		Higher intensity lakeward.	1959
628.50	HURON RIVER MOORING BASIN NORTH LIGHT. F. R.	On north finger dock . . . . .			15	On pile . . . . .		Private aid. Maintained from May 1 to Oct. 1.	
628.51	HURON RIVER MOORING BASIN SOUTH LIGHT. F. W.	On south finger dock . . . . .			15	On pile . . . . .		Private aid. Maintained from May 1 to Oct. 1.	
<b>SANDUSKY HARBOR (Chart 14845)</b>									
629	— PIERHEAD LIGHT . . . . . Fl. W., 7.5 <sup>s</sup>	On east end of jetty. 41 30.0 82 40.5		18	66	White skeleton tower, inclosed top on concrete crib. 55		RBN: 306 kHz (m s e m) II. Antenna 6,700 feet 233'30" from light tower HORN: 1 blast ev 30 <sup>s</sup> (3 <sup>bl</sup> ). 1921-1926	
<b>MOSELEY CHANNEL</b>									
630	— RANGE FRONT LIGHT . . . . . F. G.	On axis of channel . . . . . 41 29.2 82 42.3			34	White daymark on white skeleton tower with small white house on concrete crib.		Passing light visible around horizon.	1900-1926
631	— RANGE REAR LIGHT . . . . . F. G.	2,625 feet 237' from front light.			67	White daymark on white skeleton tower on concrete crib.		Passing light visible around horizon.	1900
632	— Lighted Bell Buoy 1 . . . . . Fl. W., 4 <sup>s</sup>	In 26 feet . . . . .		6		Black . . . . .		Ra ref.	
633	— Lighted Buoy 2 . . . . . Fl. R., 4 <sup>s</sup>	In 26 feet . . . . .		4		Red . . . . .		Ra ref.	

## SANDUSKY HARBOR

## LAKE ERIE, OHIO

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water Ht. above ground	(6) Structure Daymark	(7) Remarks Year
MOSELEY CHANNEL						
634	— Buoy 3 — Lighted Buoy 4 Fl. R., 4 <sup>s</sup>	In 20 feet In 21 feet, at north side of entrance to channel.	4	4	Black can Red	White reflector. Ra ref. Ra ref. Nun with red reflector; winter marker.
634.50	— Lighted Buoy 5 Fl. W., 4 <sup>s</sup>	In 26 feet		7	Black	Ra ref.
635	— Buoy 6 Fl. R., 4 <sup>s</sup>	In 26 feet		4	Red	Ra ref; nun winter marker.
636	— Buoy 8 — Lighted Buoy 9 Qk. Fl. W.	In 26 feet In 42 feet		6	Red nun Black	Red reflector. Ra ref.
	— Buoy 10	In 20 feet, marks outer limit of shoal on north side of channel.			Red nun	Red reflector.
SANDUSKY STRAIGHT CHANNEL						
637	— INNER RANGE FRONT LIGHT. F. R. F. R.	On axis of channel, at junction of west jetty and Sand Point dike. 41 29.5 82 41.8		30	KRW on red skeleton tower with small red house on concrete crib.	Passing light visible around horizon. Submarine cable to a point just east of Coast Guard Wharf on Cedar Point. Do not anchor. 1896-1926
638	— INNER RANGE REAR LIGHT F. R. F. R.	1,500 feet 017' from front light.		54	KRW on skeleton tower on con- crete crib.	Passing light visible around horizon. 1896
639	— Lighted Buoy 11 Qk. Fl. W.	In 21 feet		5	Black	Ra ref. Can; winter marker.
640	— Lighted Buoy 12 Fl. R., 4 <sup>s</sup>	In 22 feet		4	Red	Nun with red reflector; winter marker.
641	— Lighted Buoy 13 Fl. W., 4 <sup>s</sup>	In 18 feet		6	Black	
642	— Lighted Buoy 14 Fl. R., 4 <sup>s</sup>	In 21 feet		4	Red	Ra ref. Nun; winter marker.
	Sandusky Exit Channel Junction Buoy	In 21 feet			Red and black horizontal bands; nun.	Red reflector.
643	— Buoy 15 — Lighted Buoy 16 Fl. R., 4 <sup>s</sup>	In 18 feet In 17 feet		4	Black can Red	White reflector. Ra ref. Nun with red reflector; winter marker.
SANDUSKY DOCK CHANNEL						
644	— Lighted Buoy 18 Fl. R., 4 <sup>s</sup>	In 18 feet, at bend in channel abreast B. & O. R. R. Piers.		4	Red	Ra ref. Nun; winter marker.
645	— Lighted Buoy 20 Fl. R., 4 <sup>s</sup>	In 18 feet		4	Red	
646	— LIGHT F. G.	Foot of McDonough Street.		9 19	Black pipe	1937
647	— Lighted Buoy 21 Fl. W., 4 <sup>s</sup>	In 20 feet		6	Black	Ra ref. Can; winter marker.
648	— Lighted Buoy 22 Fl. R., 4 <sup>s</sup>	In 20 feet		4	Red	Ra ref. Nun; winter marker.
649	Sandusky Turning Basin Buoy 23 SANDUSKY HARBOR TURNING BASIN LIGHT Fl. W., 2.5 <sup>s</sup>	In 18 feet On southwest end of dike.		6	Black can White column	Green reflector. 1965

## SANDUSKY HARBOR

## LAKE ERIE, OHIO

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water	(6) Structure Daymark	(7) Remarks Year
<b>SANDUSKY EXIT (BAY) CHANNEL</b>						
651	— Buoy 9 .....	In 21 feet .....			Black can .....	Green reflector.
	— Lighted Buoy 7 .....	In 21 feet .....		6	Black .....	Ra ref. Can; winter marker.
	Fl. W., 4 <sup>s</sup> .....					
652	— Buoy 8 .....	In 21 feet .....			Red num. ....	Red reflector.
	— RANGE FRONT LIGHT .....	In 9 feet .....		26	KRW on skeleton tower, with inclosed base, on steel sheet pile foundation.	Visible on rangeline only. Passing light visible around horizon.
	F. G. ....	41 28.5 82 42.1				1939
	F. G. ....					
653	— RANGE REAR LIGHT .....	In 8 feet, 1,000 feet 064' from front light.		45	KRW on skeleton tower with small house, on sheet pile foundation.	Visible on rangeline only. Passing light visible around horizon.
653.50	— Lighted Buoy 6 .....	In 21 feet .....		5	Red .....	Ra ref.
	Fl. R., 4 <sup>s</sup> .....					
654	— Lighted Buoy 5 .....	In 21 feet .....		6	Black .....	Ra ref. Can; winter marker.
	Fl. W., 4 <sup>s</sup> .....					1939
655	— Lighted Buoy 4 .....	In 21 feet .....		4	Red .....	Ra ref.
	Fl. R., 4 <sup>s</sup> .....					
656	— Lighted Buoy 3 .....	In 21 feet .....		6	Black .....	Ra ref.
	Fl. W., 4 <sup>s</sup> .....					
657	— Lighted Buoy 2 .....	In 21 feet .....		4	Red .....	Ra ref. Nun; winter marker
	Fl. R., 4 <sup>s</sup> .....					
658	CEDAR POINT MARINA ENTRANCE NORTH LIGHT. F. G.	On end of outer breakwater.		15		Private aid maintained from Mar. 1 to Dec. 15. 1959
659	CEDAR POINT MARINA ENTRANCE SOUTH LIGHT. F. R.	On end of inner breakwater.		15		Private aid maintained from Mar. 1 to Dec. 15. 1959
660	CEDAR POINT MARINA BREAKWATER LIGHT. F. W.	On angle of inner breakwater.		15		Private aid maintained from Mar. 1 to Dec. 15. 1959
661	CEDAR POINT MARINA SOUTH BASIN EAST LIGHT. Fl. R., 2.5 <sup>s</sup>	On end of breakwater.		22	White pile .....	Private aid maintained from 1 Apr. to 15 Nov. 1968
662	CEDAR POINT MARINA SOUTH BASIN WEST LIGHT. Fl. G., 2.5 <sup>s</sup>	On end of breakwater.		22	White pile .....	Private aid maintained from 1 Apr. to 15 Nov. 1968
(For Straight Channel, see No. 637)						
663	SADLER SAILING BASIN ENTRANCE LIGHT 1. F. G.	On north end of south breakwater.			Pipe .....	Private aid.
664	SADLER SAILING BASIN ENTRANCE LIGHT 2. F. R.	On south end of north breakwater.			Pipe .....	Private aid.
665	SANDUSKY SLUDGE BASIN LIGHT. Occ. R., 3 <sup>s</sup> (2 <sup>sh</sup> )	On northeast corner of Sludge Basin Wall.		13	White pipe .....	Private aid. 1937
<b>SANDUSKY BAY</b>						
666	EAST COVE JETTY LIGHT .....	On northly end of stone jetty.		6	Green pipe .....	Private aid maintained from Mar. 15 to Dec. 15. 1954
	F. G. ....	41 27.6 82 41.9				
668	CAUSEWAY RANGE FRONT LIGHT F. G.	On west side of Cedar from front light.		7	Black pile .....	Private aid maintained from May 1 to Nov. 1. 1966
669	CAUSEWAY RANGE REAR LIGHT. F. G.	6,190 feet 099.5 <sup>s</sup> Point Causeway.		35	Black pile .....	Private aid maintained from May 1 to Nov. 1. 1966

## SANDUSKY HARBOR

## LAKE ERIE, OHIO

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Hr. above water	(6) Structure Hr. above ground Daymark	(7) Remarks	Year
SANDUSKY BAY CHANNEL							
669.50	SANDUSKY MUNICIPAL CRIB LIGHT. Qk. Fl. W.	On crib 41 27.3 82 39.9		5		Private aid.	1975
670	BATTERY PARK RANGE FRONT LIGHT. F. R.	At entrance to East Battery Park Basin.		12	Black pipe	Private aid.	1930
671	BATTERY PARK RANGE REAR LIGHT. F. R.	36 feet 153' from front light.		15	Black pipe	Private aid.	1930
(Chart 14842)							
672	— TRANSMISSION LINE LIGHT A. Fl. W., 3 <sup>s</sup>	On pier supporting tower carrying transmission line. 41 28.9 82 49.3		15	White skeleton tower on concrete pier.	Private aid.	1926
673	— TRANSMISSION LINE LIGHT B. Fl. W., 3 <sup>s</sup>	On pier supporting tower carrying transmission line.		15	White skeleton tower on concrete pier.	Private aid.	1926
674	Willow Point Lighted Buoy 1 Fl. W., 7 <sup>s</sup>	In 4 feet 41 26.7 82 53.2				Private aid maintained from Apr. 15 to Nov. 15. Green reflector.	
675	Willow Point Lighted Buoy 3 Fl. W., 7 <sup>s</sup>	In 4 feet 41 26.7 82 53.4				Private aid maintained from Apr. 15 to Nov. 15. Green reflector.	
676	Willow Point Lighted Buoy 5 Fl. W., 7 <sup>s</sup>	In 4 feet 41 26.5 82 53.5				Private aid maintained from Apr. 15 to Nov. 15. Green reflector.	
	— Buoy 1				Black can	Ra ref. Green reflector.	
	— Buoy 3				Black can	Green reflector.	
	— Buoy 4				Red nun	Red reflector.	
	— Buoy 5				Black can	Green reflector.	
	— Buoy 6				Red nun	Red reflector.	
MUDDY CREEK							
	— Buoy 7				Black can	Green reflector.	
	— Buoy 8				Red nun	Red reflector.	
	— Buoy 9				Black can	Green reflector.	
	— Buoy 10				Red nun	Red reflector.	
	— Buoy 11				Black can	Green reflector.	
677	SQUAW ISLAND LIGHT 12 Fl. R., 4 <sup>s</sup>	On southeast end of Island.		6 25	TR on white skeleton tower	Higher intensity beam lakeward.	1968
SANDUSKY RIVER							
	— Buoy 13	In 7 feet			Black can	Green reflector.	
	— Buoy 13A	In 8 feet			Black can	Green reflector.	
	— Buoy 14	In 14 feet			Red nun	Red reflector.	
	— Buoy 15				Black can	Green reflector.	
	— Buoy 16				Red nun	Red reflector.	
	— Buoy 17				Black can	Green reflector.	
	— Buoy 19				Black can	Green reflector.	
	— Buoy 20				Red nun	Red reflector.	
	— Buoy 21				Black can	Green reflector.	
	— Buoy 22				Red nun	Red reflector.	
	— Buoy 24				Red nun	Red reflector.	

SOUTH PASSAGE TO  
MAUMEE BAY

## LAKE ERIE, OHIO

(1)	(2)	(3)		(4)	(5)	(6)	(7)			
No.	Name Characteristic	Lat. N.	Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure	Daymark	Remarks	Year
(Charts 14844, 14842)										
678	Bay Point Shoal Lighted Buoy 2 ... Fl. R., 4 <sup>s</sup>	In 14 feet, marks easterly edge of shoal.		4	....	Red	.....		Ra ref.	
679	BAY POINT MARINA EAST LIGHT. E. Is. W., 3 <sup>s</sup>	On outer end of jetty.		.....	10	Black pile	.....		Private aid maintained from May 15 to Nov. 15.	
	Bay Point Marina East Entrance Buoy 1.	In 5 feet		.....	.....	Black spw.	.....		Green reflector. Private aid maintained from May 15 to Nov. 15.	
	Bay Point Marina East Entrance Buoy 3.	In 5 feet		.....	.....	Black spw.	.....		Green reflector. Private aid maintained from May 15 to Nov. 15.	
680	BAY POINT MARINA WEST LIGHT. E. Is. W., 3 <sup>s</sup>	On westerly end of small point at Sandusky Bay entrance.		.....	10	Black pile	.....		Private aid maintained from May 15 to Nov. 15.	
681	Marblehead Light Fl. G., 6 <sup>s</sup>	On northeast end of point. 41 32.2 82 42.7		.....	7	67	White conical tower	.....		1821
682	TURINSKY BOAT BASIN SOUTH LIGHT. Qk. Fl. W.	On end of breakwater. 41 32.4 82 42.9		.....	.....	14	.....		Private aid maintained from May 1 to Dec. 1. Dec. 1, 1964	
683	TURINSKY BOAT BASIN NORTH LIGHT. Qk. Fl. W.	On north corner of breakwater.		.....	.....	14	.....		Private aid maintained from May 1 to Dec. 1, 1964	
684	STANDARD SLAG DOCK LIGHT .. 2 F. R.	..... 41 32.7 82 43.8		.....	.....	18	.....		Private aid. 1949	
685	LAKESIDE ASSOCIATION DOCK LIGHTS- 2 F. R.	On end of pier		.....	.....	10	Pipe	.....	Private aid maintained from Apr. 15 to Nov. 1. 1964	
685.50	MEJ CORPORATION BREAK- WATER LIGHT. F. G.	On west end of breakwater.		.....	.....	35	On pile	.....	Private aid maintained from Mar. 15 to Dec. 15.	
686	MEJ CORPORATION PIERHEAD LIGHT. Qk. Fl. W.	On north end outer pier.		.....	.....	25	White structure	.....	Private aid maintained from May 1 to Dec. 1. 1961	
687	LAKESIDE SMALL BOAT HARBOR EAST BREAKWATER LIGHT. F. W.	On end of breakwater. 41 32.6 82 46.1		.....	.....	.....	White pile	.....	Private aid maintained from Apr. 20 to Oct. 20 1962	
688	LAKESIDE SMALL BOAT HARBOR WEST BREAKWATER LIGHT. F. R.	On end of breakwater		.....	.....	15	White pile	.....	Private aid maintained from Apr. 20 to Oct. 20 1962	
689	BILLINGS ENTRANCE EAST LIGHT. F. W.	In 6 feet on east side of entrance. 41 32.4 82 46.4		.....	.....	4	White pile	.....	Private aid maintained from May 1 to Sept. 30. 1955	
690	BILLINGS ENTRANCE WEST LIGHT. F. R.	In 6 feet, on west side of entrance.		.....	.....	4	Red pile	.....	Private aid maintained from May 1 to Sept. 30. 1955	
691	EAST HARBOR ENTRANCE LIGHT 1. Fl. G., 4 <sup>s</sup>	On outer end of south- east pier.		.....	.....	14	Pile	.....	Private aid maintained from Apr. 1 to Nov. 1. 1964	
692	EAST HARBOR ENTRANCE LIGHT. Fl. R., 4 <sup>s</sup>	On outer end of north- west pier. 41 32.6 82 47.0		.....	.....	14	Pile	.....	Private aid maintained from Apr. 1 to Nov. 1. 1961-1964	
693	MARINE CITY DOCK LIGHT .....	On end of dock .....		.....	.....	24	Mast	.....	Private aid maintained from Apr. 1 to Dec. 1. 1965	
693.50	Middle Harbor Shoal Lighted Buoy 1. Fl. W., 4 <sup>s</sup>	In 12 feet, marks shoal. 41 34.2 82 47.7		.....	6	....	Black	.....		
694	JIM'S PLACE EAST LIGHT .....	East side of entrance to marina.		.....	.....	10	Pyramidal structure	.....	Private aid maintained from May 1 to Nov. 1. 1961	

SOUTH PASSAGE TO  
MAUMEE BAY

## LAKE ERIE, OHIO

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W		(4) Nominal Range	(5) Ht. above water	(6) Ht. above ground Structure Daymark	(7) Remarks Year
695	JIM'S PLACE WEST LIGHT F. R.	West side of entrance to marina.		.....	10	Pyramidal structure .....	Private aid maintained from May 1 to Nov. 1. 1961
696	ANCHOR'S AWAY MARINA ENTRANCE LIGHT. F. G.	East side of entrance to marina.		.....	16	Pile .....	Private aid maintained from Apr. 1 to Dec. 1.
697	ANCHOR'S AWAY MARINA ENTRANCE LIGHT. F. R.	West side of entrance to marina.		.....	16	Pile .....	Private aid maintained from Apr. 1 to Dec. 1.
698	WEST HARBOR SHORES RANGE FRONT LIGHT. Qk. Fl. R.	41 33.1 82 49.4		.....	10	Pile .....	Private aid maintained from May 1 to Nov. 1. 1970
699	WEST HARBOR SHORES RANGE REAR LIGHT. F. R.	175 feet, 100' from front light.		.....	13	Pile .....	Private aid maintained from May 1 to Nov. 1. 1970
700	WEST HARBOR SOUTH EN- TRANCE LIGHT. Fl. G., 1.4 <sup>s</sup>	Marks outer end of south jetty.		.....	20	On dolphin .....	Private aid maintained from Apr. 15 to Dec. 1. 1962-1974
701	WEST HARBOR ENTRANCE LIGHT. Fl. R., 1.4 <sup>s</sup>	On end of north jetty.		.....	10	On pile .....	Private aid maintained from Apr. 15 to Dec. 1. 1953-1974
702	Rock Shoal Lighted Buoy 2 .....	In 22 feet, on end of shoal west of Kelleys Island.		.....	4	Red .....	Ra ref.
703	Scott Point Shoal Lighted Buoy 1 ..	In 20 feet, on north- east part of shoal.		.....	4	Black .....	Ra ref. Can; winter marker.
704	Starve Island Reef Lighted Buoy 2. Fl. W., 6 <sup>s</sup>	In 19 feet, on west side of reef.		.....	6	Red .....	Nun; winter marker.
705	South Bass Island Light .....	On southwest point island. 41 37.7 82 50.5		.....	14	74 NR on white skeleton tower	White reflector. 1987-1976
706	Green Island Light .....	Near west end of island. 41 38.7 82 52.1		.....	8	80 White skeleton tower with small white house. 67	Light obscured by woods from 238° to 273°. 1854-1939
707	Niagara Reef Lighted Buoy 5 .....	In 24 feet, on north side.		.....	6	Black .....	Ra ref. Can; winter marker
WEST END (Chart 14830)							
708	West Sister Island Light .....	On southwest end of island. 41 44.2 83 06.6		.....	7	55 White conical tower..... 53	Light obscured by trees from 210° thru 269°, other scattered trees obscured light at intervals. 1848
(For Maumee Bay, see No. 742)							
709	International Boundary Lighted Bell Buoy A. Fl. W., 6 <sup>s</sup>	In 46 feet .....		.....	7	White and orange horizontal bands.	Ra ref. Can buoy; winter marker.
710	International Boundary Lighted Bell Buoy B. Fl. W., 6 <sup>s</sup>	In 50 feet, at turning point of boundary, north of Vermilion. 41 40.6 82 23.9		.....	7	White and orange vertical stripes.	Ra ref. Can; winter marker.
711	International Boundary Lighted Bell Buoy C. Fl. W., 6 <sup>s</sup>	In 45 feet, 5 miles east of turning point of boundary, south of Middle Island. 41 40.6 82 34.9		.....	7	White and orange vertical stripes.	Ra ref. Can; winter marker.
(Charts 14830, 14844)							
712	Kelleys Island Shoal Lighted Buoy 1. Fl. W. 4 <sup>s</sup>	In 30 feet, northeast end of shoal.		.....	6	Black .....	Ra ref. Can; winter marker.

## WEST END

## LAKE ERIE, OHIO

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water	(6) Structure Ht. above ground Daymark	(7) Remarks Year
	Kelleys Island Shoal Buoy 3	In 24 feet			Black can	White reflector.
	Kelleys Island Buoy 1	In 30 feet, off north- east point of island.			Black can	White reflector.
713	KELLSTONE CRIB LIGHT F. R.	On crib of west coast of Kelleys Island.			On pile	Private aid maintained from May 1 to Dec. 20.
714	Gull Island Shoal Lighted Buoy 4. Fl. R., 4 <sup>s</sup>	In 40 feet, on south end of shoal.		4	Red	Ra ref.
	International Boundary Buoy D	In 35 feet			White and orange horizontal bands can.	Can buoy; winter marker.
	International Boundary Buoy E	41 40.6 82 40.8			Orange and white nun	Ra ref. Nun buoy; winter marker.
	International Boundary Buoy F	41 42.9 82 45.6			Orange and white nun	Ra ref. Nun buoy; winter marker.
	International Boundary Buoy G	41 47.0 82 54.2			Orange and white nun	Ra ref. Nun buoy; winter marker.
	International Boundary Buoy Y	41 49.3 82 58.9			Orange and white nun	Ra ref. Nun buoy; winter marker.
	International Boundary Buoy Y	In 65 feet			Orange and white horizontal bands	Ra ref. Can buoy; winter marker.
715	Middle Bass Island East Shoal Lighted Bell Buoy 1. Fl. W., 4 <sup>s</sup>	In 18 feet, marks easterly limit of shoal.		6	Black	Ra ref. Can; winter marker.
	North Bass Island Shoal Buoy 2	In 21 feet, westerly of island.			Red nun	Ra ref. Red reflector.
716	North Bass Island Lighted Buoy 3. Fl. G., 4 <sup>s</sup>	In 24 feet		4	Black	Ra ref. Can winter marker.
	North Bass Island Buoy 4	In 24 feet			Red nun	Ra ref. Red reflector.
717	North Bass Island Lighted Bell Buoy 6. Fl. R., 4 <sup>s</sup>	41 41.1 82 49.6 In 24 feet		4	Red	Ra ref.
718	BALLAST ISLAND LIGHT Fl. W., 4 <sup>s</sup>	On northeast end of island. 4140.7 82 47.0		7	92 NR on white skeleton tower with small white house.	Obscured 194* to 250*. 1916
718.50	Ballast Island Channel Lighted Buoy 5. Fl. G., 2.5 <sup>s</sup>	In 26 feet, east en- trance to channel.			Black	Ra ref.
	Ballast Island Channel Buoy 6	In 9 feet			Red nun	Ra ref. Red reflector.
	Ballast Island Channel Buoy 7	In 18 feet, near west end of channel.			Black can	White reflector.
719	PERRY MEMORIAL MONUMENT LIGHT. E. Int. W., 6 <sup>s</sup>	On east side of South Bass Island. 41 39.2 82 48.6		15	335 On roof of monument	1940
PUT-IN-BAY						
	— Shoal Buoy 1	In 18 feet, marks a 10-foot shoal.			Black can	Green reflector.
719.10	— DOCK LIGHT F. G.	On west end of dock			14 On pile	Private aid maintained from May 1 to Nov. 1.
720	Peach Orchard Point Lighted Buoy 2. Fl. R., 4 <sup>s</sup>	In 17 feet, off point, in Put-in-Bay.		4	Red	
	— Channel Buoy 2, 3, 4, 6	In 8 feet			Even numbered, red nun; odd numbered, black can.	Even numbered, red reflector; odd numbered, white reflector.
	Oak Point Reed Cut Buoy 1, 2	In 2 feet			Odd numbered, black cylinder; even numbered, red cylinder.	Private aid maintained from 15 Apr. to 15 Nov.
ERIE PROVING GROUND						
	— Buoy A	In 20 feet, marks northwest corner. 41 41.5 83 07.6			White and orange horizontal bands; can.	Ra ref. White reflector.
	— Buoy B	In 27 feet			White and orange horizontal bands; can.	Ra ref. White reflector.

## WEST END

## LAKE ERIE, OHIO

(1) Name	(2) Name Characteristic	(3) Location Lat. N. Long. W.		(4) Nominal Range	(5) Ht. above water	(6) Ht. above ground Structure	(7) Daymark	Remarks	Year
ERIE PROVING GROUND									
— Buoy C		In 29 feet, marks northeast corner.				White and orange horizontal bands; can.		Ra ref. White reflector.	
— Buoy D		In 22 feet				White and orange horizontal bands; can.		Ra ref. White reflector.	
— Buoy E		In 22 feet, marks easterly corner.				White and orange horizontal bands; can.		Ra ref. White reflector.	
WEST END - SOUTH SIDE (Charts 14844, 14842)									
721	Catawba Island Lighted Buoy 1 Fl. W., 4 <sup>s</sup>	In 22 feet 41 34.6 82 52.1			6	Black		Ra ref.	
722	CATAWBA STATE PARK PIER LIGHT. Q. Fl. G.	Southwest end of state Park.			15			Private aid maintained from Mar. 1 to Dec. 15.	1960
723	CATAWBA CLIFFS HARBOR LIGHT. F. R.	On end of south pier at entrance to Yacht Harbor. 41 34.3 82 51.3			12			Private aid.	1953
724	SUGAR ROCK MARINA LIGHT 1. Fl. G., 3 <sup>s</sup>	Marks entrance to harbor.			8	Pile		Private aid maintained from May 1 to Nov. 1.	1966
725	SUGAR ROCK MARINA LIGHT 2. Fl. R., 3 <sup>s</sup>	Marks entrance to harbor.			8	Pile		Private aid maintained from May 1 to Nov. 1.	1966
726	COLONY CLUB MARINA NORTH LIGHT. F. G.	Marks entrance to Marina.			10	White triangular structure		Private aid maintained from Apr. 1 to Nov. 1.	
727	COLONY CLUB MARINA SOUTH LIGHT. F. R.	Marks entrance to Marina.			10	White triangular structure		Private aid maintained from Apr. 1 to Nov. 1.	
PORT CLINTON (Chart 14846)									
729	— LIGHT 2 Occ. R., 4 <sup>s</sup> (3 <sup>1/2</sup> lt)	On outer end of west pier entrance to Port Clinton Harbor. 41 31.1 82 56.2			12	26 TR on white skeleton tower with small white house. 15			1833-1952
730	— EAST PIERHEAD LIGHT 1. E. Int. G., 6 <sup>s</sup>	On end of pier			9	25 SB on aluminum column			1959
	— Channel Buoy 3	In 9 feet				Black can		White reflector.	
	— Channel Buoy 4	In 6 feet				Red nun		Red reflector.	
	— Channel Buoy 5	In 10 feet				Black can		White reflector.	
	— Channel Buoy 6	In 7 feet				Red nun		Red reflector.	
731	NUGENT'S CANAL POINT ENTRANCE WEST LIGHT. F. R.	Marks west side of entrance. 41 30.6 82 59.8				11 White miniature lighthouse 7		Private aid maintained from May 1 to Oct. 1.	1959
732	NUGENT'S CANAL POINT ENTRANCE EAST LIGHT. F. G.	Marks east side of entrance.				11 White miniature lighthouse 7		Private aid maintained from May 1 to Oct. 1.	1959
733	NUGENT'S CANAL POINT LEADING LIGHT. F. R.	On west bank upstream from entrance.				11 White miniature lighthouse 7		Private aid maintained from May 1 to Oct. 1.	1959
(Chart 14830, 14846)									
	— Davis Besse Nuclear Power Plant Obstruction Buoy.	41 36.4 83 03.8				White and orange horizontal bands, orange diamond with SUBMERGED CRIB below.		Private aid. Maintained from Apr. 1 to Nov. 15.	
734	LONG BEACH RANGE FRONT LIGHT. F. G.	1/4 miles east of Turtle Creek entrance. 41 36.7 83 06.8				10 White pipe		Private aid.	1954

## WEST END-SOUTH SIDE

## LAKE ERIE, OHIO

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. Ht. above water ground	(6) Structure Daymark	(7) Remarks	Year
<b>PORT CLINTON</b>							
735	LONG BEACH RANGE REAR LIGHT. F. G.	200 feet 159' from front light.	.....	20	White pile .....	Private aid.	1954
736	WARD CANAL EAST JETTY LIGHT 1. Fl. W., 2.5'	On north end of east jetty.	.....	6 22	SB on pile .....		1973
736.10	WARD CANAL WEST JETTY OUTER LIGHT. F. R.	Marks lakeward end of bulkhead. 41 39.1 83 14.3	.....	25	On pile .....	Private aid maintained from May 1 to Nov. 15.	
736.20	WARD CANAL WEST JETTY INNER LIGHT. F. R.	On bulkhead.....	.....	30	On pile .....	Private aid maintained May 1 to Nov. 15.	
737	COOLEY CANAL EAST BREAK-WATER OUTER LIGHT. F. G.	On outer end of breakwater.	.....	15	White square daymark .....	Private aid maintained from Apr. 15 to Nov. 1.	
738	COOLEY CANAL EAST BREAK-WATER INNER LIGHT. F. G.	On inner end of breakwater.	.....	20	White square daymark .....	Private aid maintained from Apr. 15 to Nov. 1.	1962
739	COOLEY CANAL WEST BREAK-WATER OUTER LIGHT. F. R.	On outer end of breakwater.	.....	15	White square daymark .....	Private aid maintained from Apr. 15 to Nov. 1.	1962
740	COOLEY CANAL WEST BREAK-WATER INNER LIGHT. F. R.	On inner end of breakwater.	.....	20	White square daymark .....	Private aid maintained from Apr. 15 to Nov. 1.	1962
741	TOLEDO WATER WORKS INTAKE CRIB LIGHTS. Qk. Fl. W.	In 16 feet, east of Cedar Point. 41 41.9 83 15.5	.....	50	Gray and buff circular building surmounting crib.	Private aid. Four (4) lights mounted on each corner of crib. Maintained from Apr. 1 to Nov. 15.	
	Toledo Edison Buoy 1 .....	In 12 feet .....	.....	.....	Black can .....	Marks submerged piles Private aid maintained from Apr. 1 to Dec. 1.	
<b>MAUMEE BAY (Chart 14847)</b>							
742	Toledo Harbor Light .....	In 21 feet .....	24W 24R	72	Buff square 3 story brick dwelling, fog-signal house attached. 70	Emergency winter light, Fl. W., 6'. MWR RBN: 320 kHz. Antenna at light tower. HORN: 1 blast ev 30' (3'bl). 1904	
743	— Traffic Lighted Buoy .....	In 29 feet .....	.....	6	.....	Black and white vertical stripe.	Ra ref.
	Mo. (A) W.	41 50.1 83 10.1					
744	— Entrance Lighted Buoy 1 .....	In 25 feet .....	.....	6	.....	Black .....	Ra ref. Can; winter marker.
	Qk. Fl. W.						
745	— Entrance Lighted Bell Buoy 2 .....	In 25 feet .....	.....	4	.....	Red .....	Ra ref. LJB; winter marker.
	Qk. Fl. R.						
	— Buoy 3 .....	In 25 feet .....	.....	.....	.....	Black can .....	Ra ref. White reflector.
	— Buoy 4 .....	In 25 feet .....	.....	.....	.....	Red sun .....	Ra ref. Red reflector.
746	— Lighted Buoy 5 .....	In 25 feet .....	.....	6	.....	Black .....	Ra ref.
	Fl. W., 4'						
747	— Lighted Buoy 6 .....	In 25 feet .....	.....	4	.....	Red .....	Ra ref.
	Fl. R., 4'						
	— Buoy 7 .....	In 25 feet .....	.....	.....	.....	Black can .....	Ra ref. White reflector. Can; winter marker.
	— Buoy 8 .....	In 25 feet .....	.....	.....	.....	Red sun .....	Ra ref. Red reflector. Nun; winter marker.
748	— Lighted Buoy 9 .....	In 25 feet .....	.....	6	.....	Black .....	Ra ref.
	Fl. W., 4'						
749	— Lighted Buoy 10 .....	In 25 feet .....	.....	4	.....	Red .....	Ra ref.
	Fl. R., 4'						

## MAUMEE BAY

## LAKE ERIE, OHIO

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.		(4) Nominal Range	(5) Hr. above water	(6) Structure Ht. above ground Daymark	(7) Remarks Year
	— Buoy 11 .....	In 25 feet .....		.....	.....	Black can .....	Ra ref. White reflector.
	— Buoy 12 .....	In 25 feet .....		.....	.....	Red nun .....	Ra ref. Red reflector.
750	MANHATTAN RANGE FRONT LIGHT. F. R.	On south side of Grassy Point. 41 41.5 83 28.4		.....	40	KRW on skeleton tower 34	Range lighted throughout 24 hours. 1895-1918
751	MANHATTAN RANGE REAR LIGHT. F. R.	0.6 mile, 237½' from front light.		.....	86	KRW on skeleton tower 83	1895-1918
752	— Lighted Buoy 13 .....	In 22 feet .....		.....	6	Black .....	Ra ref.
	Fl. W., 4 <sup>s</sup> .....						
753	— Lighted Buoy 14 .....	In 23 feet .....		.....	5	Red .....	Ra ref. Nun; winter marker.
	Fl. R., 2.5 <sup>s</sup> .....						
	— Buoy 15 .....	In 22 feet .....		.....	.....	Black can .....	White reflector.
	— Buoy 16 .....	In 22 feet .....		.....	.....	Red nun .....	Red reflector.
754	— Lighted Buoy 17 .....	In 21 feet .....		.....	6	Black .....	Ra ref.
	Fl. W., 4 <sup>s</sup> .....						
755	— Lighted Buoy 18 .....	In 21 feet .....		.....	4	Red .....	Ra ref.
	Fl. R., 4 <sup>s</sup> .....						
	— Buoy 19 .....	In 20 feet .....		.....	.....	Black can .....	White reflector.
	— Buoy 20 .....	In 20 feet .....		.....	.....	Red nun .....	Red reflector.
756	— Lighted Buoy 21 .....	In 20 feet .....		.....	6	Black .....	Ra ref.
	Fl. W., 4 <sup>s</sup> .....						
	— Buoy 23 .....	In 20 feet .....		.....	.....	Black can .....	White reflector.
	— Buoy 24 .....	In 19 feet .....		.....	.....	Red nun .....	Red reflector.
757	— Lighted Buoy 25 .....	In 14 feet .....		.....	6	Black .....	Ra ref. Can; winter marker
	Fl. W., 4 <sup>s</sup> .....						
758	— Lighted Buoy 26 .....	In 18 feet .....		.....	4	Red .....	Ra ref.
	Fl. R., 4 <sup>s</sup> .....						
	— Buoy 27 .....	In 18 feet .....		.....	.....	Black can .....	Green reflector.
	— Buoy 28 .....	In 18 feet .....		.....	.....	Red nun .....	Red reflector.
759	— Lighted Buoy 29 .....	In 18 feet .....		.....	6	Black .....	Ra ref.
	Fl. W., 4 <sup>s</sup> .....						
760	— LIGHT 30 .....	In 10 feet, 65 feet out- side channel limit.		.....	5 25	TR on white column .....	Ra ref. Higher intensity beam up and down stream
	Fl. R., 4 <sup>s</sup> .....						
	— Buoy 31 .....	In 20 feet .....		.....	.....	Black can .....	Green reflector.
	— Buoy 32 .....	In 20 feet .....		.....	.....	Red nun .....	Red reflector.
761	— Lighted Buoy 33 .....	In 20 feet .....		.....	6	Black .....	Can; winter marker.
	Fl. W., 4 <sup>s</sup> .....						
762	— Lighted Buoy 34 .....	In 20 feet .....		.....	4	Red .....	Nun; winter marker.
	Fl. R., 4 <sup>s</sup> .....						
	— Buoy 35 .....	In 18 feet .....		.....	.....	Black can .....	Green reflector.
	— Buoy 36 .....	In 18 feet .....		.....	.....	Red nun .....	Red reflector.
763	— Lighted Buoy 37 .....	In 20 feet .....		.....	6	Black .....	
	Fl. W., 4 <sup>s</sup> .....						
764.50	— Lighted Buoy 38 .....	In 20 feet .....		.....	5	Red .....	
	Fl. R., 4 <sup>s</sup> .....						
	— Buoy 39 .....	In 18 feet .....		.....	.....	Black can .....	Green reflector.
	— Buoy 40 .....	In 18 feet .....		.....	.....	Red nun .....	Red reflector.
764.60	DISPOSAL AREA LIGHT A. Gk. Fl. W.	In 18 feet .....		.....	19	On dolphin .....	Private aid. Maintained from Apr. 15 to Dec. 15.
764.70	DISPOSAL AREA LIGHT B. Gk. Fl. W.	In 18 feet .....		.....	19	On dolphin .....	Private aid. Maintained from Apr. 15 to Dec. 15.
765	— Lighted Buoy 41 .....	In 22 feet .....		.....	6	Black .....	Can; winter marker.
	Fl. W., 4 <sup>s</sup> .....						
	— Buoy 42 .....	In 26 feet .....		.....	.....	Red nun .....	Red reflector.
766	— Lighted Buoy 43 .....	In 22 feet .....		.....	6	Black .....	Can; winter marker.
	Fl. W., 4 <sup>s</sup> .....						
767	— Lighted Buoy 45 .....	In 27 feet .....		.....	6	Black .....	Can; winter marker.
	Fl. W., 4 <sup>s</sup> .....						
768	— Lighted Buoy 46 .....	In 28 feet .....		.....	4	Red .....	Nun; winter marker.
	Fl. R., 4 <sup>s</sup> .....						
769	— Lighted Buoy 48 .....	In 22 feet, on north side of channel at bend.		.....	4	Red .....	Nun; winter marker.
	Fl. R., 4 <sup>s</sup> .....						

## MAUMEE BAY

## LAKE ERIE, OHIO AND MICHIGAN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.		(4) Nominal Range	(5) Ht. above water	(6) Structure Ht. above ground Daymark	(7) Remarks	Year
MAUMEE RIVER								
770	— Lighted Buoy 49 Fl. W., 4 <sup>s</sup>	In 24 feet, on south side of channel below bend.			6	Black	Can; winter marker.	
771	Bay View Park Lighted Buoy 50 .. Fl. R., 4 <sup>s</sup>	In 30 feet			4	Red	Nun; winter marker.	
	Toledo Port Terminal Buoy 1	In 2 feet				Black can	White reflector. Private aid maintained from Mar. 1 to Dec. 15.	
	— Buoy 52	In 17 feet				Red sun	Red reflector.	
	Bay View Park Water Gage Buoy ..	In 13 feet				Orange and white horizontally banded drum.	Private aid.	
	Harrison Marine Daybeacons 1, 2, 3, 4.	Marks entrance to marina.				Odd numbered, white square daymark on black pile; even numbered, white square day- mark on red pile.	Odd numbered, white reflector; even numbered, red reflector. Private aid	
	— Turning Basin Buoy 54	In 20 feet				Red nun	Ra ref. Red reflector.	
	— Turning Basin Buoy 56	In 16 feet				Red nun	Ra ref. Red reflector.	
	— Turning Basin Buoy 58	In 20 feet				Red sun	Ra ref. Red reflector.	
774	— Lighted Buoy 60 Fl. R., 4 <sup>s</sup>	In 20 feet			4	Red	Nun; winter marker.	
774.10	CARGILL GRAIN ELEVATOR LIGHT 1. F. W.	On unloading structure.				25 On pile	Private aid.	1974
774.20	CARGILL GRAIN ELEVATOR LIGHT 2. F. W.	On unloading structure.				25 On pile	Private aid.	1974
774.30	CARGILL GRAIN ELEVATOR LIGHT 3. F. W.	On unloading structure.				25 On pile	Private aid.	1974
774.40	CARGILL GRAIN ELEVATOR LIGHT 4. F. W.	On unloading structure.				25 On pile	Private aid.	1974
774.50	CARGILL GRAIN ELEVATOR LIGHT 5. F. W.	On unloading structure.				25 On pile	Private aid.	1974
	Toledo Turning Basin Buoy 62	In 27 feet				Red sun	Red reflector.	
	Toledo Turning Basin Buoy 64	In 18 feet				Red sun	Red reflector.	
(Chart 14846)								
775	WALBRIDGE PARK RANGE FRONT LIGHT. F. R.	41 36.9 83 34.8				10 Square daymark on white pile ..	Private aid maintained from May 1 to Oct. 1.	1963
776	WALBRIDGE PARK RANGE REAR LIGHT. F. R.	70 feet 000.5' from front light.				20 Square daymark on white pile ..	Private aid maintained from May 1 to Oct. 1.	1963
	Corbutt Island Intake Crib Booms 2, 4, 6.	In 8 feet				Red spar	Private aid maintained from Mar. 1 to Dec. 15.	
	Brookford Road Water Intake Crib Booms 2, 4, 6.	In 6 feet				Red spar	Private aid maintained from Mar. 1 to Dec. 15.	
777	CULLEN PARK RANGE FRONT LIGHT. F. R.	41 42.3 83 28.6			6	13 Diamond shaped daymark on orange and white pile.	Private aid maintained from May 1 to Oct. 1.	1970
778	CULLEN PARK RANGE REAR LIGHT. F. R.	222 feet, 295' from front light.			6	19 Diamond shaped daymark on orange and white pile.	Private aid.	1970
TOLEDO BEACH (Charts 14830, 14846)								
779	— MARINA RANGE FRONT LIGHT. F. R.	On marina pier 41 49.7 83 24.8				37 Pile	Private aid maintained from Apr. 1 to Nov. 15.	

## MALMEE BAY

## LAKE ERIE, OHIO AND MICHIGAN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. Ht. above water	(6) Structure Ht. above ground	(7) Daymark	Remarks	Year
<b>TOLEDO BEACH</b>								
780	—MARINA RANGE REAR LIGHT .. F. R.	On shore 860 feet 290' from front light.	.....	47	Pile .....	.....	Private aid maintained from Apr. 1 to Apr. 15.	
781	—MARINA SOUTH BREAKWATER LIGHT. Qk. Fl. G.	On outer end of break- water.	.....	10	Pile .....	.....	Private aid maintained from Apr. 1 to Nov. 15.	
782	—MARINA NORTH BREAKWATER LIGHT. Qk. Fl. R.	On outer end of break- water.	.....	10	Pile .....	.....	Private aid maintained from Apr. 1 to Nov. 15.	
<b>OTTER CREEK</b>								
783	—RANGE FRONT LIGHT .....	On south side of entrance.	.....	12	White pile .....	.....	Private aid.	1954
784	—RANGE REAR LIGHT .....	41 50.7 83 24.1 75 feet 284' from front light.	.....	22	White pile .....	.....	Private aid.	1954
<b>BOLLES HARBOR</b>								
785.50	—Lighted Buoy 2 .....	In 11 feet .....	.....	5	Red .....	.....	Ra ref.	
	Fl. R., 4 <sup>s</sup>							
	—Buoy 4 .....	In 9 feet .....	.....	.....	Red nun .....	.....	Ra ref. Red reflector.	
	—Buoy 6 .....	In 9 feet .....	.....	.....	Red nun .....	.....	Ra ref. Red reflector.	
	—Buoy 8 .....	In 9 feet .....	.....	.....	Red nun .....	.....	Ra ref. Red reflector.	
	—Buoy 9 .....	In 8 feet .....	.....	.....	Black can .....	.....	Ra ref. Green reflector.	
	—Buoy 10 .....	In 9 feet .....	.....	.....	Red nun .....	.....	Ra ref. Red reflector.	
786	—ENTRANCE LIGHT 12 .....	130*2, 435 feet from weather bureau sig- nal station.	.....	6	25	Red triangular daymark on white pile.	Red reflector. Higher intensity beam lake- ward.	1969
	41 51.1 83 22.6							
	—Buoy 13 .....	In 8 feet .....	.....	.....	Black can .....	.....	Ra ref. Green reflector.	
	—Daybeacon 14 .....	On end of pier .....	.....	.....	26	TR on pile .....		
787	—ENTRANCE LIGHT 15 .....	41 52.3 83 22.8	.....	8	25	SB on pile .....		1969
	Fl. G., 4 <sup>s</sup>							
<b>MONROE HARBOR</b>								
788	—Approach Lighted Buoy 1 .....	In 26 feet, on south side of entrance to harbor.	.....	6	.....	Black .....		
	Fl. W., 4 <sup>s</sup>							
789	—RANGE FRONT LIGHT .....	41 51.9 83 15.0 On projected center line of channel near inner end.	.....	32	KRW on white skeleton tower ..	.....	Lighted throughout 24 hours.	1934
790	—RANGE REAR LIGHT .....	2, 250 feet 291* 45' from front light.	.....	60	TR on white skeleton tower.	.....	Lighted throughout 24 hours.	1934
791	—Lighted Buoy 3 .....	In 21 feet .....	.....	4	.....	Black .....	Ra ref.	
	Fl. G., 4 <sup>s</sup>							
	—Buoy 4 .....	In 26 feet .....	.....	.....	Red nun .....	.....	Red reflector.	
	—Buoy 5 .....	In 20 feet .....	.....	.....	Black can .....	.....	White reflector.	
	—Buoy 6 .....	In 20 feet .....	.....	.....	Red nun .....	.....	Red reflector.	
	—Buoy 7 .....	In 20 feet .....	.....	.....	Black can .....	.....	White reflector.	
	—Buoy 8 .....	In 20 feet .....	.....	.....	Red nun .....	.....	Red reflector.	
	—Buoy 9 .....	In 14 feet .....	.....	.....	Black can .....	.....	White reflector.	
	—Buoy 10 .....	In 14 feet .....	.....	.....	Red nun .....	.....	Red reflector.	
	—Buoy 11 .....	In 20 feet .....	.....	.....	Black can .....	.....	White reflector.	
	—Buoy 13 .....	In 18 feet .....	.....	.....	Black can .....	.....	White reflector.	

## WEST END

## LAKE ERIE, MICHIGAN AND CANADA

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water Ht. above ground	(6) Structure Daymark	(7) Remarks Year
794	SANDY CREEK RANGE FRONT LIGHT. F. R.	41 55.5 83 19.8			TR on white pile	Private aid maintained from May 1 to Oct. 31, 1963
795	SANDY CREEK RANGE REAR LIGHT. F. R.	340 feet 303½" from front light.		28	TR on white pile	Private aid maintained from May 1 to Oct. 31, 1963
796	ENRICO FERMI POWER PLANT INTAKE LIGHTS. 2 F. W.	Mark dikes 41 57.7 83 15.0		26	White pile	Private aids maintained from Mar. 1 to Dec. 1.
797	SWAN CREEK RANGE FRONT LIGHT. F. G.	Marks small boat channel. 41 58.6 83 14.7		22	White pile	Private aid maintained from Apr. 15 to Nov. 1, 1963
798	SWAN CREEK RANGE REAR LIGHT. F. G.			30	White pile	Private aid maintained from Apr. 15 to Nov. 1, 1963
NORTH SIDE (Chart 14822)						
799	Point Abino Light Gp. Fl. W., 12 <sup>s</sup> fl., 2 <sup>ec</sup> . fl., 2 <sup>ec</sup> . fl., 8 <sup>ec</sup> . 3 flashes.	On beach, on south end of point. C. 42 50.1 79 05.7		15 83	White square tower, fog signal house attached.	FOG SIGNAL: 3 blasts ev 60 <sup>s</sup> (2 <sup>bl</sup> -3 <sup>si</sup> -2 <sup>bl</sup> -3 <sup>si</sup> -2 <sup>bl</sup> -48 <sup>si</sup> ). Tower floodlighted, Emergency Light.
Port Colborne (Can. Chart 2042)						
800	—Lighted Bell Buoy Fl. W.	Southwest of breakwater. C. 42 49.4 79 17.0			White	Ra ref.
801	—OUTER LIGHT F. R.	On south end of west breakwater spur. C.		36 25	White square concrete tower	FOG SIGNAL: 1 blast ev 30 <sup>s</sup> (2 <sup>bl</sup> ). Tower floodlighted, Emergency Light.
802	—WEST BREAKWATER Fl. W., 4 <sup>s</sup>	West end of breakwater. C. 42 52.2 79 16.2		18	Circular tower	
803	—Inner Light Fl. W., 10 <sup>s</sup>	On outer end of west breakwater. C. 42 52.1 79 15.2	12	50 43	White square pyramidal tower	RBN: 294 kHz (•••••) III. BELL: Sounds continuously during fog. Emergency Light.
804	—Lighted Buoy 15 Fl. G.	At east side of harbor entrance. C.			Black	Ra ref.
806	—EAST BREAKWATER LIGHT Fl. G., 4 <sup>s</sup>	On outer end of breakwater. C.		35	White circular concrete tower with black top.	
Port Dover (Can. Chart 2175)						
807	—RANGE FRONT LIGHT E. Int. G., 2 <sup>s</sup>	110 feet from outer end of west pier. C. 42 46.9 80 12.1		37	White square tower	MKR RBN: 316 kHz. HORN: 1 blast ev 30 <sup>s</sup> (3 <sup>bl</sup> ).
808	—RANGE REAR LIGHT F. G.	1,282 feet 021'25" from front light. C.		49 42	Orange triangular daymark with black stripe on white skeleton tower.	Visible 3' 30' centered on range line.
809	Long Point Light Fl. W., 8 <sup>s</sup>	On point, 1,200 feet from east end. C. 42 32.9 80 03.0		15 97	White octagonal tower	RBN: 294 kHz (•••••) II. DIAPHONE: 1 blast ev 30 <sup>s</sup> (3 <sup>bl</sup> ). Horn points 180°.

## NORTH SIDE

## LAKE ERIE, CANADA

(1)	(2)	(3)		(4)	(5)	(6)	(7)
No.	Name	Location		Nominal Range	Ht. above water	Ht. above ground	Structure
No.	Characteristic	Lat. N.	Long. W.				Daymark
Port Stanley (Can. Chart 2181)							
810	—BREAKWATER RANGE FRONT LIGHT. Fl. G., 5 <sup>s</sup> (241)	On outer end of breakwater.	C. 42 39.3 81 12.8	.....	29	25	White square structure .....
811	—BREAKWATER RANGE REAR LIGHT. F. G.  (Chart 14820)	On shore, 1,460 feet 341' 40' from front light.	C. .....	.....	50		White triangular daymark on top of oil tank.
812	<i>Cedar Springs Intake Lighted Buoy</i> . Fl. R.  (Chart 14830)	Marks intake crib ...	..... 42 14.7 82 05.8	.....			Red .....
813	<i>Southeast Shoal Light</i> .....	In 25 feet, near southeast end of shoal.	C. 41 49.6 82 27.8		14	70	White square structure with black stripes on pyramidal base.
813.50	<i>Pelee Passage East Lighted Buoy</i> 28. F. R.	220', 3,000 feet from southeast shoal light.	C. .....				Red .....
814	<i>Southeast Shoal Lighted Buoy</i> .....	In 38 feet .....	C. 41 48.7 82 27.8				Black and white vertical stripes.
815	<i>Mo. (A) W.</i> <i>Pelee Point Lighted Bell Buoy</i> 30. Fl. R.	South of point ...	C. 41 52.1 82 30.5				Red .....
816	<i>Grubb Reef Lighted Buoy</i> 32..... Fl. R.	.....	C. 41 51.9 82 33.6				Red .....
817	<i>Pelee Passage Traffic Lighted Bell Buoy</i> , Mo. (A) W.	.....	C. 41 51.8 82 34.5				Black and white vertical stripes.
818	<i>Pelee Passage Middle Ground Lighted Buoy</i> 31. Fl. G.	North of Middle Ground.	C. 41 51.4 82 34.8				Black .....
819	<i>Pelee Passage Light</i> .....	On north end of Middle Ground.	C. 41 51.3 82 34.9		14	75	Red and white circular tower on pier. 66
820	<i>Pelee Passage Turning Lighted Buoy</i> 34. Fl. R.	Northeast of light-house point.	..... 41 52.6 82 36.1				Red .....
821	SCUDDER BREAKWATER EAST END LIGHT. Fl. R., 4 <sup>s</sup>	On eastern end of breakwater.	C. 41 48.9 82 39.6		24		White circular tower with red top.
822	SCUDDER WHARF LIGHT .....	On elevator, north side of Pelee Island.	C. .....		30		Elevator .....
823	SCUDDER WHARF INNER LIGHT. E. Int. R.	On east end of dock, on Pelee Island.	C. .....		28		Tower .....
824	PELEE ISLAND WEST WHARF LIGHT. Fl. R., 4 <sup>s</sup>	On wharf, west side of island.	C. 41 45.8 82 41.5		26		White circular tower with red top.
825	CEDAR CREEK LIGHT .....	.....	C. 42 00.6 82 46.7		17		Mast .....
826	<i>North Harbor Island Reef Lighted Buoy</i> 33. Fl. G.	Marks north edge of reef.	C. 41 51.0 82 51.2				Black .....

MKR RBN: 299 kHz.  
FOG HORN: 1 blast ev  
30<sup>s</sup> (3'bl). Horn points  
154°. Emergency  
Light.

RBN: 306 kHz(••••)III.  
FOG HORN: 3 blasts ev  
60<sup>s</sup>(2'bl-3'bl-2'bl-  
3'bl-2'bl-48'bl). Horn  
points 180°.  
RACON: (••••)(K).  
Emergency Light.

Obscured from 350° to  
075° Emergency Light  
Gp. Fl. W., 15<sup>s</sup>.  
RACON: (••••)(D).  
Ra ref.

## NORTH SIDE

## LAKE ERIE, CANADA

(1)	(2)	(3)		(4)	(5)	(6)		(7)		
No.	Name	Location		Nominal Range	Ht. above water	Ht. above ground	Structure	Daymark	Remarks	Year
No.	Characteristic	Lat. N.	Long. W.							
827	Colchester Reef Light .....	Near southeast edge		.....	64		Red skeleton tower with red oval daymark.			
	Fl. R., 4 <sup>s</sup>	41 56.0	82 53.5							
828	MIDDLE SISTER ISLAND LIGHT ..	North end of island. C.		.....	60		Square skeleton tower .....			
	Fl. G., 4 <sup>s</sup>	41 51.0	83 00.0							
829	International Boundary Lighted Bell Buoy H.	In 27 feet .....			7	....	Orange and white horizontal bands.		Ra ref. Can buoy winter marker.	
	Fl. W., 6 <sup>s</sup>	41 51.8	83 04.2							

DETROIT RIVER  
ENTRANCE

## LAKE ERIE AND DETROIT RIVER, MICHIGAN AND CANADA

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.		(4) Nominal Range	(5) Hr. above water	(6) Ht. above ground Structure	(7) Daymark Remarks Year
<b>EAST OUTER CHANNEL</b> (Chart 14830, 14848)							
850	Detroit River Light Gp. Fl. W., 15 <sup>s</sup> 0.9 <sup>s</sup> fl., 2.8 <sup>s</sup> ec. 0.9 <sup>s</sup> fl., 10.4 <sup>s</sup> ec. 2 flashes.	In 20 feet, at entrance of river. 42 00.1	83 08.5	22	55	White conical tower on hexagonal pier; upper portion of tower is black. 49	Light displayed one hour before sunset until one hour after sunrise. Winter light, Fl. W., 5 <sup>s</sup> higher intensity up and down channel. RBN: 306 kHz (mm) IV. HORN: 1 blast ev 30 <sup>s</sup> (3 <sup>bl</sup> ). Low-water warning light, amber colored 50 feet above water on south side of lantern gallery; will show either fixed or occulting, light 2 <sup>s</sup> eclipse 2 <sup>s</sup> , in direction East Outer Channel. Radiotelephone at this station. 1855-1956
851.10	—Lighted Buoy 1 Fl. W., 6 <sup>s</sup>	In 27 feet		7		Black	Ra ref. LIB; winter marker.
	—Buoy 1A	In 27 feet				Black can	White reflector.
852	—Lighted Buoy 2 Fl. R., 6 <sup>s</sup>	In 26 feet		5		Red	Ra ref. Nun; winter marker.
	—Buoy 3	In 26 feet				Black can	White reflector.
	—Buoy 4	In 26 feet				Red nun.	Red reflector.
	—Buoy 5	In 25 feet				Black can	White reflector.
	—Buoy 6	In 26 feet				Red nun.	Red reflector.
853	—Lighted Buoy 7 Fl. W., 4 <sup>s</sup>	In 26 feet		6		Black	
854	—Lighted Buoy 8 Fl. R., 4 <sup>s</sup>	In 26 feet		4		Red	
	—Buoy 9	In 26 feet				Black can	White reflector.
	—Buoy 10	In 25 feet				Red nun.	Red reflector.
	—Buoy 11	In 24 feet				Black can	White reflector.
	—Buoy 12	In 24 feet				Red nun.	Red reflector.
855	—Lighted Buoy 13 Fl. W., 4 <sup>s</sup>	In 26 feet				Black	Ra ref. IB; winter marker.
856	—Lighted Bell Buoy 14 Fl. R., 2.5 <sup>s</sup>	In 26 feet		5		Red	Ra ref. LIB; winter marker.
	—Buoy 15	In 22 feet				Black spar	White reflector.
	—Buoy 16	In 21 feet				Red nun.	Red reflector.
857	—Lighted Buoy 17 Fl. W., 4 <sup>s</sup>	In 20 feet		6		Black	
858	—Lighted Buoy 18 Fl. R., 4 <sup>s</sup>	In 18 feet		4		Red	
	—Buoy 19	In 24 feet				Black can	White reflector.
	—Buoy 20	In 28 feet				Red nun.	Red reflector.
	—Buoy 21	In 20 feet				Black can	White reflector.
(For Detroit River Light, see No. 850)							
(For West Outer Channel, see No. 929)							
859	—Lighted Buoy 22 Gk. Fl. R.	In 29 feet		4		Red	Ra ref. Nun; winter marker.
<b>AMBERSTURB CHANNEL</b>							
860	—Lighted Buoy 13 Fl. G.	In 25 feet		4		Black	Ra ref. Can; winter marker.

## AMHERSTBURG CHANNEL

## DETROIT RIVER, CANADA

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.		(4) Nominal Range	(5) Ht. above water	(6) Structure Daymark	(7) Remarks Year	
861	— Buoy 15 .....	In feet .....	.....	.....	.....	Can .....	.....	
	— DETROIT RIVER PIER LIGHT 24D. Qk. Fl. R.	42 01.6	83 08.1	C.	32	White cylindrical tower with spiral orange band on concrete band.	.....	
862	— Lighted Buoy 23D .....	In 22 feet .....	C.	.....	.....	Black .....	Ra ref.	
	Fl. G.							
863	— Lighted Buoy 28D .....	In 21 feet .....	C.	.....	.....	Red .....	Ra ref.	
	Fl. R.							
	(Charts 14848, 14853)							
864	BAR POINT PIER LIGHT 29D .....	.....	C.	.....	12	46	White square tower with black vertical stripe at each corner.	HORN: 2 blasts ev 30 <sup>s</sup> (3bl-6 <sup>sl</sup> -3bl-18 <sup>sl</sup> ). Emergency light Gp. Fl. W., 15 <sup>s</sup> . Tower floodlighted. Light obscured from 090° to 191°.
	Fl. G., 10 <sup>s</sup>	42 02.4	83 08.1					
865	— Lighted Buoy 31D .....	In 21 feet .....	C.	.....	.....	Black .....	Ra ref.	
	Fl. G.							
866	— Lighted Buoy 32D .....	In 21 feet .....	C.	.....	.....	Red .....	Ra ref.	
	Qk. Fl. R.							
	HACKETT REACH							
867	— RANGE FRONT LIGHT .....	On east bank of Detroit River at Amherstburg.	C.	.....	.....	45	Orange triangular daymark with black vertical stripe on pile.	
	F. R.	42 05.8	83 06.8					
868	— RANGE REAR LIGHT .....	994 feet 014'55' from front light.	C.	.....	.....	80	Orange triangular daymark with black vertical stripe on white skeleton tower.	
	F. R.							
869	— Lighted Buoy 37D .....	.....	C.	.....	.....	Black .....	Ra ref.	
	Fl. G.	42 03.1	83 07.8					
870	— Lighted Buoy 38D .....	In 21 feet, off Bar Point.	C.	.....	.....	Red .....	Ra ref.	
	Fl. R.							
871	— Lighted Buoy 43D .....	In 21 feet .....	C.	.....	.....	Black .....	Ra ref.	
	Fl. G.							
872	— Lighted Buoy 44D .....	In 21 feet .....	C.	.....	.....	Red .....	Ra ref.	
	Fl. R.							
873	— Lighted Buoy 45D .....	.....	C.	.....	.....	Black .....	Ra ref.	
	Fl. G.	42 03.8	83 07.5					
874	— Lighted Buoy 46D .....	.....	C.	.....	.....	Red .....	Ra ref.	
	Fl. R.	42 03.8	83 07.5					
875	BAR POINT RANGE FRONT LIGHT 49D.	On end of dike .....	C.	.....	.....	27	Orange rectangular daymark with black vertical stripe on white circular tower.	
	F. Y.	42 04.2	83 07.4					
876	BAR POINT RANGE REAR LIGHT.	In 17 feet, 2,500 feet 013'27' from front light.	C.	.....	.....	58	Orange triangular daymark with black vertical stripe on lattice tower.	
	F. Y.							
877	— Lighted Buoy 50D .....	In 21 feet .....	C.	.....	.....	Red .....	Ra ref.	
	Fl. R.							
878	— LIGHT 51D .....	In 17 feet .....	C.	.....	.....	27	White circular tower, black top.	
	Fl. G., 4 <sup>s</sup>	42 04.7	83 07.2					
879	— Lighted Buoy 52D .....	In 21 feet .....	C.	.....	.....	Red .....	Ra ref.	
	Fl. R.							
880	— LIGHT 53D .....	.....	C.	.....	.....	27	White circular tower, black top.	
	Fl. G., 4 <sup>s</sup>	42 05.2	83 07.1					
	— Buoy 55D .....	In 21 feet .....	C.	.....	.....	Black spar .....		
881	— Lighted Buoy 56D .....	In 21 feet .....	C.	.....	.....	Red .....	Ra ref.	
	Qk. Fl. R.							
882	— Lighted Buoy 57D .....	In 21 feet .....	C.	.....	.....	Black .....	Ra ref.	
	Qk. Fl. G.							

## AMHERSTBURG CHANNEL

## DETROIT RIVER, CANADA

(1)	(2)	(3)		(9)	(5)	(6)		(7)
No.	Name	Lat. N.	Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure	Remarks
No.	Characteristic	Lat. N.	Long. W.				Daymark	Remarks
<b>AMHERSTBURG REACH</b>								
883	AMHERSTBURG RANGE FRONT LIGHT 65D. F. Y.	42 06.8	83 07.1	C.	.....	27	Orange rectangular daymark with black vertical stripe on white circular tower.	
884	AMHERSTBURG RANGE REAR LIGHT. F. Y.	1,138 feet, 355'47'		C.	.....	40	Orange rectangular daymark with black vertical stripe on white pyramidal skeleton tower.	
885	—Lighted Buoy 59D ..... Fl. G.	In 21 feet	.....	C.	.....	.....	Black	Ra ref.
886	—Lighted Buoy 60D ..... Fl. R.	In 21 feet	.....	C.	.....	.....	Red	Ra ref.
887	—LIGHT 61D ..... Fl. G., 4 <sup>s</sup>	42 06.0	83 07.0	C.	.....	26	White circular tower, black top.	
888	—Lighted Buoy 63D ..... Qt. Fl. G.	In 21 feet, marks intersection of west edges of Amherstburg and Limekiln Channels.		C.	.....	.....	Black	Ra ref.
<b>LIMEKILN CROSSING CHANNEL</b>								
889	—Lighted Buoy 64D ..... Qt. Fl. R.	In 21 feet	.....	C.	.....	.....	Red	Ra ref.
890	LIMEKILN CROSSING RANGE FRONT LIGHT. F. R.	At northerly end of channel.		C.	.....	24	Orange rectangular daymark with black vertical stripe on white pyramidal skeleton tower.	Visible on rangeline only. Range leads to Fort Malden Range line.
891	LIMEKILN CROSSING RANGE REAR LIGHT. F. R.	1,185 feet 002'55'		C.	.....	40	Orange rectangular daymark with black vertical stripe on mast.	Visible on rangeline only. Range leads to Fort Malden Range line.
892	—Lighted Buoy 67D ..... Fl. G.	In 21 feet	.....	C.	.....	.....	Black	Ra ref.
893	—Lighted Buoy 68D ..... Fl. R.	In 21 feet	.....	C.	.....	.....	Red	Ra ref.
894	—LIGHT 73D ..... Qt. Fl. G.	42 07.3	83 07.0	C.	.....	27	White circular tower, black top.	
895	—Lighted Buoy 74D ..... Qt. Fl. R.	In 21 feet, marks intersection of east edge of Limekiln and Ballards Reef Channels.		C.	.....	.....	Red	Ra ref.
<b>BALLARDS REEF CHANNEL</b>								
896	FORT MALDEN RANGE FRONT LIGHT. F. R.	On east bank of river.		C.	.....	41	Orange rectangular daymark with black vertical stripe on white pyramidal skeleton tower.	Range marks Ballards Reef Channel.
897	FORT MALDEN RANGE REAR LIGHT. F. R.	383 feet 162'30' from front light.		C.	.....	68	Orange rectangular daymark with black vertical stripe on white pyramidal skeleton tower.	
898	GROSSE ILE SOUTH CHANNEL RANGE FRONT LIGHT. F. G.	On north end of Grosse Ile.		C.	.....	26	White square daymark with black triangle on skeleton tower.	Visible on rangeline only. Lighted throughout 24 hours. 1891-1961
899	GROSSE ILE SOUTH CHANNEL RANGE REAR LIGHT. F. G.	1,495 feet 342½' from front light.		C.	.....	51	White square daymark with black triangle on skeleton tower.	Visible on rangeline only. Lighted throughout 24 hours. 1891-1961
900	—LIGHT 75D ..... Fl. G., 4 <sup>s</sup>	42 07.4	83 07.1	C.	.....	27	White circular tower, black top.	
901	—Lighted Buoy 77D ..... Fl. G.	On west side of channel.		C.	.....	.....	Black	Ra ref.
902	—Lighted Buoy 78D ..... Fl. R.	In 21 feet	.....	C.	.....	.....	Red	Ra ref.
903	—Lighted Buoy 80D ..... Fl. R.	In 21 feet	.....	C.	.....	.....	Red	Ra ref.

## BALLARDS REEF CHANNEL

## DETROIT RIVER, CANADA AND MICHIGAN

(1)	(2)	(3)		(4)	(5)	(6)		(7)		
No.	Name	Lat. N.	Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure	Daymark	Remarks	Year
904	LIVINGSTONE CHANNEL UPPER ENTRANCE LIGHT. Alt. Fl. W. and R., 20 <sup>s</sup> W 0.3 <sup>fl</sup> . 9.7 <sup>ec</sup> . R 0.3 <sup>fl</sup> . 9.7 <sup>ec</sup> .	In 18 feet, at junction of livingstone and Ballard Reef Channels. C.	42 08.2 83 07.3	.....	40		White square tower .....		HORN: (2note) blast ev 15 <sup>s</sup> (4 <sup>bl</sup> D. Emergency Light Gp. Fl. W. 15 <sup>s</sup> Tower floodlighted	
905	BALLARDS REEF CHANNEL LIGHT 81D. Fl. W., 10 <sup>s</sup>	50 feet outside channel limits. C.	42 08.5 83 07.5	.....	37		Orange vertical stripes on the corners of a white square structure.		FOG HORN: 1 blast ev 20 <sup>s</sup> (2 <sup>bl</sup> ).	
906	—Lighted Buoy 82D Fl. R.	In 24 feet .....	C.	.....			Red .....		Ra ref.	
907	—Lighted Buoy 83 Fl. G.	In 24 feet .....		.....	4		Black .....		Ra ref. Can; winter marker.	
908	—Lighted Buoy 84D Fl. R.	In 24 feet .....	C.	.....			Red .....		Ra ref.	
909	—Lighted Buoy 85 Fl. G., 4 <sup>s</sup>	In 30 feet .....		.....	4		Black .....		Can; winter marker.	
910	—Lighted Buoy 86 Fl. R., 4 <sup>s</sup>	In 25 feet .....		.....	4		Red .....		Nun; winter marker.	
911	—Lighted Buoy 87 Fl. G., 4 <sup>s</sup>	In 27 feet .....		.....	4		Black .....		Can; winter marker.	
(For Fighting Island Channel, see No. 957).										
LIVINGSTONE CHANNEL										
912	—LIGHT 25 Fl. G., 2.5 <sup>s</sup>	On west side near north entrance.		.....	4	34	SB on black column and small house on pier.			1915-1936
913	—LIGHT 26 Fl. R., 2.5 <sup>s</sup>	On east side near north entrance to cofferdam section, abreast Light 25.		.....	5	34	TR on red column and small house on pier.			1912-1936
914	—LIGHT 23 E. Int. G., 6 <sup>s</sup>	On west side of channel, inside of cofferdam section.		.....	5	34	SB on black column and small house on pier.		Higher intensity beam up and downstream.	1912-1936
915	—LIGHT 24 E. Int. R., 6 <sup>s</sup>	On east side of channel, abreast Light 23.		.....	5	34	TR on red column and small house on pier.		Higher intensity beam up and downstream.	1912-1936
916	—LIGHT 21 Fl. G., 2.5 <sup>s</sup>	On west side of channel near south end of cofferdam section.		.....	4	34	SB on black column and small house on pier.			1922-1936
917	—LIGHT 22 Fl. R., 4 <sup>s</sup>	On east side of channel near south end of cofferdam section, abreast Light 21. C.		.....		34	TR on red column on pier .....			1912-1971
918	—LIGHT 20 E. Int. R., 2 <sup>s</sup>	In 25 feet, on east side of channel. C.		.....		34	TR on red column .....			1915-1971
919	—LIGHT 19 E. Int. G., 6 <sup>s</sup>	On dike, on west side of channel.		.....		34	SB and small house on pier .....		Higher intensity beam up and downstream.	1912-1936
920	—LIGHT 17 Fl. G., 4 <sup>s</sup>	On dike, on west side of channel. C.		.....		34	SB on black column .....		Obscured from 010° to 175°.	1922-1971
921	—LIGHT 18 Fl. R., 4 <sup>s</sup>	On dike, on east side of channel, abreast Light 17. C.		.....		34	TR on red column .....			1915-1971
922	—LIGHT 15 E. Int. G., 2 <sup>s</sup>	On dike, on west side of channel. C.		.....		34	SB on black column .....		Obscured from 010° to 175°.	1912-1971
923	—LIGHT 16 E. Int. R., 2 <sup>s</sup>	On dike, on east side of channel, abreast Light 15. C.		.....		34	TR on red column .....			1912-1971
924	—LIGHT 13 Fl. G., 4 <sup>s</sup>	On west side of channel. C.		.....		34	SB on black column on pier .....		Obscured from 190° to 355°.	1912-1971

## LIVINGSTONE CHANNEL

## DETROIT RIVER, CANADA AND MICHIGAN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water	(6) Structure Ht. above ground Daymark	(7) Remarks Year
925	—LIGHT 14 Fl. R., 4 <sup>s</sup>	In 25 feet, on east side of channel abreast Light 13. C.		34	TR on red column	1912-1971
	— Buoy 8	In 25 feet			Red nun	Red reflector.
	— Buoy 7	In 25 feet			Black can	White reflector.
926	—Lighted Buoy 6 Fl. R.	In 25 feet, on east side of channel. C.			Red	Ra ref.
927	—Lighted Buoy 5 Fl. G.	In 25 feet, on west side of channel. C.			Black	Ra ref.
	— Buoy 4	In 25 feet			Red nun	Red reflector.
	— Buoy 3	In 25 feet			Black can	White reflector.
928	—Lighted Buoy 1 Fl. G.	In 25 feet, on west side of channel. C. 42 02.5 83 03.2			Black	Ra ref.
<b>WEST OUTER CHANNEL</b>						
929	—Lighted Buoy 9 Fl. W., 4 <sup>s</sup>	In 19 feet		6	Black	
	— Buoy 8	In 20 feet			Red nun	Red reflector.
	— Buoy 7	In 20 feet			Black can	White reflector.
930	—Lighted Buoy 6 Fl. R., 4 <sup>s</sup>	In 20 feet		4	Red	Ra ref. Nun; winter marker.
931	—Lighted Buoy 5 Fl. W., 4 <sup>s</sup>	In 20 feet		6	Black	
	— Buoy 4	In 20 feet			Red nun	Red reflector.
	— Buoy 3	In 20 feet			Black can	White reflector.
	— Buoy 2	In 20 feet			Red nun	Red reflector.
932	—Lighted Bell Buoy 1 Fl. W., 6 <sup>s</sup>	In 20 feet, at south end of channel.		7	Black	Ra ref. Can with white reflector, winter marker.
<b>HICKORY ISLAND CHANNEL</b>						
	— Buoy 1	In 10 feet 42 04.4 83 09.7			Black can	Green reflector.
	— Buoy 2	In 10 feet			Red nun	Red reflector.
	— Buoy 3	In 10 feet			Black can	Green reflector
	Ford Yacht Club East Basin Piling 3, 4, 5, 6.	In 6 feet			Orange pile	Private aid maintained from Apr. 15 to Nov. 1.
936	FORD YACHT CLUB EAST BASIN RANGE FRONT LIGHT. F. R.	On shore			White diamond daymark on pipe. 8	Private aid maintained from Apr. 15 to Nov. 1. 1965
937	FORD YACHT CLUB EAST BASIN RANGE REAR LIGHT. F. R.	On shore, 85 feet 015* from front light.			White diamond daymark on pipe. 15	Private aid. Maintained from Apr. 15 to Nov. 1. 1965
	Ford Yacht Club West Basin Piling 3, 4, 5, 6.	In 6 feet			Orange pile	Private aid maintained from Apr. 15 to Nov. 1.
940	FORD YACHT CLUB WEST BASIN RANGE FRONT LIGHT. F. R.	On shore			White diamond daymark on pipe. 8	Private aid maintained from Apr. 15 to Nov. 1. 1965
941	FORD YACHT CLUB WEST BASIN RANGE REAR LIGHT. F. R.	On shore, 240 feet 024* from front light.			White diamond daymark on pipe. 15	Private aid. Maintained from Apr. 15 to Nov. 1. 1965
	— Buoy 4	In 10 feet			Red nun	Red reflector.
	— Buoy 5	In 10 feet			Black can	Green reflector.
	— Buoy 7	In 10 feet			Black can	Green reflector.
942	—Lighted Buoy 8 Fl. R., 4 <sup>s</sup>	In 12 feet, marks downstream end of end of rock shoal.		4	Red	
	— Buoy 10	In 10 feet			Red nun	Red reflector.
943	GROSSE ILE YACHT CLUB HARBOR SOUTH ENTRANCE LIGHT. Occ. G., 7 <sup>s</sup> (5 <sup>ht</sup> )	On corner of Yacht Club dock. 42 05.3 83 09.1		9	Black	Private aid. 1948

## HICKORY ISLAND CHANNEL

## DETROIT RIVER, MICHIGAN

(1)	(2)	(3)	(4)	(5)	(6)	(7)
No.	Name Characteristic	Location Lat. N. Long. W.	Nominal Range	Ht. above water ground	Structure Daymark	Remarks Year
944	GROSSE ILE YACHT CLUB HARBOR NORTH ENTRANCE LIGHT. Occ. R., 7 <sup>s</sup> (5 <sup>s</sup> H)	In 7 feet, on north side of harbor entrance.	.....	.8	Red pipe .....	Private aid maintained from May 1 to Nov. 1. 1963
945	ELBA-MAR BOAT CLUB RANGE FRONT LIGHT. F. G.	Marks entrance to marina.	.....	18	Orange and black diamond daymark.	Private aid. 1964
946	ELBA-MAR BOAT CLUB RANGE REAR LIGHT. F. G.	250 feet 306' from front light.	.....	....	Orange and black diamond daymark.	Private aid. 1964
	Eiba-Mar Boat Club Entrance Buoy 1	In 4 feet .....	.....	....	Black can .....	Private aid.
	Eiba-Mar Boat Club Entrance Buoy 2	In 4 feet .....	.....	....	Red sun .....	Private aid.
	— Buoy 12 .....	In 10 feet .....	.....	....	Red sun .....	Red reflector.
	— Buoy 13 .....	In 10 feet .....	.....	....	Black can .....	Green reflector.
	— Buoy 16 .....	In 10 feet .....	.....	....	Red sun .....	Red reflector.
	Powder House Island Buoy .....	In 10 feet .....	.....	....	Black and red horizontal bands; can.	Green reflector.
	— Shoal Buoy .....	In 15 feet .....	.....	....	Red and black horizontal bands; sun.	Red reflector.
POWDER HOUSE ISLAND CHANNEL						
	— Buoy 1 .....	In 11 feet .....	.....	....	Black can .....	Green reflector.
		42 06.4 83 08.3				
	— Buoy 2 .....	In 15 feet .....	.....	....	Red sun .....	Red reflector.
	— Buoy 4 .....	In 6 feet .....	.....	....	Red sun .....	Red reflector.
	— Buoy 6 .....	In 8 feet .....	.....	....	Red sun .....	Red reflector.
	Sony Island Buoy 8 .....	In 8 feet, on west side of island.	.....	....	Red sun .....	Ra ref. Red reflector.
HORSE ISLAND SOUTH CHANNEL						
947	— RANGE FRONT LIGHT .....	Marks small boat channel.	.....	7	Red pile .....	Private aid. 1964
	F. R.					
948	— RANGE REAR LIGHT .....	100 feet 268' from front light.	.....	14	Red on white diamond daymark.	Private aid. 1964
	F. R.					
949	— LIGHT 1 .....	Mark south side of channel.	.....	7	Pile cluster .....	Private aid. 1964
	F. G.					
949.10	— LIGHT 2 .....	Marks north side of channel.	.....	7	Pile cluster .....	Private aid. 1964
	F. R.					
949.20	— LIGHT 3 .....	Marks south side of channel.	.....	7	Pile cluster .....	Private aid. 1964
	F. G.					
949.30	— LIGHT 4 .....	Marks north side of channel.	.....	7	Pile cluster .....	Private aid. 1964
	F. R.					
949.40	— LIGHT 5 .....	Marks south side of channel.	.....	7	Pile cluster .....	Private aid. 1964
	F. G.					
949.50	— LIGHT 6 .....	Marks north side of channel.	.....	7	Pile cluster .....	Private aid. 1964
	F. R.					
949.60	— LIGHT 7 .....	Marks south side of channel.	.....	7	Pile cluster .....	Private aid. 1974
	F. G.					
949.70	— LIGHT 8 .....	Marks north side of channel.	.....	7	Pile cluster .....	Private aid. 1964
	F. R.					
951	HORSE ISLAND NORTH CHANNEL SOUTH LIGHT. F. G.	Marks north channel ..	.....	51	Pile cluster .....	Private aid. 1964
GIBRALTAR						
952	HORSE ISLAND NORTH CHANNEL NORTH LIGHT. F. R.	Marks north channel ..	.....	7	Pile cluster .....	Private aid. 1964
953	— CHANNEL RANGE FRONT LIGHT. F. R.	Marks north entrance to Gibraltar.	.....	7	Red on white diamond daymark.	Private aid. 1964

## HICKORY ISLAND CHANNEL

## DETROIT RIVER, MICHIGAN

(1)	(2)	(3)	(4)	(5)	(6)	(7)		
No.	Name Characteristic	Location Lat. N. Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure Daymark	Remarks	Year
GIBRALTAR								
954	— CHANNEL RANGE REAR LIGHT. F. R.	10 feet 239° from front light.	.....	14	Pile	.....	Private aid.	1964
955	— ENTRANCE CHANNEL SOUTH LIGHT. F. G.	.....	.....	7	Pile cluster	.....	Private aid.	1964
956	— ENTRANCE CHANNEL NORTH LIGHT. F. R.	.....	.....	7	Pile cluster	.....	Private aid.	1964
FIGHTING ISLAND CHANNEL								
957	— SOUTH LIGHT ..... E. Int. R., 6 <sup>s</sup>	In 6 feet, on east of south end of channel. 42 10.4 83 08.1	.....	6	35	TR on red skeleton tower with small house on pier.	Higher intensity beam up and down channel. 1916-1948	
958	<i>Mamajuda Shoal Junction Lighted Buoy.</i> I. Qk. Fl. W.	In 31 feet, marks 23 foot shoal and entrance to Wyandotte channel. 42 10.9 83 08.2	.....	6	....	Black and red horizontal bands.	Ra ref. Can; winter marker.	
	— Buoy 88 .....	In 22 feet, on edge of shoal north of South Light.	.....	....	....	Red nun	Red reflector.	
959	MAMAJUDA LIGHT ..... Fl. W., 4 <sup>s</sup>	On east side of Mamajuda Island. 42 11.5 83 08.1	.....	7	25	SB on black skeleton tower with small house on concrete pier.	Higher intensity beam up and down channel. 1849-1921	
960	— Lighted Buoy 90 ..... Fl. R., 4 <sup>s</sup>	In 31 feet, on east side of channel, opposite Mamajuda Light.	.....	4	....	Red		
961	— Lighted Buoy 91 ..... Fl. W., 4 <sup>s</sup>	In 33 feet, on west side of channel.	.....	6	....	Black	Can; winter marker.	
962	— Lighted Buoy 92 ..... Fl. R., 4 <sup>s</sup>	In 28 feet, on east side of channel.	.....	4	....	Red	Nun; winter marker.	
	— Buoy 93 .....	In 22 feet, on west edge of channel.	.....	....	....	Black can	White reflector.	
	— Buoy 94 .....	In 33 feet, on east edge of channel.	.....	....	....	Red nun	Red reflector.	
963	GRASSY ISLAND LIGHT ..... Fl. W., 4 <sup>s</sup>	On east side of Grassy Island. 42 13.5 83 08.0	.....	6	26	SB on black skeleton tower with small house on concrete pier. 24	Higher intensity beam up and down stream. 1849-1921	
	— Buoy 96 .....	In 30 feet, on east side of channel.	.....	....	....	Red nun	Ra ref. Red reflector.	
964	— WATER INTAKE SOUTH LIGHT. Fl. R.	Marks water intake on east side of channel.	.....	....	....	.....	HORN. Private aid. 1963	
965	— WATER INTAKE NORTH LIGHT. Fl. R.	Marks water intake on east side of channel.	.....	6	....	.....	Private aid. 1963	
966	— Lighted Buoy 97 ..... Fl. W., 4 <sup>s</sup>	In 34 feet, on west side of channel.	.....	....	....	Black		
	— Buoy 98 .....	In 30 feet, on edge of shoal off north end of island.	.....	....	....	Red nun	Red reflector.	
967	— NORTH LIGHT ..... Qk. Fl. R.	In 13 feet, on east side of channel, at upper entrance. C.	.....	35	TR	on skeleton tower on pier		1917-1970
	— Buoy 102 .....	In 24 feet. .... C	.....	....	....	Red nun	Red reflector. Ra ref.	

(For Above Fighting Island Channel, see No. 992)

## FIGHTING ISLAND CHANNEL

## DETROIT RIVER, MICHIGAN

(1)	(2)	(3)		(4)	(5)	(6)	(7)
No.	Name	Lat. N.	Long. W.	Nominal Range	Ht. above water	Structure	Remarks
No.	Characteristic	Lat. N.	Long. W.		Ht. above ground	Daymark	Remarks
<b>GROSSE ILE BASIN</b>							
	— Buoy 1, 3, 5, 7.....	In 24 feet				Black can.....	White reflector.
<b>WYANDOTTE CHANNEL</b>							
	— South Entrance Buoy 2 .....	In 24 feet, on east side of channel.				Red nun.....	Red reflector.
		42 11.1	83 08.4				
	— Buoy 4.....	In 21 feet				Red nun.....	Red reflector.
	— Buoy 6.....	In 21 feet				Red nun.....	Red reflector.
968	— Lighted Buoy 7 .....	In 20 feet			4	Black .....	Ra ref. Can; winter marker.
	Fl. G., 4 <sup>s</sup>						
	— Buoy 9.....	In 22 feet				Black can.....	Green reflector.
969	Grosse Ile Spit Lighted Buoy .....	In 24 feet, at end of shoal.			6	Black and red horizontal bands.	Can; winter marker.
	I. Qk. Fl. W.						
	— Buoy 12.....	In 18 feet, on east side of channel.				Red nun.....	Red reflector.
	— Buoy 14.....	In 24 feet, on east side of channel.				Red nun.....	Red reflector.
970	WYANDOTTE CHEMICAL CORPORATION LIGHT.	In 22 feet			10	Dolphin .....	Private aid. Maintained from Apr. 1 to Dec. 1.
	Qk. Fl. G.						
971	— Lighted Buoy 16 .....	In 27 feet			4	Red .....	Nun; winter marker.
	Fl. R., 4 <sup>s</sup>						
972	— Lighted Buoy 18 .....	In 27 feet			4	Red .....	Ra ref. Nun; winter marker.
	Fl. R., 4 <sup>s</sup>						
973	— Lighted Buoy 20 .....	In 27 feet			4	Red .....	Nun; winter marker.
	Fl. R., 4 <sup>s</sup>						
974	Mud Island Junction Lighted Buoy .....	In 26 feet, junction of Wyandotte and Ecorse Channel.			6	Black and red horizontal bands.	Can; winter marker.
	I. Qk. Fl. W.						
	(For Ecorse Channel, see No. 990).						
	— Buoy 21.....	In 27 feet, marks channel limit.				Black can.....	Green reflector.
975	— Lighted Buoy 22 .....	In 27 feet			4	Red .....	Nun; winter marker.
	Fl. R., 4 <sup>s</sup>						
	— Buoy 23.....	In 27 feet				Black can.....	Green reflector.
	— Buoy 24.....	In 27 feet				Red nun.....	Red reflector.
	— Buoy 25.....	In 27 feet				Black can.....	Green reflector.
976	— North Entrance Lighted Buoy ..	In 27 feet			6	Red and black horizontal bands.	Nun; winter marker.
	I. Qk. Fl. W.	42 14.4	83 08.0				
<b>TRENTON CHANNEL</b>							
977	— Lighted Buoy 1 .....	In 21 feet, marks southern limit of channel in turning basin.			4	Black .....	Can; Winter marker.
	Qk. Fl. G.	42 07.4	83 10.6				
	— Buoy 2.....	In 21 feet				Red nun.....	Red reflector.
	— Buoy 3.....	In 21 feet				Black can.....	Green reflector.
	— Buoy 4.....	In 21 feet				Red nun.....	Red reflector.
978	— Lighted Buoy 5 .....	In 21 feet, off Elizabeth Park.			6	Black .....	Can; winter marker.
	Fl. W., 4 <sup>s</sup>						
	— Buoy 6.....	In 21 feet				Red nun.....	Red reflector.
	— Buoy 7.....	In 21 feet				Black can.....	Green reflector.
	White Star Basin Buoy 1, 2, 3, 4...	In 19 feet, marks channel to White Star Refining Co.'s Dock.				Odd numbered, black spar; even numbered, red spar.	Private aid.
979	— Lighted Buoy 9 .....	In 21 feet, off White Star Refining Co.			6	Black .....	Can; winter marker.
	Fl. W., 4 <sup>s</sup>						

## TRENTON CHANNEL

## DETROIT RIVER, MICHIGAN AND CANADA

(1)	(2)	(3)	(4)	(5)	(6)	(7)		
No.	Name	Location	Nominal Range	Ht. above water	Structure	Daymark	Remarks	Year
	Characteristic	Lat. N. Long. W.		Ht. above ground				
980	— Lighted Buoy 10 Fl. R., 4 <sup>s</sup>	In 21 feet, on east side of channel.		4	Red		Nun; winter marker.	
	— Buoy 11	In 21 feet, on west side of channel.			Black can.		Green reflector.	
	— Buoy 12	In 21 feet, on east side of channel.			Red nun		Red reflector.	
	— Buoy 12	In 21 feet, on east side of channel.			Red nun		Red reflector.	
981	— Lighted Buoy 13 Fl. W., 4 <sup>s</sup>	In 21 feet, on west side of channel.		6	Black		Can; winter marker.	
982	— Lighted Buoy 14 Fl. R., 4 <sup>s</sup>	In 21 feet, on east side of channel.		4	Red		Nun; winter marker.	
	— Buoy 15	In 21 feet, on west side of channel.			Black can.		White reflector.	
	— Buoy 16	In 21 feet, on east side of channel.			Red nun		Red reflector.	
	— Buoy 16A	In 28 feet			Red nun		Red reflector.	
	— Buoy 17	In 27 feet, on west side of channel.			Black can.		White reflector.	
983	— Lighted Buoy 18 Fl. R., 4 <sup>s</sup>	In 27 feet, on east side of channel at turn.		4	Red		Nun; winter marker.	
984	— Lighted Buoy 19 Fl. G., 4 <sup>s</sup>	In 27 feet, on west side of channel.		4	Black		Can; winter marker.	
	— Buoy 20	In 27 feet			Red nun		Red reflector.	
	— Buoy 21	In 27 feet, on west side of channel.			Black can.		White reflector.	
	— Buoy 22	In 27 feet, on east side of channel.			Red nun		Red reflector.	
985	— Lighted Buoy 23 Fl. W., 4 <sup>s</sup>	In 27 feet, on west side of channel.		6	Black		Can; winter marker.	
986	— Lighted Buoy 24 Fl. R., 4 <sup>s</sup>	In 27 feet, on east side of channel.		4	Red		Nun; winter marker.	
986.89	WYANDOTTE SALT WELL OBSTRUCTION LIGHT 4. Qk. Fl. W.			6	On triangular piles		Private aid. Maintained from Apr. 15 to Dec. 1, 1972	
986.90	WYANDOTTE CHEMICAL CORPORATION SOUTH LIGHT. Qk. Fl. W.	400 feet 180° from Obstruction Light.		8	Triangular pipes		Private aid maintained from Apr. 15 to Dec. 1, 1971	
986.91	WYANDOTTE CHEMICAL CORPORATION OBSTRUCTION LIGHT. Qk. Fl. W.	42 11.0 83 09.1		8	Triangular pipes		Private aid maintained from Apr. 15 to Dec. 1, 1971	
	— Buoy 25	In 27 feet			Black can.		White reflector.	
	— Buoy 26	In 27 feet			Red nun		Red reflector.	
987	— Lighted Buoy 28 Fl. R., 4 <sup>s</sup>	In 27 feet		4	Red		Nun; winter marker.	
988	— Lighted Buoy 29 Fl. W., 4 <sup>s</sup>	In 27 feet		6	Black		Ra ref. Can; winter marker.	
989	— Lighted Buoy 30 Fl. R., 4 <sup>s</sup>			4	Red		Nun; winter marker.	

## ECORSE CHANNEL

(For Wyandotte Channel, see No. 968).

990	GREAT LAKES STEEL CORPORATION LIGHT. Fl. W., 3 <sup>s</sup>	On west side of channel, opposite lower end of Mud Island.		5	Pile, red rectangular daymark.		Private aid.	1930
	— Buoy 2	In 18 feet			Red nun		Red reflector.	
	— Buoy 4	In 21 feet			Red nun		Red reflector.	
	— Buoy 5	In 21 feet, on north side of channel.			Black can.		White reflector.	
	— Buoy 6	In 21 feet			Red nun		Red reflector.	
991	— Lighted Buoy 7 Fl. W., 4 <sup>s</sup>	In 12 feet		6	Black			

## ABOVE FIGHTING ISLAND

## DETROIT RIVER, MICHIGAN AND CANADA

(1)	(2)	(3)	(4)	(5)	(6)	(7)
No.	Name Characteristic	Location Lat. N. Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure Daymark Remarks Year
992	Fighting Island North Lighted Buoy 104D. Fl. R.	..... C. 42 15.0 83 07.0			Red	Ra ref.
994	Fighting Island Anchorage Lighted Buoy 2. Fl. W.	..... C.			White	
996	Fighting Island Anchorage Lighted Buoy 4. Fl. W.	..... C.			White	
996.10	Great Lakes Steel Shoal Lighted Buoy 1. Qk. Fl. W.	In 30 feet ..... 42 15.7 83 06.9			Black	Private aid. CAUTION: Mariners should not pass between the buoy and the American shore. Spar; winter marker.
996.20	Great Lakes Steel Shoal Lighted Buoy 3. Qk. Fl. W.	In 30 feet ..... .....			Black	Private aid. CAUTION: Mariners should not pass between the buoy and the American shore. Spar; winter marker.
996.92	DETROIT EDISON CELL LIGHT 2. Qk. Fl. W.	..... 42 16.2 83 06.4			20 Steel pile	Private aid. 1971
996.93	DETROIT EDISON CELL LIGHT 1. Qk. Fl. W.	..... 42 16.3 83 06.4			20 Steel pile	Private aid. 1971
997	Rouge River Canal Entrance Lighted Buoy 2. Fl. R., 4'	In 22 feet, at north side of entrance to canal.	4		Red	Nun; winter marker.
998	DETROIT LIME COMPANY LIGHT. Qk. Fl. W.	151', 900 feet from gas holder. 42 17.7 83 09.0			13 Pile cluster	Private aid. 1969
999	Detroit River Lighted Buoy 108D. Fl. R.	Northeast of Ambassa- dor Bridge. C. 42 18.8 83 04.1			Red	Ra ref.
	Third Street Buoy	In 18 feet			Black and red horizontal bands; can.	Green reflector.
	Griawold Street Buoy	In 24 feet, at east end of shoal.			Black and red horizontal bands; can.	Green reflector.
1000	CIVIC CENTER MARINA SOUTH LIGHT. Qk. Fl. R.	In 22 feet, marks south end of floating boom breakwater. 42 19.5 83 02.9			18 Pile on dolphin	Private aid. 1962
1001	CIVIC CENTER MARINA ENTRANCE SOUTH LIGHT. F. G.	In 22 feet, south side of entrance.			18 Pile on dolphin	Private aid. 1962
1002	CIVIC CENTER MARINA ENTRANCE NORTH LIGHT. F. R.	In 22 feet, north side of entrance.			18 Pile on dolphin	Private aid. 1962
1003	CIVIC CENTER MARINA NORTH LIGHT. Qk. Fl. R.	In 22 feet, marks north end of floating boom breakwater.			18 Pile on dolphin	Private aid. 1962
	Federal Marine Terminal Buoy 1	In 26 feet			Black spar	White reflector. Private aid maintained from Apr. 1 to Dec. 1. Ra ref.
1004	Belle Isle West End Lighted Buoy. I. Qk. Fl. G.  HEAD OF DETROIT RIVER	In 28 feet, at end of shoal off southwest end of Belle Isle.		4	Black and red horizontal bands.	
1005	BELLE ISLE LIGHT F. G.	On southeast point of Belle Isle. 42 20.6 82 57.6		10	83 Red pile. 75	1882- 1977
1006	Fleming Channel Lighted Buoy 2. Fl. R.	In 24 feet, marks shoal area on edge of channel. C. 42 20.5 82 57.1			Red	

## HEAD OF DETROIT RIVER

## DETROIT RIVER, MICHIGAN AND CANADA

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.		(4) Nominal Range	(5) Ht. above water Ht. above ground	(6) Structure Daymark	(7) Remarks Year
1007	Livingstone Memorial Lighted Buoy 3. Fl. G., 4 <sup>s</sup>	In 27 feet		4	Black	Ra ref. Can; winter marker.	
1008	Peach Island Lighted Buoy 4 Fl. R.	In 28 feet, on southernly end of shoal.			Red	Ra ref.	
1009	Belle Isle Upper Lighted Buoy I. Qk. Fl. W.	In 21 feet, at junction of channels above Belle Isle.		6	Black and red horizontal bands.		
1010	PEACH ISLAND LIGHT Fl. R., 4 <sup>s</sup>	In 6 feet 42 20.9 82 56.6		6	32 TR on red skeleton tower with small house on concrete base.	Higher intensity beam up and downstream. 1929	
1011	WILLIAM LIVINGSTONE MEMORIAL LIGHT. Occ. W., 5 <sup>s</sup> (4 <sup>s</sup> h)	On easterly end of Belle Isle. 42 20.8 82 57.2		16	58 White pyramidal monumental structure.	Lighted throughout 24 hours.	
1012	Belle Isle North Channel Lighted Buoy 7. Fl. W., 2.5 <sup>s</sup>	In 21 feet, marks edge of channel.		5	Black	Can; winter marker.	
1013	Peach Island Lighted Buoy 8. Fl. R., 4 <sup>s</sup>	In 21 feet		4	Red	Ra ref. Nun; winter marker.	
1014	WINDMILL POINT LIGHT E. Int. W., 6 <sup>s</sup> (3 <sup>h</sup> t)	On southwest corner reversion of hospital reservation. 42 21.5 82 55.8		14	42 White conical tower on concrete base.	1875-1933	
1015	WATERFRONT PARK BREAK-WATER OUTER LIGHT. Fl. W., 1.5 <sup>s</sup>	Marks outside corner, of breakwater at entrance to basin.			11 Pile	Private aid. Length to break water is marked by 13 equally spaced fixed red lights. 1964	
1016	WATERFRONT PARK BREAK-WATER INNER LIGHT. F. W.	Marks inside corner of breakwater at entrance to basin.			11. Pile	Private aid. 1964	
(For Lake St. Clair, see No. 1027).							
BELLE ISLE NORTH CHANNEL							
	Scott Middle Ground Lower Buoy...	In 20 feet			Red and black horizontal bands; sun.	Red reflector.	
	Scott Middle Ground North Channel Buoy 2.	In 23 feet			Red sun	Red reflector.	
	Scott Middle Ground North Channel Buoy 4.	In 18 feet			Red sun	Red reflector.	
	Scott Middle Ground North Channel Buoy 6.	In 33 feet			Red sun	Red reflector.	
	Scott Middle Ground North Channel Buoy 8.	In 25 feet			Red sun	Red reflector.	
1018	DETROIT BOAT CLUB LIGHT F. R.	On east end of dock. 42 20.5 82 59.1			15 Pile	Private aid.	
	Scott Middle Ground South Channel Buoy 1.	In 12 feet, north of Detroit Boat Club Dock.			Black can	Green reflector.	
	Scott Middle Ground South Channel Buoy 3.	In 20 feet			Black can	Green reflector.	
	Scott Middle Ground South Channel Buoy 5.	In 20 feet			Black can	Green reflector.	
	Scott Middle Ground Upper Buoy....	In 12 feet			Red and black horizontal bands; sun.	Red reflector.	
1019	MEMORIAL PARK MARINA WEST ENTRANCE LIGHTS. 2 F. G.	42 21.1 82 59.1			18 Piles	Private aid. 1969	
1020	MEMORIAL PARK MARINA EAST ENTRANCE LIGHTS. 2 F. R.				18 Piles	Private aid. 1969	

## HEAD OF DETROIT RIVER

## DETROIT RIVER AND LAKE ST. CLAIR, MICHIGAN

(1)	(2)	(3)		(4)	(5)	(6)	(7)
No.	Name	Location		Nominal Range	Ht. above water	Structure	Remarks
No.	Characteristic	Lat. N.	Long. W.		Ht. above ground	Daymark	Remarks
<b>BELLE ISLE NORTH CHANNEL</b>							
1021	MEMORIAL PARK MARINA LIGHTS. 6 F. R.			Marks cable string between pilings.	18	Piles	Private aid. 1969
1022	Intake Pipe Buoy 1 WATERWORKS INTAKE CRIB LIGHT. Fl. W., 5 <sup>s</sup>			In 17 feet		Black can	White reflector.
				In 20 feet, at head of Belle Isle.	40	Gray stone tower on pier	Private aid. 1913
1023	Detroit Edison Lighted Buoy 1A... Fl. G., 4 <sup>s</sup>	42 21.1	82 58.0	In 23 feet, northwest of Lagoon Light.	4	Black	Can; winter marker.
1024	WATERWORKS INTAKE LAGOON LIGHT. Fl. R., 6 <sup>s</sup>			At head of Belle Isle.	22	Red mast on small house on concrete pier.	Private aid. 1936
1025	Detroit Edison Buoy 3 — Lighted Buoy 2 Fl. R., 2.5 <sup>s</sup>			In 19 feet	4	Black can Red	Green reflector. Nun; winter marker.
1026	— Buoy 4 — Lighted Buoy 5 Fl. G., 2.5 <sup>s</sup>			In 21 feet In 21 feet, northeast of Belle Isle.	4	Red nun Black	Red reflector. Can; winter marker.
	— Buoy 6			In 21 feet		Red nun	Red reflector.
<b>LAKE ST. CLAIR</b> (Charts 14850, 14853)							
1027	PEACH ISLAND RANGE FRONT LIGHT. F. W. F. W.			In 20 feet, southwest end of lake 42 21.6 82 54.4	32 34	White pyramidal tower, with red vertical stripe circular pier.	Visible on rangeline only. Passing light visible around horizon. 1908-1965
1028	PEACH ISLAND RANGE REAR LIGHT. F. W.			3,558 feet 227°43' from front light.	66	White conical tower, with red vertical stripe square pier.	Visible on rangeline only.
1029	— Lighted Buoy 1 Gk. Fl. W.			In 25 feet, abreast turn in channel.	6	Black	Can; winter marker.
1030	— Lighted Buoy 2 Fl. R., 4 <sup>s</sup>			In 24 feet	4	Red	Nun; winter marker.
	— Buoy 3			In 24 feet		Black can	Green reflector.
	— Buoy 4			In 24 feet		Red nun	Red reflector.
	— Buoy 5			In 24 feet		Black can	Green reflector.
	— Buoy 6			In 24 feet		Red nun	Red reflector.
1031	— Lighted Buoy 7 Fl. G., 4 <sup>s</sup>			In 24 feet	4	Black	Ra ref.
(For Grosse Pointe Dumping Ground, see after No. 1083)							
1032	— Lighted Buoy 8 Fl. R., 4 <sup>s</sup>			In 24 feet	4	Red	Ra ref. LIB; winter marker.
	— Buoy 9			In 24 feet		Black can	Green reflector.
	— Buoy 10			In 24 feet		Red nun	Red reflector.
	— Buoy 11			In 24 feet		Black can	Green reflector.
	— Buoy 12			In 24 feet		Red nun	Red reflector.
1033	— Lighted Buoy 13 Fl. G., 4 <sup>s</sup>			In 24 feet	4	Black	Ra ref. LIB; winter marker.
1034	— Lighted Buoy 14 Fl. R., 4 <sup>s</sup>			In 24 feet	4	Red	Ra ref. IB; winter marker.
	— Buoy 15			In 24 feet		Black can	Green reflector
	— Buoy 16			In 28 feet		Red nun	Red reflector.
1034.10	— Lighted Buoy 17 Fl. G., 4 <sup>s</sup>			In 24 feet	4	Black	White reflector.
1034.20	— Lighted Buoy 18 Fl. R., 4 <sup>s</sup>			In 24 feet	4	Red	Red reflector.
	— Buoy 19			In 24 feet		Black can	Green reflector.
	— Buoy 20			In 24 feet		Red nun	Red reflector.

## LAKE ST. CLAIR

## LAKE ST. CLAIR, MICHIGAN AND CANADA

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water	(6) Structure Ht. above ground Daymark	(7) Remarks Year
1035	—Lighted Buoy 21 Fl. G., 4 <sup>s</sup>	In 24 feet		4	Black	
1036	—Lighted Buoy 22 Fl. R., 4 <sup>s</sup>	In 24 feet, on east side of channel.		4	Red	Ra ref.
1037	—LIGHT Fl. W., 6 <sup>s</sup>	In 24 feet, on westerly side of channel at turn. 42 27.9 82 45.3		12	52 White square tower on cylindrical base.	1941
1038	—Lighted Buoy 24 Fl. R., 4 <sup>s</sup>	In 25 feet, at angle in channel.		4	Red	
1039	ST. CLAIR FLATS CANAL RANGE FRONT LIGHT. F. G.	On shore 42 33.0 82 39.1		44	White daymark on skeleton tower. 36	Visible on rangeline only. Lighted throughout 24 hours. 1935
1040	ST. CLAIR FLATS CANAL RANGE REAR LIGHT. F. G.	4,000 feet 041° from front light.		108	White daymark on pyramidal tower visible above foliage.	Visible on rangeline only. Lighted throughout 24 hours. 1935
1041	—Lighted Buoy 25 Fl. W., 4 <sup>s</sup>	In 24 feet		6	Black	Ra ref.
1042	—Lighted Buoy 26 Fl. R., 4 <sup>s</sup>	In 24 feet		4	Red	Ra ref.
	—Buoy 27	In 24 feet			Black can	Green reflector.
	—Buoy 28	In 24 feet			Red sun	Red reflector.
1043	—Lighted Buoy 29 Fl. W., 4 <sup>s</sup>	In 24 feet		6	Black	Ra ref. LIR winter marker.
1044	—Lighted Buoy 30 Qk. Fl. R.	In 24 feet		4	Red	Ra ref. IB; winter marker.
	—Buoy 31	In 24 feet			Black can	Ra ref. Green reflector.
1046	SQUIRREL ISLAND RANGE FRONT LIGHT. F. Y.	In 2 feet 42 33.2 82 35.0	C.	30	Orange rectangular daymark with black vertical stripe on white skeleton tower.	
1047	SQUIRREL ISLAND RANGE REAR LIGHT. F. Y.	On Squirrel Island, 3,506 feet 064½° from front light. C.		77	Orange rectangular daymark with black vertical stripe on white skeleton tower.	

(For St. Clair Flats Canal, see No. 1141).

ST. CLAIR CUT-OFF  
CHANNEL

(Charts 14852, 14853)

107.50	—Lighted Junction Buoy I. Qk. Fl. W.	In 27 feet, marks junction with St. Clair Flats Canal.		5	Black and red horizontal bands.	Ra ref. Can; winter marker.
1048	—PIER LIGHT 2 Fl. R., 4 <sup>s</sup>	In 9 feet, 190 feet out- side channel limit. C. 42 30.9 82 41.1		24	White cylindrical tower	RACON • • • (S).
1049	—Pier Lighted Buoy 2 Qk. Fl. R.	190 feet toward chan- nel from Light 2. C.			Red	Ra ref.
1050	—PIER LIGHT 3 Fl. G., 4 <sup>s</sup>	In 1 foot, 190 feet out- side channel limit. C.		24	White square tower, black stripe on corners.	
1051	—PIER LIGHT 4 Fl. R., 4 <sup>s</sup>	In 1 foot, 190 feet outside channel limit. C.		26	White square tower with a red stripe on corners.	
1052	—PIER LIGHT 5 Fl. G., 4 <sup>s</sup>	In 1 foot, 190 feet outside channel limit. C.		24	White square tower, black stripe on corners.	
1053	—PIER LIGHT 6 Fl. R., 4 <sup>s</sup>	In 1 foot, 190 feet out- side channel limit. C.		26	White square tower with a red stripe on corners.	

ST. CLAIR CUT-OFF  
CHANNEL

## LAKE ST. CLAIR, CANADA AND MICHIGAN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.		(4) Nominal Range	(5) Ht. above water	(6) Structure Ht. above ground Daymark	(7) Remarks	Year
1054	—PIER LIGHT 7 Fl. G., 4 <sup>s</sup>	In 1 foot, 190 feet out- side channel limit.			24	White square tower, black stripe on corners.		
		42 32.4	82 37.5					
1055	—PIER LIGHT 8 Fl. R., 4 <sup>s</sup>	On shore, 190 feet out- side channel limit.			24	White square tower, red stripe on corners.		
		42 32.2	82 37.4					
1056	—PIER LIGHT 9 Fl. G., 4 <sup>s</sup>	On shore, 190 feet out- side channel limit.			24	White square tower, black stripe on corners.		
		42 32.8	82 36.4					
1057	—PIER LIGHT 10 Fl. R., 4 <sup>s</sup>	On shore, 190 feet out- side channel limit.			24	White square tower, red stripe on corners.		
		42 32.7	82 36.2					
	St. Clair Flats Canal Upper Junction Buoy.	Marks junction of Southeast Bend Cut- off Channel and St. Clair Flats Canal.				Black and red horizontal bands; can.	Ra ref.	
1058	HARSENS ISLAND LIGHT 11 Fl. G., 4 <sup>s</sup>	On channel edge, near north shore.		4	26	SG on white cylindrical tower ..		1889-1935
1059	—Lighted Buoy 12 Fl. R.	On north bank ..				Red ..	Ra ref.	
1060	HARSENS ISLAND LIGHT 13 F. G.	42 32.9	82 35.5	7	26	SB on black latticed mast ..		1889-1927
1061.10	St. Clair Cutoff Lighted Buoy 14 Fl. R.	On north bank ..				Red ..	Ra ref.	
		42 33.1	82 35.2					

(For St. Clair River, see No. 1152)

## LAKE ST. CLAIR

GROSSE POINTE  
(Charts 14850, 14853)

1062	—MUNICIPAL PIER NORTHEAST LIGHT. F. G.	On northeast corner of pier.			20	Pipe standard ..	Private aid maintained from Apr. 1 to Dec. 1.	1957
1063	—MUNICIPAL PIER SOUTHWEST LIGHT. F. G.	On southwest corner of pier.				Pipe standard ..	Private aid maintained from Apr. 1 to Dec. 1.	1957
1064	—MUNICIPAL PIER SOUTH BASIN ENTRANCE LIGHT 1. F. G.	On north side of entrance.			10	Pipe standard ..	Private aid maintained from Apr. 1 to Dec. 1.	1957
1065	—MUNICIPAL PIER SOUTH BASIN ENTRANCE LIGHT 2. F. R.	On south side of en- trance.			10	Pipe standard ..	Private aid maintained from Apr. 1 to Dec. 1.	1957
1066	—MUNICIPAL PIER NORTH BASIN ENTRANCE LIGHT 1. F. G.	On north side of en- trance.			10	Pipe standard ..	Private aid maintained from Apr. 1 to Dec. 1.	1957
1067	—MUNICIPAL PIER NORTH BASIN ENTRANCE LIGHT 2. F. R.	On south side of entrance.			10	Pipe standard ..	Private aid maintained fro Apr. 1 to Dec. 1.	
	—Upper Buoy ..	C.				Red nun ..		
		42 32.9	82 35.5					
1068	GROSSE POINTE CLUB HARBOR ENTRANCE WEST LIGHT. F. G.	On west side of entrance.			10	.....	Private aid.	1955
1069	GROSSE POINTE CLUB HARBOR ENTRANCE EAST LIGHT. F. R.	On east side of entrance.			10	.....	Private aid.	1955

## LAKE ST. CLAIR

## LAKE ST. CLAIR, MICHIGAN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.		(4) Nominal Range	(5) Ht. above water	(6) Structure Daymark	(7) Remarks	Year
1070	GROSSE POINTE CLUB DOCK SOUTH LIGHT. F. G.	Northeast of Wind- mill Point Light. 42 23.0 82 53.8		.....	15	.....	Private aid.	1948
1071	GROSSE POINTE CLUB DOCK NORTH LIGHT. F. G.	.....		.....	15	.....	Private aid.	1948
1072	CRESCENT SAIL YACHT CLUB SOUTH ENTRANCE LIGHT. F. G.	On retaining wall west side of entrance.		.....	8	Green pile	Private aid maintained from Apr. 1 to Oct. 31.	1963 1947
1073	CRESCENT SAIL YACHT CLUB LIGHT. F. G.	At Grosse Pointe Farms.		.....	58	.....	Private aid.	1947
1074	CRESCENT SAIL YACHT CLUB WEST LIGHT. F. G.	On end of breakwater.		.....	10	.....	Private aid maintained from Apr. 1 to Oct. 31.	1963
1075	CRESCENT SAIL YACHT CLUB EAST LIGHT. F. R.	On end of crib		.....	9	.....	Private aid maintained from Apr. 1 to Oct. 31.	1963
1076	Grosse Pointe Farms Intake Crib Lighted Buoy. I. QK. FL. W.	In 15 feet, 50 feet southerly of crib.		.....	.....	Black and red horizontal bands.	Private aid maintained from Apr. 15 to Oct. 31.	1963
1077	GROSSE POINTE FARMS LIGHT 2. F. R.	On end of breakwater. 42 24.3 82 53.0		.....	10	Pipe	Private aid maintained from 1 Apr. to 1 Dec.	1968
1078	GROSSE POINTE FARMS LIGHT 4. E. Int. R., 4 <sup>s</sup>	On end of breakwater.		.....	15	Pipe	Private aid maintained from 1 Apr. to 1 Dec.	1968
1079	GROSSE POINTE YACHT CLUB LIGHT. E. Int. G., 2 <sup>s</sup>	On yacht club wharf..		.....	65	Square skeleton tower building attached.	Private aid. 1935-1939	
1080	GROSSE POINTE YACHT CLUB OUTER BREAKWATER LIGHT B. F. R.	On southeast corner of breakwater.		.....	8	.....	Private aid maintained from Jan. 1 to Dec. 1.	1961
1080.50	GROSSE POINTE YACHT CLUB OUTER BREAKWATER LIGHT C. F. R.	On breakwater		.....	8	On pile	Private aid.	1975
1081	GROSSE POINTE YACHT CLUB OUTER BREAKWATER LIGHT D. F. G.	On breakwater, marks entrance to yacht harbor.		.....	8	.....	Private aid maintained from Jan. 1 to Dec. 1.	1961
1081.50	GROSSE POINTE YACHT CLUB OUTER BREAKWATER LIGHT E. F. R.	On breakwater		.....	8	On pile	Private aid maintained from Apr. 1 to Dec. 1.	1975
1082	GROSSE POINTE YACHT CLUB OUTER BREAKWATER LIGHT F. F. R.	On western end of breakwater.		.....	8	.....	Private aid maintained from Jan. 1 to Dec. 1.	1961
1083	MILK RIVER DRAIN LIGHT 1 Fl. W., 4 <sup>s</sup>	In 3 feet 42 27.6 82 52.3		.....	8	Black	Private aid maintained from Apr. 20 to Nov. 20.	
GROSSE POINTE DUMPING GROUND								
—	Buoy A	In 15 feet		.....	.....	Orange and white horizontal bands; can.	White reflector.	
—	Buoy C	In 15 feet		.....	.....	Orange and white horizontal bands; can.	White reflector.	
—	Buoy E	In 17 feet		.....	.....	Orange and white horizontal bands; can.	White reflector.	
—	Buoy G	In 19 feet		.....	.....	Orange and white horizontal bands; can.	White reflector.	
—	Buoy J	In 19 feet		.....	.....	Orange and white horizontal bands; can.	White reflector.	
—	Buoy K	In 19 feet		.....	.....	Orange and white horizontal bands; can.	White reflector.	
—	Buoy B	In 16 feet		.....	.....	Orange and white horizontal bands; sun.	White reflector.	

## LAKE ST. CLAIR

## LAKE ST. CLAIR, MICHIGAN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water	(6) Structure Ht. above ground Daymark	(7) Remarks Year
GROSSE POINTE DUMPING GROUND						
—	Buoy D .....	In 17 feet .....	.....	.....	Orange and white horizontal bands; sun.	White reflector.
—	Buoy F .....	In 19 feet .....	.....	.....	Orange and white horizontal bands; sun.	White reflector.
—	Buoy H .....	In 18 feet .....	.....	.....	Orange and white horizontal bands; sun.	White reflector.
LAKE ST. CLAIR						
	Gaukler Point Shoal Mid-Channel East Buoy.	In 7 feet .....	.....	.....	Black and white vertical stripes sun.	
	Gaukler Point Shoal Mid-Channel West Buoy.	In 7 feet .....	.....	.....	Black and white vertical stripes; sun.	
1084	Gaukler Point Shoal Outside Lighted Buoy 3. Qk. Fl. W.	In 7 feet .....	42 28.5 82 51.5	6	Black .....	
1085	MARATHON OIL COMPANY LIGHT. Ah. Fl. W. & R., 10 <sup>s</sup> 0.2 <sup>s</sup> W. Fl., 4.8 <sup>s</sup> ec. 0.2 <sup>s</sup> R. Fl., 4.8 <sup>s</sup> ec.	Near end of pier ....	42 28.3 82 52.8	66	White mast .....	Private aid maintained from March 1 to Nov. 30. 1959
1086	ST. CLAIR BEACH BOAT CLUB SOUTH END LIGHT. F. R.	On southeast end of pier.	.....	10	.....	Private aid maintained from Mar. 1 to Nov. 1.
1087	ST. CLAIR BEACH BOAT CLUB NORTH END LIGHT. F. R.	On northwest angle of pier.	.....	10	.....	Private aid maintained from Mar. 1 to Nov. 1.
1087.51	MILLER MEMORIAL LIGHT .....	Atop high rise apart- ment building. 82 52.8 82 27.8	.....	260	.....	Private aid. 1972
1088	MILLER MARINA LIGHT .....	In 9 feet, easterly of marina entrance, St. Clair Shores.	.....	16	Orange skeleton tower .....	Private aid maintained from May 1 to Oct. 15. 1963
1089	MARTIN DRAIN OUTER LIGHTS .. Qk. Fl. W.	On outer end of drain ..	42 28.9 82 52.8	12	Pipe .....	Lights mounted one above the other. Private aid maintained from Mar. 15 to Dec. 15. 1955
1090	Point Huron Lighted Buoy 1 .....	In 12 feet .....	42 33.2 82 44.9	6	Black .....	
BLACK CREEK						
1091	— RANGE FRONT LIGHT .....	On Point Huron .....	.....	15	White diamond daymark .....	Private aid maintained from Apr. 1, to Nov. 1. 1961
1092	— RANGE REAR LIGHT .....	336 feet, 297°15' from front light.	.....	18	White diamond daymark .....	Private aid maintained from Apr. 1 to Nov. 1. 1961
1093	— Lighted Buoy 1 .....	In 4 feet .....	.....	.....	Black .....	Private aid maintained from Apr. 1 to Nov. 1.
1094	— Lighted Buoy 2 .....	In 4 feet .....	.....	.....	Red .....	Private aid maintained from Apr. 1 to Nov. 1.
	— Buoy 3 .....	In 4 feet .....	.....	.....	Black can .....	White reflector. Private aid maintained from Apr. 1 to Nov. 1.
	— Buoy 4 .....	In 4 feet .....	.....	.....	Red sun .....	Red reflector. Private aid maintained from Apr. 1 to Nov. 1.
	— Buoy 5 .....	In 4 feet .....	.....	.....	Black can .....	White reflector. Private aid maintained from Apr. 1 to Nov. 1.
	— Buoy 6 .....	In 4 feet .....	.....	.....	Red sun .....	Red reflector. Private aid maintained from Apr. 1 to Nov. 1.

## LAKE ST. CLAIR

## LAKE ST. CLAIR, MICHIGAN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.		(4) Nominal Range	(5) Ht. above water	(6) Structure Ht. above ground Daymark	(7) Remarks Year
<b>CLINTON RIVER</b>							
1095	— Entrance Lighted Buoy 3 Fl. W., 4 <sup>s</sup>	In 9 feet	42 35.6 82 44.7		6	Black	
1096	— Entrance Lighted Buoy 5 Fl. G., 4 <sup>s</sup>	In 8 feet			4	Black	
	— Entrance Buoy 6, 7, 8, 9, 10, 12.	In 8 feet				Even numbered, red nun; odd numbered, black can.	Even numbered, red reflector; odd numbered, green reflector.
1097	— NORTH BREAKWATER LIGHT. Fl. R., 2.5 <sup>s</sup>	On end of breakwater.			5	25 Red triangular daymark on red column.	1965
1098	— SOUTH BREAKWATER LIGHT. Fl. G., 4 <sup>s</sup>	On end of breakwater.			5	25 Black square daymark on black column.	1965
	— Entrance Buoy 14	In 8 feet				Red nun	Red reflector.
	— Entrance Buoy 15	In 8 feet				Black can	Green reflector.
1099	— INNER LIGHT Occ. R., 4 <sup>s</sup> (3 <sup>1</sup> / <sub>2</sub> ft) BELVIDERE BAY	On point at river entrance.			9	25 TR on white skeleton tower.	1908-1937
1100	— CHANNEL LIGHT 1 E. Int. G., 4 <sup>s</sup>	In 7 feet			7	On pile	Maintained from 15 May to 1 Nov. Private aid. 1976
1101	— CHANNEL LIGHT 2 E. Int. R., 4 <sup>s</sup>	In 7 feet			7	On pile	Maintained from 15 May to 1 Nov. Private aid. 1976
1102	— CHANNEL LIGHT 3 E. Int. G., 4 <sup>s</sup>	In 5 feet			5	On pile	Maintained from 15 May to 1 Nov. Private aid. 1976
1103	— CHANNEL LIGHT 4 E. Int. R., 4 <sup>s</sup>	In 5 feet			5	On pile	Maintained from 15 May to 1 Nov. Private aid. 1976
1104	— CHANNEL LIGHT 5 E. Int. G., 4 <sup>s</sup>	In 5 feet			5	On pile	Maintained from 15 May to 1 Nov. Private aid. 1976
1105	— CHANNEL LIGHT 6 E. Int. G., 4 <sup>s</sup>	In 5 feet			5	On pile	Maintained from 15 May to 1 Nov. Private aid. 1976
1106	— CHANNEL LIGHT 7 E. Int. R., 4 <sup>s</sup>	In 5 feet			5	On pile	Maintained from 15 May to 1 Nov. Private aid. 1976
1107	— CHANNEL LIGHT 8 E. Int. R., 4 <sup>s</sup>	In 5 feet			5	On pile	Maintained from 15 May to 1 Nov. Private aid. 1976
1108	— CHANNEL LIGHT 9 E. Int. G., 4 <sup>s</sup>	In 5 feet			5	On pile	Maintained from 15 May to 1 Nov. Private aid. 1976
1109	— CHANNEL LIGHT 11 E. Int. G., 4 <sup>s</sup>	In 5 feet			5	On pile	Maintained from 15 May to 1 Nov. Private aid. 1976
<b>SELFRIDGE FIELD</b>							
1111	— SOUTHEAST BREAKWATER LIGHT. E. Int. R., 2 <sup>s</sup>	42 36.6 82 48.8			12		Maintained by U. S. Air Force Base, Mt. Clemens, Mich. 1948
1112	— CENTER BREAKWATER LIGHT. F. R.	42 36.7 82 48.8			5		Maintained by U. S. Air Force Base, Mt. Clemens, Mich. 1948
1113	— NORTHWEST BREAKWATER LIGHT. E. Int. R., 2 <sup>s</sup>	42 36.7 82 48.9			12		Maintained by U. S. Air Force Base, Mt. Clemens, Mich. 1948
1115	— RANGE FRONT LIGHT F. G.	On shore 42 36.9 82 49.2			12	Orange triangular daymark, apex up, with black border.	Shown only when Selfridge Field crash boats are out on patrol. Maintained by U. S. Air Force Base, Mt. Clemens, Mich. 1946

## LAKE ST. CLAIR

## LAKE ST. CLAIR, MICHIGAN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.		(4) Nominal Range	(5) Ht. above water	(6) Structure Ht. above ground	(7) Daymark Remarks Year
SELFRIDGE FIELD							
1116	— RANGE REAR LIGHT ..... F. G.	400 feet, 261' from front light.		.....	21	Orange triangular daymark, apex down, with black border.	Shown only when Selfridge Field crash boats are out on patrol. Main- tained by U.S. Air Force Base, Mt. Clemens, Mich.
1116.20	SELRIDGE LAUNCH FACILITY ENTRANCE LIGHT 2 Fl. R., 4 <sup>s</sup>	On shore.....		.....	29	Steel pile.....	Private aid maintained from May 1 to Nov. 1.
1116.50	LEWIS ENTRANCE LIGHT 2 F. R.	.....		.....	10	Steel pile.....	Private aid maintained from May 1 to Nov. 1. 1975
1116.60	LEWIS ENTRANCE LIGHT 4 F. R.	.....		.....	10	Steel pile.....	Private aid maintained from May 1 to Nov. 1. 1975
SALT RIVER							
1117	— ENTRANCE WEST LIGHT .... F. G.	On shore..... 42 39.2 82 47.1		.....	.....	On pile..... 6	Private aid maintained from Jun 15 to Nov 15.
1118	— ENTRANCE EAST LIGHT..... F. R.	On shore..... 42 39.2 82 47.1		.....	.....	Or. pile..... 6	Private aid maintained from Jun 15 to Nov. 15.
1119	— RANGE FRONT LIGHT..... F. G.	On shore..... 42 39.3 82 47.1		.....	.....	White daymark with orange diamond on pile. 16	Private aid maintained from Jun 15 to Nov 15.
1119.10	— RANGE REAR LIGHT..... F. G.	On shore 295 feet, 018' from front light.		.....	.....	White daymark with orange diamond on pile. 26	Private aid maintained from June 15 to Nov 15.
GOULETTE POINTE CANAL							
1120	— ENTRANCE LIGHT 3 ..... F. G.	In 4 feet.....		.....	12	Pile.....	Private aid maintained from May 15 to Nov. 1. 1963
1121	— ENTRANCE LIGHT 5 ..... F. G.	In 4 feet.....		.....	12	Pile.....	Private aid maintained from May 15 to Nov. 1. 1963
1122	— ENTRANCE LIGHT 7 ..... F. G.	In 4 feet.....		.....	12	Pile.....	Private aid maintained from May 15 to Nov. 1. 1963
FAIR HAVEN							
1123	— Entrance Lighted Buoy 1 ..... Fl. W., 4 <sup>s</sup>	In 7 feet..... 42 39.9 82 39.0		.....	6	Black.....	Green reflector. Position of buoy frequently shifted with changing conditions.
	— Buoy 3 .....	In 8 feet, on west side of channel.		.....	.....	Black can.....	
SWAN CREEK							
1124	— ENTRANCE LIGHT 1 ..... F. G.	In 5 feet..... 42 40.4 82 38.9		7	6	Pipe.....	Private aid maintained from Apr. 1 to Nov. 15.
1125	— ENTRANCE LIGHT 2 ..... F. R.	In 5 feet..... 43 40.4 82 38.9		7	6	Pipe.....	Private aid maintained from Apr. 1 to Nov. 15.
1126	— LIGHT 4 .....	In 5 feet.....		7	8	Pipe.....	Private aid maintained from Apr. 1 to Nov. 15.
1127	— LIGHT 6 ..... F. R.	In 5 feet.....		7	10	Pipe.....	Private aid maintained from Apr. 1 to Nov. 15.
1127.50	— LIGHT 7 ..... F. G.	.....		.....	.....	On pile.....	Private aid maintained from Apr. 1 to Nov. 15.

## LAKE ST. CLAIR

## LAKE ST. CLAIR, MICHIGAN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.		(4) Nominal Range	(5) Ht. above water	(6) Ht. above ground Structure	(7) Daymark Remarks Year
SWAN CREEK							
1128	— LIGHT 8 F. R.	In 5 feet		7	12	Pipe	Private aid maintained from Apr. 1 to Nov. 15.
1128.40	— LIGHT 10 F. G.					On pile	Private aid maintained from Apr. 1 to Nov. 15.
PIERS MARINA ENTRANCE							
1128.60	— LIGHT 1 F. G.	42 39.8	82 37.5		12	On piling	Private aid. 1977
1128.61	— LIGHT 2 F. R.				12	On piling	Private aid. 1977
1128.62	— LIGHT 6 E. Int. R.				12	On piling	Private aid. 1977
1128.63	— LIGHT 8 E. Int. R.				12	On piling	Private aid. 1977
1128.64	— LIGHT 10 F. R.				12	On piling	Private aid. 1977
BALTIMORE CHANNEL							
	— Buoy 1, 2, 3, 4, 5.	In 6 to 8 feet. in	Buoy 2 82 41.5			Odd numbered, black can; even numbered, red nun.	Odd numbered, green reflector even numbered, red reflector. Position of buoys frequently shifted with changing conditions
(For St. Clair River, see No. 1158)							
NORTH CHANNEL ENTRANCE							
1129	— Lighted Buoy 1 Fl. G., 4 <sup>s</sup>	42 37.5	82 43.1		4	Black	Can station buoy; winter marker.
	— Buoy 3, 4, 6, 7, 8, 9, 10	In 5 to 20 feet				Even numbered, red nun; odd numbered, black can.	Even numbered, red reflector; odd numbered, white reflector. Position of buoys frequently shifted with changing conditions.
1130	— Lighted Buoy 13 Fl. G., 4 <sup>s</sup>				4	Black	
	— Buoys 14, 15, 17, 18, 19	In 15 to 20 feet				Even numbered, red nun; odd numbered, black can.	Even numbered, red reflector; odd numbered, green reflector. Position of buoys frequently shifted with changing conditions.
1131	— Lighted Buoy 20 Fl. R., 4 <sup>s</sup>				4	Red	
1132	BELL HARBOR WEST ENTRANCE WEST LIGHT. F. G.	On left side of entrance.			15	Pile	Private aid maintained from Apr. 1 to Nov. 1. 1963
1133	BELL HARBOR WEST ENTRANCE EAST LIGHT. F. R.	On right side of entrance.			15	Pile	Private aid maintained from Apr. 1 to Nov. 2. 1963
1134	BELL HARBOR EAST ENTRANCE WEST LIGHT. F. G.	On left side of entrance.			15	Pile	Private aid maintained from Apr. 1 to Nov. 15. 1964
1135	BELL HARBOR EAST ENTRANCE EAST LIGHT. F. R.	On right side of entrance.			15	Pile	Private aid maintained from Apr. 1 to Nov. 15. 1964

## LAKE ST. CLAIR

## LAKE ST. CLAIR, CANADA AND MICHIGAN

(1)	(2)	(3)		(4)	(5)	(6)		(7)
No.	Name Characteristic	Lat. N.	Long. W.	Nominal Range	above water	Ht. above ground	Structure Daymark	Remarks Year
<b>MIDDLE CHANNEL ENTRANCE</b>								
1136	— Lighted Buoy 1 .....				4		Black .....	Can; winter marker
	Fl. G., 4 <sup>s</sup> .....							
	— Buoy 2, 3, 4, 5 .....	In 6 to 12 feet .....					Odd numbered, black can; even numbered, red nun.	Odd numbered, green reflector even numbered, red reflector. Positions of buoys frequently shifted with changing conditions.
1137	— Lighted Buoy 6 .....				4		Red .....	
	Fl. R., 4 <sup>s</sup> .....							
	— Buoy 7, 8, 9, 10, 11 .....	In 6 to 12 feet .....					Odd numbered, black can; even numbered, red nun.	Odd numbered, green reflector; even numbered, red reflector. Positions of buoy frequently shifted with changing conditions.
1138	— Lighted Buoy 12 .....				4		Red .....	
	Fl. R., 4 <sup>s</sup> .....							
	Clinton River Boat Club South Entrance Buoy 4.	In 5 feet .....					Red .....	Private aid maintained from May 1 to Nov. 1.
	Clinton River Boat Club South Buoy 3.	In 5 feet .....					Black .....	Private aid maintained from May 1 to Nov. 1.
	Clinton River Boat Club Entrance Buoy 2.	In 5 feet .....					Red .....	Private aid maintained from May 1 to Nov. 1.
	Clinton River Boat Club Entrance Buoy 1.	In 5 feet .....					Black .....	Private aid maintained from May 1 to Nov. 1.
	Middle Channel Buoy 13 .....	In 12 feet .....					Black can .....	Green reflector.
	Middle Channel Buoy 14 .....	In 12 feet .....					Red nun .....	Red reflector.
1139	Dickinson Island Lighted Buoy ... I. Q. Fl. W.	In 26 feet, at junction of middle and north channels, east of island.			6		Red and black horizontal bands.	
(For St. Clair River, see No. 1158)								
<b>ST. CLAIR FLATS OLD CHANNEL</b>								
	— Buoy 1, 3, 4, 6 .....	In 8 to 12 feet. Buoy 1 in 42 31.7 82 42.9					Odd numbered, black can; even numbered, red nun.	Odd numbered, green reflector; even numbered, red reflector. Positions of buoys frequently shifted with changing conditions. 1859-1915
1140	— LIGHT .....	At head of old channel.			6	28	Yellow tower on crib .....	
	Fl. W., 4 <sup>s</sup> .....	42 32.3 82 41.6						
	— Daybeacon .....	On crib .....					Concrete conical tower .....	
	— Buoy 8, 10 .....	In 11 feet .....					Red nun .....	Red reflector. Positions of buoys frequently shifted with changing conditions.
(Charts 14852, 14853)								
<b>ST. CLAIR FLATS CANAL</b>								
1141	— Buoy 1 .....	In 25 feet .....					Black can .....	Green reflector.
	— LIGHT 2 .....	On south end of pier.			6	25	TR on red pile .....	Higher intensity beam down channel. 1913-1975
	Fl. W., 4 <sup>s</sup> .....	42 31.1 82 41.2						
1142	— Buoy 3 .....	In 25 feet .....					Black can .....	Green reflector.
	— Lighted Buoy 5 .....	In 25 feet .....			4		Black .....	Ra ref.
	Fl. G., 4 <sup>s</sup> .....							
1143	OLD CLUB BREAKWATER LOWER LIGHT.	On south end of breakwater.				10	Pile cluster .....	Private aid. 1955
	F. W.	42 32.2 82 40.0						
1144	OLD CLUB BREAKWATER UPPER LIGHT.	On north end of breakwater.				10	Pile cluster .....	Private aid. 1955
	F. W.							

## LAKE ST. CLAIR

## CANADA AND MICHIGAN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. Ht. above water ground	(6) Structure Daymark	(7) Remarks Year
<b>ST. CLAIR FLATS CANAL</b>						
1145	MAYBURY HIGHWAY LIGHT 10 Fl. R., 4 <sup>s</sup>	On south side of channel. C. 42 33.3 82 38.3	.....	18	White square tower .....	
	Upmal Marine Service Buoy 1, 2, ...	In 2 feet, at entrance to Crooked Creek.	.....	....	Odd numbered, black barrel; even numbered, red barrel.	Private aids maintained from May 15 to Nov. 1. 1889-1935
1147	ST. CLAIR FLATS LIGHT 13 F. G. Schneider Marina Buoy 1, 2, .....	On north side of channel. In 3 feet .....	.....	7 26	SB on white cylindrical tower ..	Private aids maintained from May 1 to Nov. 1.
<b>ST. CLAIR RIVER</b>						
1148	SOUTHEAST BEND LIGHT 14 Fl. R., 4 <sup>s</sup>	Opposite Joe Bedore Wharf. C.	.....	23	White square tower .....	
1149	SOUTHEAST BEND LIGHT 16 Fl. R. 4 <sup>s</sup>	At entrance to Little Bassett Channel. C.	.....	23	White square tower .....	
1150	HARSENS ISLAND LIGHT 17 Fl. G., 4 <sup>s</sup>	On channel edge, near north shore.	.....	4 27	SB on mast .....	1889-1954
<b>LAKE ST. CLAIR (Canadian Side)</b>						
1151	Peach Island Lighted Buoy Fl. G.	South of island .. C. 42 20.5 82 55.3	.....	....	Black .....	
<b>ST. CLAIR RIVER</b>						
<b>SOUTH CHANNEL</b>						
1152	HARSENS ISLAND RANGE FRONT LIGHT. F. G.	In 3 feet near shore, below island. 42 34.3 82 34.6	.....	27	White cylindrical tower .....	1889-1934
1153	HARSENS ISLAND RANGE REAR LIGHT. F. G.	525 feet 023½' from front light.	.....	31	White daymark on skeleton tower. 33	1889-1913
1154	— Lighted Buoy 15 Fl. W., 4 <sup>s</sup>	In 27 feet .....	.....	6	Black .....	Ra ref. White reflector.
1155	— Lighted Buoy 16 Fl. R., 4 <sup>s</sup>	In 27 feet .....	.....	4	Red .....	Ra ref. Nun; winter marker.
1155.50	— Lighted Buoy 17 Fl. G., 4 <sup>s</sup>	In 27 feet .....	.....	....	Black .....	White reflector.
1156	— LIGHT 20 Gk. Fl. R.	On east side of channel. C.	.....	34	White square tower .....	
1157	— Lighted Buoy 22 Fl. R.	In 24 feet .....	.....	....	Red .....	Ra ref.
<b>ST. CLAIR RIVER</b>						
1158	RUSSELL ISLAND LOWER RANGE FRONT LIGHT. F. G.	In 1 foot, near shore. 42 36.3 82 31.7	.....	18	White diamond daymark on latticed mast.	1889-1929
1159	RUSSELL ISLAND LOWER RANGE REAR LIGHT. F. W. and F. G.	In 1 foot, 2,000 feet 042' from front light.	.....	33	White square daymark on skele- ton mast.	Shows green on range from 057' to 357'. 1889-1913
1160	GRANDE POINTE LIGHT 23 F. G.	In 7 feet .....	.....	5 28	SB on pile .....	Higher intensity beam upstream. 1924-1974
1161	— Lighted Buoy 24 Fl. R.	In 30 feet .....	.....	....	Red .....	Ra ref.
1162.50	Squirrel Island Lighted Buoy 26 Fl. R.	On E. side of channel off islands. C. 42 35.5 82 32.7	.....	....	Red .....	Ra ref.
1163	Grande Pointe Lighted Buoy 27 Fl. G., 4 <sup>s</sup>	In 27 feet .....	.....	4	Black .....	Ra ref. Can; winter marker.

## ST. CLAIR RIVER

## ST. CLAIR RIVER, MICHIGAN AND CANADA

(1)	(2)	(3)	(4)	(5)	(6)	(7)
No.	Name Characteristic	Location Lat. N. Long. W.	Nominal Range	Ht. above water	Structure Ht. above ground	Daymark Remarks Year
	Squirrel Island Buoy	In 26 feet	C.		Red spar	Red reflector. Ra ref.
	Russell Island Buoy 29	In 27 feet			Black cas	Green reflector.
1164	Walpole Island Lighted Buoy 30 Fl. R.	42 36.3 82 31.5	C.		Red	Ra ref.
1165	WALPOLE ISLAND STEERING LIGHT. F. R.	On shore 42 36.3 82 31.4	C.		30 White circular tower with red top.	
1166	WALPOLE ISLAND LOWER LIGHT 32. Qk. Fl. R.	On west end of north breakwater of Government Wharf. C.			18 White square tower	
1167	RUSSELL ISLAND LIGHT 33 F. G.	In 2 feet		7	18 SB on small white house on pier.	1889-1920
1168	WALPOLE ISLAND FERRY PIER LIGHT. Fl. R.	On west end of break- water. 42 36.9 82 31.0	C.		14 Mast	
1169	Russell Island Shoal Lighted Buoy. I. Qk. Fl. W.	In 27 feet, on west end of shoal.		6	Black and red horizontal bands.	Can; winter marker.
1170	WALPOLE ISLAND UPPER LIGHT 34. Fl. R., 4 <sup>s</sup>	In 5 feet, on east side of channel. C.			23 White square tower	
1171	Chenal Ecarte Shoal Lighted Buoy 36. Fl. R., 4 <sup>s</sup>	In 24 feet, marks edge of shoal forming on bank at entrance to Chenal Ecarte. C.			Red	Ra ref.
1172	CHENAL ECARTE RANGE FRONT LIGHT. F. R.	On Walpole Island, 750 feet southeast of north end. C.			22 Orange triangular daymark with black vertical stripe on pile.	
1173	CHENAL ECARTE RANGE REAR LIGHT. F. R.	200 feet 138°20' from front light. C.			37 Orange triangular daymark with black vertical stripe on pile.	
1175	WILLOW POINT LIGHT F. G.	On west bank of river. 42 38.6 82 30.7		9	31 SB on skeleton tower	1945
1175.50	—MONITORING STATION LIGHT. Qk. Fl. W.	In 8 feet. 42 39.6 82 30.9			7 NW on pile worded "DANGER".	Private aid. Maintained from Mar. 1 to Dec. 1. Ra ref.
1176	Roberts Landing Lighted Buoy 37. Fl. W., 4 <sup>s</sup>	In 27 feet		6	10 Black	
1177	Fawn Island Lighted Buoy 38 Fl. R., 4 <sup>s</sup>	In 27 feet, marks south end of middle ground.		4	Red	Ra ref. Nun; winter marker.
1178	MARINE CITY SALT DOCK LIGHT. F. G. Fawn Island Lower End Buoy	On west bank, south of Marine City. In 20 feet	C.		9 20 SB on white skeleton tower	1931
1179	Marine City Shoal Lighted Buoy 40. Fl. R., 4 <sup>s</sup>	In 27 feet		4	Red and black horizontal bands; spar.	Red reflector.
1180	Fawn Island Upper End Lighted Buoy 40A. Qk. Fl. R.	In 27 feet, off Marine City.		4	Red	Ra ref. Nun; winter marker.
1181	STOKES POINT WHARF LIGHT F. R.	20 feet shoreward from southeast corner of wharf. 42 44.1 82 28.7	C.		30 White circular tower with red top.	
1182	KESSEL POINT STEERING LIGHT. F. Y.	On Kessel Point. 42 45.1 82 27.9	C.		30 Orange diamond daymark on white square skeleton mast.	
1183	RECORDS POINT DOCK LOWER LIGHT. Fl. G., 4 <sup>s</sup>	On west side of river. 42 45.5 82 28.3			30 Black pipe	Private aid. 1952
1184	Records Point Lighted Buoy 42 Fl. R.	In 24 feet	C.		Red	Ra ref.

## ST. CLAIR RIVER

## ST. CLAIR RIVER, MICHIGAN AND CANADA

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water	(6) Structure Daymark	(7) Remarks	Year
1185	RECORDS POINT DOCK UPPER LIGHT. Occ. G., 5 <sup>+</sup> (3 <sup>1</sup> lt)	014°, 2,225 feet north of Records Point Dock Lower Light.		30	Black pipe	Private aid.	1952
1186	DOWENS CREEK LIGHT F. Y.	42 46.2 82 27.8	C.	28	White circular tower with red top.	Higher intensity beam on bearings 022° and 159°.	1930-1974
1187	HARTS LANDING LIGHT F. G.	On west side of river.		9	26 SB on skeleton tower		
1188	Harts Landing Lighted Buoy 42A Fl. R.	On east side of channel. 42 47.3 82 28.3	C.		Red	Ra ref.	
1189	COURTRIGHT LIGHT F. Y.	On east side of channel. 42 48.4 82 28.7	C.	20	White skeleton tower on dolphin.		
1190	St. Clair Middle Ground Lighted Buoy 44. Qk. Fl. R.	In 27 feet, south end of shoal.		4	Red	Nun; winter marker.	
1191	St. Clair Middle Ground Lighted Buoy 46. Fl. R., 4 <sup>+</sup>	In 27 feet, on south end of middle ground.		4	Red	Ra ref. Nun; winter marker.	
1192	St. Clair Middle Ground Lighted Buoy 48. Qk. Fl. R.	In 27 feet		4	Red	Ra ref. Nun; winter marker.	
1193	Mooretown Lighted Buoy Fl. G.	..... C. 42 49.8 82 28.5			Black	Ra ref.	
1194	MOORETOWN LIGHT Fl. Y.	25 feet shoreward of northwesterly corner of wharf at Moore, Ont. 42 50.4 82 28.1	C.	30	White circular tower with red top.		
1195	St. Clair Middle Ground Lighted Buoy 50. Qk. Fl. R.	In 24 feet, at north end of shoal. ..... C.			Red	Ra ref.	
1196	Stag Island Lower Lighted Buoy 51. Fl. G., 4 <sup>+</sup>	In 27 feet, on west bank, at turn.		4	Black	Ra ref.	
1197	Stag Island Shoal Lower Junction Lighted Buoy. Qk. Fl. R.	In 24 feet ..... C.			Red and black horizontal bands.	Ra ref.	
1198	STAG ISLAND SHOAL LIGHT Fl. W., 4 <sup>+</sup>	On south end of shoal. 41 51.9 82 28.0 ..... C.		22	White circular tower		
CORUNNA CHANNEL							
1199	CORUNNA SOUTH LIGHT Fl. R., 4 <sup>+</sup>	On east side of channel. ..... C. 42 52.5 82 27.6		20	Pile		
1200	CORUNNA RANGE FRONT LIGHT. F. R.	On shore, east of Stag Island. ..... C. 42 53.2 82 27.4		50	White square tower		
1201	CORUNNA RANGE REAR LIGHT F. R.	568 feet 167°15' from front light. ..... C.		69	White square daymark with black and white horizontal bands.		
1202	DuPont Lighted Buoy Fl. R.	Marks end of water intake pipe. 42 54.0 82 27.5 ..... C.			42 Red		
ST. CLAIR RIVER							
1203	STAG ISLAND MIDDLE LIGHT Occ. G., 4 <sup>+</sup>	On west bank		9	16 SB on white pile on concrete block.	Higher intensity beam upstream. 1906-1910	
1204	Stag Island Shoal Lighted Buoy 54. Fl. R., 4 <sup>+</sup>	In 27 feet		4	Red	Ra ref. Nun; winter marker.	
1205	Stag Island Lighted Buoy 56 Fl. R., 4 <sup>+</sup>	In 27 feet		4	Red	Nun; winter marker.	

## ST. CLAIR RIVER

## ST. CLAIR RIVER, MICHIGAN AND CANADA

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.		(4) Nominal Range	(5) Ht. above water	(6) Structure Ht. above ground Daymark	(7) Remarks	Year
1206	Stag Island Upper Junction Lighted Buoy. Qk. Fl. R.	In 24 feet, at north end of shoal junction of upbound and down-bound channels. C.				Red and black horizontal bands.	Ra ref.	
1207	STAG ISLAND UPPER LIGHT Fl. G., 2.5'	On northeast corner of Marysville seawall.		7	26	SB on white diamond daymark on black pile.		1906-1953
1208	—Lighted Buoy 58 Fl. R.	Marks east side of channel. C. 42 55.2 82 27.3				Red	Ra ref.	
1209	Stag Island North End Lighted Buoy. Fl. G.	On west side of channel. C. 42 53.8 82 27.6				Black	Ra ref.	
1209.80	PORT HURON CAR FERRY LIGHT Fl. W., 3'	42 57.9 82 25.4			14	On dolphin	Private aid.	
1210	BLACK RIVER ENTRANCE LIGHT. Fl. W., 4'	On north bank of river entrance. 42 58.4 82 25.2		11	25	TR on white column		1960
1211	Port Huron Traffic Lighted Buoy Mo. (A) W.	In 27 feet, between up-and-down-bound channels.		6		Black and white vertical stripes.	Ra ref.	
1212	BAY POINT LIGHT Gp. Fl. R., 6' 0.5'fl. 0.5'ec. 0.5'fl., 4.5'ec. 2 flashes.	On south end of point, Sarnia, C. 42 59.2 82 25.1			26	Square skeleton tower. 22	Higher intensity on bearing 343°.	
1213	Bay Point Lighted Buoy Fl. R.	318', 1300 feet from Bay Point Light.				Red	Ra ref.	
1213.50	Point Edward Lighted Buoy 62 Fl. R.	43 00.0 82 25.4				Red	Ra ref.	
(Charts 14865, 14852, 14853)								
1214	FORT GRATIOT RANGE FRONT LIGHT. F. G. F. G.	On west side of river, Port Huron.			42 44	KRW on black skeleton tower	Range lighted throughout 24 hours. Passing light of higher intensity on bearing 326° diminishing around remainder of horizon. Port Huron-Sarnia Bridge center span lights (Occ. G) are on Fort Gratiot range line.	1891-1916 1891-1899
1215	FORT GRATIOT RANGE REAR LIGHT. F. G.	635 feet 207½' from front light.			64 50	KRW on skeleton tower		1891-1916 1891-1899
1216	BLUE WATER BRIDGE STEERING LIGHT. E. Int. R., 2'	On east side of river below bridge. C.			29	White circular tower, red top.		

## SOUTH END

## LAKE HURON, MICHIGAN AND CANADA

(1)	(2)	(3)		(4)	(5)	(6)	(7)	
No.	Name	Location		Nominal Range	Ht. above water	Ht. above ground	Structure	
	Characteristic	Lat. N.	Long. W.				Daymark	
							Remarks	
							Year	
(Charts 14865, 14862)								
1217	Fort Gratiot Light Fl. G., 15'	On mainland north entrance to St. Clair River. 43 00.4 82 25.3			18	82	White conical tower, brick ... 86	RBN: 312 kHz (s m m s) VI. Antenna is located 190.5', 410 feet from light. Station will give available information on fog conditions in upper river by radiophone when requested, (2182 kHz). 1825-1861
1218	POINT EDWARD RANGE FRONT LIGHT. F. R.	On beach, near head of St. Clair River. C. 43 00.2 82 25.0				35	Orange circular daymark with black vertical stripe on cylindrical concrete tower, with red band at top. 28	Visible from all points of approach. RACON: m m s (G)
1219	POINT EDWARD RANGE REAR LIGHT. F. R. LAKE HURON CUT	2,156 feet 180°25' from front light. C.				120	Orange triangular daymark with black vertical stripe, mounted on International Bridge.	Visible on rangeline only.
1220	—Lighted Buoy 1 Qk. Fl. W.	In 27 feet			6		Black	Ra ref. IB; winter marker.
1221	—Lighted Buoy 2 Fl. R.	In 40 feet, on the international boundary line. C.					Red	Ra ref.
1222	—Lighted Buoy 3 Fl. W., 4'	In 24 feet			6		Black	Ra ref.
1223	—Lighted Buoy 4 Fl. R., 4'	In 24 feet			4		Red	Ra ref.
1224	—Lighted Buoy 5 Fl. W., 4'	In 25 feet			6		Black	Ra ref.
1225	—Lighted Buoy 6 Fl. R., 4'	In 25 feet			4		Red	Ra ref.
1226	—Lighted Buoy 7 Qk. Fl. W.	In 29 feet			6		Black	Ra ref. Can; winter marker.
1227	—Lighted Buoy 8 Qk. Fl. R.	In 26 feet			4		Red	LIB; winter marker.
1228	—Lighted Buoy 9 Fl. W., 4'	In 29 feet			6		Black	Ra ref.
1229	—Lighted Buoy 10 Fl. R., 4'	In 29 feet			4		Red	Ra ref.
1230	—Lighted Horn Buoy 11 Fl. W., 4'	In 31 feet			9		Black	HORN: 1 blast ev 30' (3'bl). Ra ref. LIB; winter marker.
1231	—Lighted Buoy 12 Fl. R., 4'	In 31 feet			6		Red	Ra ref. IB; winter marker. RACON m (T).
WEST SIDE								
LEXINGTON HARBOR (Chart 14862)								
1232	—EAST BREAKWATER LIGHT 2 .. Gp. Fl. W., 5' .4'fl., .6'ec. .4'fl., 3.6'ec.	On east breakwater .. 43 16.0 82 31.4			8	25	TR	1976
1232.10	—WEST BREAKWATER LIGHT 3 .. Fl. G., 4'	On west breakwater ..			8	25	SG	1976
	—Buoy 5 .....	In 10 feet					Black can	Ra ref. Green reflector.
	—Buoy 6 .....	In 10 feet					Red nun	Ra ref. Red reflector.
1233	Port Sanilac Light Gp. Fl. W., 10' 1'fl., 1'ec. 1'fl., 1'ec. 1'fl., 5'ec. 3 flashes.	In village 43 25.8 82 32.4			16	69	White octagonal tower 59	1886

## WEST SIDE

## LAKE HURON, MICHIGAN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water	(6) Ht. above ground Structure	(7) Daymark Remarks Year
1234	PORT SANILAC NORTH BREAKWATER LIGHT 2. Fl. R., 4 <sup>s</sup>	On southeast end of breakwater at Port Sanilac Harbor-of- Refuge.		7	31 TR on pile .....	1951-1975
1234.50	PORT SANILAC SOUTH BREAK - WATER LIGHT 3. Fl. G., 4 <sup>s</sup>	On end of south break - water.		5	29 SB on pile .....	1975
<b>Harbor Beach</b>						
1235	—Light .....	On north side of entrance.		25W 21R	54 White conical tower .....	RBN: 312 kHz (• • •) II. Antenna at light tower. HORN: 1 blast ev 30 <sup>s</sup> (3 <sup>bl</sup> ). Operate 6 A.M. to 11 P.M. when visi- bility less than 2 miles. May 1 to Oct. 1, 1858
	Alt. Fl. W. & R., 10 <sup>s</sup> 1 <sup>W</sup> fl., 4 <sup>s</sup> ec. 1 <sup>R</sup> fl., 4 <sup>s</sup> ec.	43 50.7 82 37.9				Private aid maintained from Apr. 1 to Nov. 1, 1885-1912
	Dickinson Marina Buoys 1, 2, 3, 4, 5, 6.	In 4 feet. Buoy 1 in 43 50.9 82 38.6			Odd numbered, black; even numbered, red.	Private aid maintained from Apr. 1 to Nov. 1, 1885-1912
1236	—SOUTH PIER LIGHT .....	On south side of entrance.		7	27 SB on white skeleton tripod ...	Green reflector.
	—Buoy 3 .....	In 23 feet, west side of basin.			Black can .....	Green reflector.
	—Buoy 1 .....	In 23 feet .....			Black can .....	Green reflector.
	—Buoy 4 .....	In 21 feet .....			Red nun .....	Red reflector.
	Hercules Powder Co. Buoy 1 .....	In 18 feet .....			Black spar .....	Private aid.
	Hercules Powder Co. Buoy 2 .....	In 12 feet .....			Red spar .....	Private aid.
	Hercules Powder Co. Buoy 3 .....	In 13 feet .....			Black spar .....	Private aid.
<b>WEST SIDE</b>						
1236.50	Point Aux Barques Lighted Buoy 1. Fl. G., 4 <sup>s</sup>	In 36 feet .....		4	Black .....	
		44 02.6 82 45.4				
1237	Pointe Aux Barques Light .....	On point .....		30	93 White conical tower, dwelling attached.	1847-1908
	Gp. Fl. W., 20 <sup>s</sup> 0.2 fl., 4, 8 <sup>s</sup> ec. 0.2 fl., 14, 8 <sup>s</sup> ec. 2 flashes.	44 01.4 82 47.6			89	
<b>SAGINAW BAY (Chart 14863)</b>						
1238	PORT AUSTIN REEF LIGHT .....	On south side of entrance.		8	76 Buff square tower, house attached.	1878-1902
	Fl. W., 6 <sup>s</sup>	44 04.9 82 58.9				
<b>PORT AUSTIN</b>						
	—Shoal Buoy 1 .....	In 35 feet, on north edge of shoal.			Black can .....	Green reflector.
	—Buoy 3 .....	In 12 feet .....			Black can .....	Green reflector
1239	—BREAKWATER LIGHT 4 .....	On northeast end of breakwater.		6	20 TR on white pile .....	1959
	Fl. R., 4 <sup>s</sup>	44 03.2 82 59.6				
	—Buoy 5 .....	In 10 feet .....			Black can .....	Green reflector.
	—Buoy 6 .....	In 10 feet .....			Red nun .....	Red reflector.
	—Buoy 7 .....	In 10 feet .....			Black can .....	Green reflector.
	—Channel Buoy 1 .....	In 3 feet .....			Black spar .....	Private aid. Maintained from June 1 to Sept. 1.
	—Channel Buoy 2 .....	In 6 feet .....			Red spar .....	Private aid. Maintained from June 1 to Sept. 1.
	—Channel Buoy 4 .....	In 6 feet .....			Red spar .....	Private aid. Maintained from June 1 to Sept. 1.
	—Channel Buoy 6 .....	In 6 feet .....			Red spar .....	Private aid. Maintained from June 1 to Sept. 1.

## SAGINAW BAY

## LAKE HURON, MICHIGAN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. Ht. above water ground	(6) Structure Daymark	(7) Remarks Year
PORT AUSTIN						
	— Channel Buoy 8 .....	In 5 feet .....			Red spar .....	Private aid. Maintained from June 1 to Sept. 1.
	— Buoy A .....	In 5 feet .....			Orange and white horizontal bands.	Private aid. Maintained from June 1 to Sept. 1.
CASEVILLE HARBOR						
1240	— BREAKWATER LIGHT .....	On outer end of breakwater.		7	25 SB on white pile .....	1964
1241	— RANGE FRONT LIGHT .....	On shore .....			25 Black pile .....	Private aid maintained from Apr. 1 to Nov. 15.
1242	— RANGE REAR LIGHT .....	330 feet, 113.5' from front light.			30 Black pile .....	Private aid maintained from Apr. 1 to Nov. 15.
	— Channel Buoy 1 .....	In 10 feet, marks entrance channel.			Black can .....	Ra ref. Green reflector.
	— Channel Buoy 2 .....	In 10 feet, marks entrance channel.			Red nun .....	Ra ref. Red reflector.
	— Channel Buoy 4 .....	In 8 feet, marks entrance channel.			Red nun .....	Red reflector.
1243	ALABASTER TRAMWAY RANGE FRONT LIGHT. F. R.	On crib near outer end of tramway. 44 11.3 83 31.9			20 .....	Private aid. 1929
1244	ALABASTER TRAMWAY RANGE REAR LIGHT. F. R.	170 feet 270' from front light, on high crib near outer end of tramway.			70 .....	Private aid. 1929
1245	Charity Island Shoal Lighted Bell Buoy 5. Qk. Fl. W.	In 52 feet, off north end of shoal, easterly of Whitestone Point. 44 06.5 83 29.7		5	Black .....	Ra ref. Can; winter marker.
1246	Charity Island Shoal Lighted Buoy 7. Fl. G., 4 <sup>s</sup>	In 22 feet, on westerly edge of shoal.		4	Black .....	Can; winter marker.
1247	GRAVELLY SHOAL LIGHT .....	In 12 feet, on end of shoal. 44 01.2 83 32.3		13	75 White square tower on cylindrical base.	Emergency winter light Fl. W., 6 <sup>s</sup> . MGR RBN: 290 kHz. Antenna at light tower. HORN: 1 blast ev 30 <sup>s</sup> (3 <sup>bl</sup> ). Operates continuously. 1939 Green reflector
	Sand Point Mid-Channel Buoy ....	In 14 feet .....			Black and white vertical stripe, nun.	
	Bay Port Harbor Buoys 1, 2, 3, 4, 5, 6, 7, 8.	43 55.9 83 24.8 In 6 feet, mark dredged small boat channel.			Odd numbered, black cans; even numbered, red nuns.	Odd numbered, white reflector; even numbered, red reflector.
	Sebawaing Channel Buoy 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16.	In 6 feet .....			Odd numbered, black can; even numbered, red nun.	
1247.10	SEBEWAING YACHT CLUB SOUTH LIGHT. F. R.	43 44.3 83 27.8			24 On pile .....	Private aid maintained from Mar. 15 to Oct. 15 1975
1247.20	SEBEWAING YACHT CLUB NORTH LIGHT. F. G.	43 44.4 83 27.8			24 On pile .....	Private aid maintained from Mar. 15 to Oct. 15 1975
SAGINAW BAY CHANNEL						
(Charts 14867, 14863)						
1248	— RANGE FRONT LIGHT .....	In 8 feet .....			25 White rectangular daymark on white pile.	1964
1249	— RANGE REAR LIGHT .....	On shore, 3,800 feet 211' 20' from front light.			65 White rectangular daymark on white skeleton tower.	1964

## SAGINAW BAY CHANNEL

## LAKE HURON, MICHIGAN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water	(6) Structure Ht. above ground	(7) Daymark Remarks Year
1250	—Lighted Bell Buoy 1 Fl. W., 6 <sup>s</sup>	In 27 feet marks entrance. 43 49.6 83 42.1		7	Black	Ra ref. Can; winter marker.
1251	—Lighted Buoy 2 Fl. R., 6 <sup>s</sup>	In 26 feet		6	Red	Ra ref. Nun; winter marker.
	—Buoy 3	In 27 feet			Black	Ra ref. Green reflector.
	—Buoy 4	In 26 feet			Red	Ra ref. Red reflector.
	—Buoy 5	In 27 feet			Black	Ra ref. Green reflector.
	—Buoy 6	In 25 feet			Red	Ra ref. Red reflector.
1252	—Lighted Buoy 7 Fl. G., 2.5 <sup>s</sup>	In 26 feet		5	Black	Ra ref. Can; winter marker.
1253	—Lighted Buoy 8 Fl. R., 2.5 <sup>s</sup>	In 25 feet		5	Red	Ra ref. Nun; winter marker.
	—Buoy 9	In 24 feet			Black	Ra ref. Green reflector.
	—Buoy 10	In 24 feet			Red	Ra ref. Red reflector.
1254	—Lighted Buoy 11 Fl. G., 2.5 <sup>s</sup>	In 25 feet 43 44.7 83 46.2		4	Black	Can; winter marker.
1255	—Lighted Buoy 12 Fl. R., 2.5 <sup>s</sup>	In 25 feet		4	Red	Ra ref. Nun; winter marker.
	—Buoy 13	In 25 feet			Black can	Green reflector.
	—Buoy 14	In 25 feet			Red nun	Red reflector.
1256	—Lighted Buoy 15 Fl. G., 2.5 <sup>s</sup>	In 24 feet		4	Black	Ra ref. Can; winter marker.
1257	—Lighted Buoy 16 Fl. R., 2.5 <sup>s</sup>	In 24 feet		4	Red	Ra ref. Nun; winter marker.
	—Buoy 17	In 24 feet			Black can	Green reflector.
	—Buoy 18	In 24 feet			Red nun	Red reflector.
1258	—Lighted Buoy 19 Fl. G., 2.5 <sup>s</sup>	In 24 feet		4	Black	Ra ref. Can; winter marker.
1259	—Lighted Buoy 20 Fl. R., 2.5 <sup>s</sup>	In 24 feet		4	Red	Ra ref. Nun; winter marker.
	—Buoy 21	In 24 feet			Black can	Green reflector.
	—Buoy 22	In 24 feet			Red nun	Red reflector.
1260	—Lighted Buoy 23 Fl. G., 2.5 <sup>s</sup>	In 24 feet		4	Black	Ra ref. Can; winter marker.
1261	—Lighted Buoy 24 Fl. R., 2.5 <sup>s</sup>	In 24 feet		4	Red	Ra ref. Nun; winter marker.
	—Buoy 25	In 27 feet			Black can	Green reflector.
	—Buoy 26	In 24 feet			Red nun	Red reflector.
1261.20	—OBSTRUCTION LIGHT A Qk. F. W.	43 40.5 83 49.7		6	On dolphin	Private aid.
1261.40	—OBSTRUCTION LIGHT B Qk. Fl. W.			6	On dolphin	Private aid.
1262	—Lighted Buoy 27 Fl. G., 2.5 <sup>s</sup>	In 24 feet		4	Black	Ra ref. Can; winter marker.
1263	—Lighted Buoy 28 Fl. R., 2.5 <sup>s</sup>	In 24 feet		4	Red	Ra ref. Nun; winter marker.
	—Buoy 29	In 24 feet			Black can	Green reflector.
	—Buoy 30	In 24 feet			Red nun	Red reflector.
1264	—Lighted Buoy 32 Fl. R., 2.5 <sup>s</sup>	In 24 feet		4	Red	Ra ref. Nun; winter marker.
1265	—Lighted Buoy 31 Fl. G., 2.5 <sup>s</sup>	In 24 feet, marks southern limits of Bay Channel.		4	Black	Ra ref. Can; winter marker.
1266	—Lighted Buoy 33 Fl. G., 2.5 <sup>s</sup>	In 24 feet, marks southern limits of Bay Channel.		4	Black	Ra ref. Can; winter marker.
1267	—Lighted Buoy 34 Fl. R., 2.5 <sup>s</sup>	In 24 feet		4	Red	Nun; winter marker.

## SAGINAW RIVER

## LAKE HURON, MICHIGAN

(1)	(2)	(3)	(4)	(5)	(6)	(7)
No.	Name Characteristic	Location Lat. N. Long. W.	Nominal Range	Ht. above water	Ht. above ground Structure	Daymark Remarks Year
(Chart 14867)						
1268	— Buoy 2 ESSEXVILLE RANGE FRONT LIGHT. F. G.	In 21 feet. North of Essesville 43 37.4 83 50.3		32	Red nun. White daymark on black skeleton tower.	Red reflector. 1931
1269	ESSEXVILLE RANGE REAR LIGHT. F. G.	1,060 feet 160' from front light.		45	White daymark on black skeleton tower.	1931
1269.50	— Lighted Buoy 3 Fl. G., 4 <sup>s</sup>	In 18 feet		4	Black	Ra ref. Can winter mar- ker.
	— Buoy 4	In 18 feet			Red nun.	Red reflector.
	— Buoy 5	In 18 feet			Black can	Green reflector.
	— Buoy 6	In 18 feet			Red nun.	Red reflector.
1270	— Lighted Buoy 7 Fl. G., 4 <sup>s</sup>	In 18 feet		4	Black	Ra ref.
1270.50	— Lighted Buoy 8 Fl. R., 4 <sup>s</sup>	In 18 feet		4	Red	Ra ref. Nun winter mar- ker.
1271	— Lighted Buoy 10 Fl. R., 4 <sup>s</sup>	In 20 feet, on west side of river.		4	Red	Ra ref.
1271.51	— Lighted Buoy 10A Fl. R., 2.5 <sup>s</sup>	In 25 feet		4	Red	Ra ref. Nun winter mar- ker.
	— Buoy 12	In 20 feet.			Red nun.	Red reflector.
1272	— Lighted Buoy 14 Fl. R., 4 <sup>s</sup>	In 18 feet, on north- erly channel bank.		4	Red	Ra ref.
	— Buoy 15	In 18 feet			Black can	Green reflector.
	— Buoy 16	In 18 feet			Red nun.	Red reflector.
	— Buoy 17	In 21 feet			Black can	Green reflector.
1273	— Lighted Buoy 19 Fl. G., 4 <sup>s</sup>	In 20 feet, southerly side of channel.		4	Black	Ra ref.
	— Buoy 21	In 18 feet			Black can	Green reflector.
	— Buoy 22	In 18 feet			Red nun.	Red reflector.
1274	— Lighted Buoy 23 Fl. W., 4 <sup>s</sup>	In 18 feet		6	Black	Ra ref.
	— Buoy 24	In 18 feet.			Red nun.	Red reflector.
1275	— Lighted Buoy 25 Fl. G., 4 <sup>s</sup>	In 18 feet, on easterly side of channel.		4	Black	Ra ref.
	— Buoy 25A	In 20 feet			Black can	Green reflector.
	— Buoy 26	In 18 feet			Red nun.	Red reflector.
	— Buoy 27	In 20 feet			Black can	Green reflector.
	— Buoy 28	In 20 feet			Red nun.	Red reflector.
	— Buoy 29	In 18 feet			Black can	Green reflector.
	— Buoy 30	In 20 feet.			Red nun.	Red reflector.
	— Buoy 31	In 18 feet			Black can	Green reflector.
1276	— Lighted Buoy 32 Fl. R., 4 <sup>s</sup>	In 18 feet, on westerly side of channel.		4	Red	Ra ref.
1277	— Lighted Buoy 33 Fl. G., 4 <sup>s</sup>	In 18 feet, on easterly channel bank.		4	Black	Ra ref.
	— Buoy 34	In 18 feet			Red nun.	Red reflector.
	— Buoy 35	In 20 feet			Black can	Green reflector.
	— Buoy 37	In 18 feet			Black can	Green reflector.
1278	— Lighted Buoy 38 Fl. R., 4 <sup>s</sup>	In 18 feet, on southerly side of channel.		4	Red	Ra ref.
	— Buoy 39	In 18 feet.			Black can	Green reflector.
1279	— Lighted Buoy 40 Fl. R., 4 <sup>s</sup>	In 18 feet, on westerly channel bank.		4	Red	Ra ref.
	— Buoy 42	In 18 feet			Red nun.	Red reflector.
	— Buoy 43	In 12 feet, opposite creek.			Black can	Green reflector.
1280	— Lighted Buoy 44 Fl. R., 4 <sup>s</sup>	In 18 feet, on westerly side of channel.		4	Red	Ra ref.
	— Buoy 45	In 20 feet			Black can	Green reflector.
	— Buoy 46	In 18 feet			Red nun.	Red reflector.
1281	— Lighted Buoy 47 Fl. G., 4 <sup>s</sup>	In 18 feet		4	Black	Ra ref.

## SAGINAW RIVER

## LAKE HURON, MICHIGAN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water ground	(6) Structure Daymark	(7) Remarks Year
1282	— Buoy 49 .....	In 18 feet .....	.....	.....	Black can .....	Green reflector.
	— Buoy 50 .....	In 18 feet .....	.....	.....	Red nun .....	Red reflector.
	— Buoy 51 .....	In 18 feet .....	.....	.....	Black can .....	Green reflector.
	— Lighted Buoy 52 .....	In 18 feet .....	.....	4	Red .....	Ra ref.
	Fl. R., 4 <sup>s</sup>					
	— Buoy 53 .....	In 18 feet .....	.....	.....	Black can .....	Green reflector.
	— Buoy 54 .....	In 18 feet .....	.....	.....	Red nun .....	Red reflector.
1283	— Buoy 55 .....	In 18 feet .....	.....	.....	Black can .....	Green reflector.
	— Buoy 56 .....	In 18 feet .....	.....	.....	Red nun .....	Red reflector.
	— Buoy 57 .....	In 18 feet, marks turn in channel.	.....	.....	Black can .....	Green reflector.
	— Lighted Buoy 58 .....	In 18 feet, on westerly channel bank.	.....	4	Red .....	
	Fl. R., 4 <sup>s</sup>					
	— Buoy 59 .....	In 18 feet .....	.....	.....	Black can .....	Green reflector.
	— Buoy 60 .....	In 18 feet .....	.....	.....	Red nun .....	Red reflector.
1284	— Buoy 61 .....	In 18 feet .....	.....	.....	Black can .....	Green reflector.
	— Buoy 62 .....	In 18 feet .....	.....	.....	Red nun .....	Red reflector.
	— Lighted Buoy 63 .....	In 18 feet, on easterly channel bank.	.....	4	Black .....	
	Fl. G., 4 <sup>s</sup>					
	— Buoy 64 .....	In 18 feet .....	.....	.....	Red nun .....	Red reflector.
	— Buoy 65 .....	In 18 feet .....	.....	.....	Black can .....	Green reflector.
	— Buoy 66 .....	In 18 feet .....	.....	.....	Red nun .....	Red reflector.
1285	— Buoy 68 .....	In 18 feet .....	.....	.....	Red nun .....	Red reflector.
	— Buoy 70 .....	In 18 feet .....	.....	.....	Red nun .....	Red reflector.
	— Lighted Buoy 72 .....	In 18 feet .....	.....	4	Red .....	Ra ref.
	Fl. R., 4 <sup>s</sup>					
	— Buoy 74 .....	In 18 feet .....	.....	.....	Red nun .....	Red reflector.
	— Buoy 76 .....	In 18 feet .....	.....	.....	Red nun .....	Red reflector.
	— Buoy 78 .....	In 16 feet .....	.....	.....	Red nun .....	Red reflector.
Sixth Street Turning Basin Buoy 80, 83, 84.	In 21 to 26 feet .....	.....	.....	Odd numbered, black can; even numbered, red nun.	Odd numbered, white re- flector; even numbered, red reflector.	
<b>SAGINAW</b> (Chart 14863)						
Kawkawlin Channel Buoy 2, 3, 4, 5, 6, 8.	In 5 to 6 feet, Buoy 2 in.	.....	.....	.....	Even number red nun; odd number black can.	Even number red reflector, odd number white re- flector.
Point Au Gres Special Purpose Buoy.	43 40.4 83 51.6 In 6 feet .....	.....	.....	.....	Orange and white horizontal bands worded SUBMERGED OBSTRUCTION; can.	
<b>AU GRES HARBOR</b>						
1285.50	— Entrance Buoy 1 .....	In 14 feet .....	.....	.....	Black can .....	White reflector.
	— Entrance Buoy 2 .....	In 14 feet .....	.....	.....	Red nun .....	Red reflector.
1285.60	— NORTH PIER LIGHT 4 .....	44 01.0 83 40.0	.....	6	30 TR on pile .....	1972
	Fl. R., 4 <sup>s</sup>					
1285.60	— SOUTH PIER LIGHT 3 .....	.....	.....	7	30 SB on pile .....	1972
	Fl. G., 4 <sup>s</sup>					
<b>WEST SIDE</b> (Chart 14863)						
1286	Tawas Light .....	On Tawas Point .....	.....	18W 14R	70 White conical tower dwelling attached.	Red from 045° to 135°. HORN: 2 blasts ev 60 <sup>s</sup> (3 <sup>b</sup> bl-3 <sup>si</sup> -3 <sup>bl</sup> - 51 <sup>si</sup> ), 3, 150 feet 232 <sup>s</sup> from light. 1853-1876
	Occ. W. R., sectors, 30 <sup>s</sup> (25 <sup>si</sup> )	44 15.2 83 26.9	.....	.....	68	
1287	Tawas Point Lighted Buoy 2 .....	In 33 feet, on end of shoal.	.....	4	Red .....	
	Fl. R., 4 <sup>s</sup>					
	Tawas Harbor Buoy 4 .....	In 21 feet, northwest point of shoal.	.....	.....	Red nun .....	Red reflector.

WEST SIDE		LAKE HURON, MICHIGAN								
(1)	(2)	(3)		(4)	(5)	(6)		(7)		
No.	Name	Lat. N.	Long. W.	Nominal Range	Ht. Above water	Ht. above ground	Structure	Daymark	Remarks	Year
1288	TAWAS BAY YACHT CLUB RANGE FRONT LIGHT. F. R.	On point, in harbor			8		Red square daymark on pile		Private aid maintained from Apr. 1 to Nov. 1. 1961	1288
1289	TAWAS BAY YACHT CLUB RANGE REAR LIGHT. F. R.	150 feet 165' from front light.			12		Red square daymark on pile		Private aid maintained from Apr. 1 to Nov. 1. 1961	
1290	JERRY'S MARINA RANGE FRONT LIGHT. F. G.	On shore 44 15.7 83 26.3			12		Circular daymark on pile		Private aid maintained from Apr. 1 to Nov. 1. 1962	
1291	JERRY'S MARINA RANGE REAR LIGHT. F. G.	On shore, 400 feet 128' from front light.			20		Circular daymark on pile		Private aid maintained from Apr. 1 to Nov. 1. 1962	
	Jerry's Marina Daybeacon 1.	In 4 feet, marks north-east side of entrance.					Circular daymark on pile		Private aid maintained from Apr. 1 to Nov. 1.	
	Jerry's Marina Daybeacon 2.	In 4 feet; marks south-west side of entrance.					Circular daymark on pile		Private aid maintained from Apr. 1 to Nov. 1.	
1291.60	TAWAS RIVER FRONT RANGE LIGHT. F. R.	At river entrance			10		White diamond daymark on pile		Private aid. Maintained from Apr. 1 to Dec. 1.	
1291.70	TAWAS RIVER REAR RANGE LIGHT. F. R.	On shore 130 feet 326' from front light.			18		White diamond daymark on pile		Private aid. Maintained from Apr. 1 to Dec. 1.	
	NATIONAL GYPSUM COMPANY	Buoys maintained from Apr. 15 to Dec. 15.								
1292	— RANGE FRONT LIGHT F. Y.	44 14.3 82 32.4			46				Light operates only for vessel arrivals and departures. Private aid maintained from Apr. 15 to Nov. 15. 1959	
1293	— RANGE REAR LIGHT F. Y.	1.400 feet 293.5' from front light.			78				Light operates only for vessel arrivals and departures. Private aid maintained from Apr. 15 to Nov. 15. 1959	
	— Buoy 1	In 25 feet 44 13.8 83 31.0					Black can		White reflector. Private aid.	
	— Buoy 2	In 25 feet					Red nun		Red reflector. Private aid.	
	— Buoy 3	In 23 feet					Black can		White reflector. Private aid.	
	— Buoy 4	In 23 feet					Red nun		Red reflector. Private aid.	
	— Buoy 5	In 21 feet					Black can		White reflector. Private aid.	
	— Buoy 6	In 21 feet					Red nun		Red reflector. Private aid.	
	— Buoy 7	In 19 feet					Black can		White reflector. Private aid.	
	— Buoy 8	In 19 feet					Red nun		Red reflector. Private aid.	
1294	Au Sable Point Lighted Buoy 1 Fl. W., 6"	In 50 feet, outside shoal, off point.			6		Black		Ra ref.	
1295	AU SABLE SOUTH PIERHEAD LIGHT. Fl. G., 4"	On outer end of south pier, mouth of Au Sable.			7	25	SB on white tower		HORN: 1 blast ev 30 <sup>3</sup> (3 <sup>b</sup> l). Operates continuously. 1957	
1296	AU SABLE NORTH PIERHEAD LIGHT. Fl. W., 4"	On outer end of north pier. 44 24.4 83 19.0			9	25	TR on white tower			1957

## WEST SIDE

## LAKE HURON, MICHIGAN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.		(4) Nominal Range	(5) Ht. above water	(6) Structure		(7) Remarks	Year
						Ht. above ground	Daymark		
NATIONAL GYPSUM COMPANY (Chart 14864)									
1298	HARRISVILLE EAST BREAK- WATER LIGHT. Fl. W., 2.5 <sup>s</sup>	On end of breakwater.		7	20	SB on white column .....			1960
1299	HARRISVILLE WEST BREAK- WATER LIGHT. Fl. R., 4 <sup>s</sup>	On end of breakwater.		7	20	TR on white column .....			1960
1300	LAKESHORE TERMINAL COM- PANY RANGE FRONT LIGHT. F. R.	On shore .....			34	Orange diamond daymark on skeleton tower.		Private aid maintained from Apr. 1 to Nov. 1. 1962	
1301	LAKESHORE TERMINAL COM- PANY REAR LIGHT. F. R.	On shore, 900 feet 270° from front light.			64	Orange circular daymark on skeleton tower.		Private aid maintained from Apr. 1 to Nov. 1. 1962	
1302	Sturgeon Point Light .....	On easternmost point between Saginaw and Thunder Bays.		18	69	White conical tower, dwelling attached.			1870
	Fl. W., 6 <sup>s</sup> (2 <sup>s</sup> fl)	44 42.7	83 16.3			68			
1303	Lakeshore Terminal Lighted Buoy A. Fl. W., 4 <sup>s</sup> (1.5 <sup>s</sup> fl)	In 40 feet .....				Orange and white horizontal bands.		Private aid. Maintained from Apr. 15 to Nov. 1.	
1304	Thunder Bay Traffic Lighted Bell Buoy. Mo. (A) W.	In 70 feet, marking point of departure of navigation courses Thunder Bay.		6		Black and white vertical stripes.		Ra ref.	
	44 58.6	83 15.0							
	North Point Buoy 10 .....	In 23 feet, on end of shoal, southeast of North Point.				Red sun .....		Red reflector.	
Alpena									
1305	— LIGHT .....	On corner of bulkhead north side en- trance of Thunder Bay River.		16	44	Red skeleton tower, upper part inclosed.		MKR RBN: 320 kHz. Antenna at light tower. HORN: 1 blast ev 15 <sup>s</sup> (2 <sup>s</sup> bl) . 1877-1914	
	E. Int. W., 6 <sup>s</sup>	45 03.6	83 25.4						
1306	— YACHT CLUB LIGHT .....	On end of breakwater, entrance to small boat harbor.			25	TR on red skeleton tower .....		Private aid maintained from Mar. 15 to Dec. 15 1957	
	F. Fl. R., 5 <sup>s</sup> (2 <sup>s</sup> fl)								
1307	— Junction Lighted Buoy .....	In 21 feet, on west side of channel, at river channel.		5		Red and black horizontal bands.		Ra ref. Nun; winter marker.	
	I. Qk. Fl. W.								
	— Channel Buoy 1 .....	In 21 feet .....				Black can .....		Green reflector.	
	— Channel Buoy 2 .....	In 21 feet .....				Red sun .....		Red reflector.	
	— Channel Buoy 3 .....	In 21 feet .....				Black can .....		Green reflector.	
	— Channel Buoy 4 .....	In 21 feet .....				Red sun .....		Red reflector.	
	— Channel Buoy 6 .....	In 20 feet .....				Red sun .....		Red reflector.	
THUNDER BAY QUARRIES CHANNEL									
1308	— Junction Lighted Buoy .....	In 21 feet .....		5		Red and black horizontal bands.		Ra ref.	
	I. Qk. Fl. W.								
1309	— RANGE FRONT LIGHT .....	On shore .....			22	Orange and white vertical striped daymark on black skeleton tower.		Private aid.	1931
	F. G.	45 04.1	83 25.0						
1310	— RANGE REAR LIGHT .....	400 feet 358° from front light.			38	Orange and white vertical striped daymark on black skeleton tower.		Private aid.	1931
	F. G.								

## WEST SIDE

## LAKE HURON, MICHIGAN

(1)	(2)	(3)		(4)	(5)	(6)	(7)			
No.	Name	Location		Nominal Range	Ht. above water	Ht. above ground	Structure	Daymark	Remarks	Year
EAST ALPENA CHANNEL										
1311	HURON PORTLAND CEMENT COMPANY CHANNEL RANGE FRONT LIGHT. F. R.	On north side, Thunder Bay. 45 04.1 83 24.5		.....	76		Orange and white vertical striped daymark on black skeleton tower.		Private aid. 1911-1947	
1312	HURON PORTLAND CEMENT COMPANY CHANNEL RANGE REAR LIGHT. F. G.	700 feet 344' from front light.		.....	109		Orange and white vertical striped daymark on black skeleton tower.		Private aid. 1911-1947	
	— Buoy 2 .....	In 18 feet .....		.....			Red sun .....		Ra ref. Red reflector. Private aid.	
	— Buoy 3 .....	In 18 feet .....		.....			Black can .....		Ra ref. White reflector. Private aid.	
	— Buoy 4 .....	In 18 feet .....		.....			Red sun .....		Ra ref. Red reflector. Private aid.	
	— Buoy 5 .....	In 17 feet .....		.....			Black can .....		Ra ref. White reflector. Private aid.	
	— Buoy 6 .....	In 16 feet .....		.....			Red sun .....		Ra ref. Red reflector.	
	— Buoy 7 .....	In 15 feet .....		.....			Black can .....		Ra ref. White reflector. Private aid.	
	— Buoy 7 .....	In 23 feet .....		.....			Black can .....		Private aid.	
	— Buoy 8 .....	In 14 feet .....		.....			Red sun .....		Ra ref. Red reflector. Private aid.	
	— Buoy 9 .....	In 20 feet .....		.....			Black can .....		Ra ref. White reflector. Private aid.	
	— Buoy 10 .....	In 14 feet .....		.....			Red sun .....		Ra ref. Red reflector. Private aid.	
	— Buoy 11 .....	In 14 feet .....		.....			Black can .....		Ra ref. White reflector. Private aid.	
	Thunder Bay Wreck Buoy WR 2 .....	In 18 feet .....		.....			Red sun .....		Ra ref. Red reflector.	
		45 03.7	83 23.6							
(Charts 14864, 14869)										
1313	Thunder Bay Island Light .....	On east shore of island. 45 02.2 83 11.7			28	63	White conical tower, dwelling attached. 67		RBN: 312 kHz (m = m) III. Antenna 640 feet 181' from light tower. HORN: 2 blasts ev 30' (2' bl - 2' si - 2' bl - 2' si). 1832	
1313.51	STONECROFT POINT LIGHT .....	45 06.4 83 18.5					TR on red skeleton tower .....		Private aid. Maintained from Mar. 15 to Nov. 15 1971	
1314	Norameer Wreck Lighted Bell Buoy W.R. Ok. Fl. W.	In 35 feet .....			7		Black .....		Ra ref. 1, 150 feet, 102.5' from last reported position of wreck.	1905
1315	Middle Island Light .....	On east side of island. 45 11.6 83 19.3			18	78	White conical tower with orange bands in middle, dwelling detached. 71			
	Middle Island Buoy 13 .....	In 23 feet, northeast end of shoal.					Black can .....		Green reflector.	
1316	STONEPORT LIGHT .....	On end of the loading dock. 45 17.8 83 25.1		25W 21R	55		White cylindrical structure .....		Private aid.	1955
	Alt. Fl. W. & R., 60' 3' Wl., 27' ec. 3' Rfl., 27' ec.									
	Stoneport Approach Buoy 1 .....	In 25 feet .....					Black can .....		Green reflector.	
	Stoneport Buoy 3 .....	In 23 feet .....					Black can .....		Private aid.	
	Stoneport Buoy 5 .....	In 23 feet .....					Black can .....		Private aid.	
	Stoneport Buoy 7 .....	In 23 feet .....					Black can .....		Private aid.	
	Presque Isle Harbor Entrance Shoal Buoy 2 .....	In 20 feet .....					Red sun .....		Red reflector.	
1317	PRESQUE ISLE HARBOR RANGE FRONT LIGHT. F. G.	On west shore of harbor. 45 20.3 83 29.4				23	KRW on white pile .....		Higher intensity beam on bearing 274' diminishing around remainder of horizon.	1870

## WEST SIDE

## LAKE HURON, MICHIGAN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water	(6) Structure Ht. above ground Daymark	(7) Remarks Year
EAST ALPENA CHANNEL						
1318	PRESQUE ISLE HARBOR RANGE REAR LIGHT. F. G.	790 feet 274' from front light.	.....	36	Rectangular international orange daymark with white vertical stripe. 33	1870-1967
1319	HARBOR LODGE RANGE FRONT LIGHT. F. R.	In 10 feet ..... 45 20.5 83 29.2	.....	16	International orange daymark on white pile.	Private aid maintained from May 15 to Oct. 31. 1957
1320	HARBOR LODGE RANGE REAR LIGHT. F. R.	In 6 feet, 500 feet 338.5' from front light.	.....	21	International orange daymark on T. V. antenna.	Private aid maintained from May 15 to Oct. 31. 1957
1321	Presque Isle Light ..... Fl. W., 15 <sup>s</sup> (5' H)	On north end of Presque Isle. 45 21.5 83 29.5	.....	21	123 White conical tower, dwelling attached. 109	1840-1871
	(Chart 14864)					
1322	Adams Point Lighted Buoy 1 ..... Fl. W., 6 <sup>s</sup>  Calcite (Charts 14864, 14880)	In 42 feet, north of point.	.....	7	Black .....	Ra ref.
1323	—BREAKWATER LIGHT ..... E. Int. R., 4 <sup>s</sup>	On outer end of west breakwater. 45 25.0 83 46.4	.....	10	49 White skeleton tower .....	WHISTLE: 1 blast ev 20 <sup>s</sup> (2 <sup>bl</sup> ). Private aid main- tained from Apr. 15 to Dec. 15. 1928-1929
1324	—Basin Lighted Buoy 1 ..... Qk. Fl. G.	In 17 feet .....	.....	.....	Black .....	Private aid. Green reflector.
1325	—Basin Lighted Buoy 3 ..... Qk. Fl. G.	In 17 feet .....	.....	.....	Black .....	Private aid. Green reflector.
1326	—LIGHT ..... F. R.	At inner end of slip ..	.....	191	Neon light 8 feet in diameter, on screen house.	Private aid. 1930
1327	—INCOMING RANGE FRONT LIGHT. F. R.	On south side of slip ..	.....	72	White diamond daymark on conveyor house.	Private aid. 1930
1328	—INCOMING RANGE REAR LIGHT. F. R.	500 feet 236' from front light.	.....	180	.....	Private aid. 1930
1329	—OUTGOING RANGE FRONT LIGHT. F. G.	Near midchannel .....	.....	115	Box on conveyor house .....	Private aid. 1930
1330	—OUTGOING RANGE REAR LIGHT. F. G.	250 feet 236' from front light.	.....	55	Two lights, 10 feet apart horizontally.	Private aid. 1930
ROGERS CITY						
1331	—HARBOR OF REFUGE EAST BREAKWATER LIGHT. F. W., 4 <sup>s</sup>	On end of breakwater ..	.....	23	White triangular daymark on pipe. 23	Higher intensity beam on bearing 228° diminishing around remainder of horizon. Private aid maintained from June 1 to Oct. 1. 1963
1332	—HARBOR OF REFUGE WEST BREAKWATER LIGHT. Fl. G., 4 <sup>s</sup> —Harbor Channel Buoys 1, 2, 3, 4, 5, 6, 7, 8, 9 and 11.	On end of breakwater ..	.....	23	Pipe .....	Private aid maintained from June 1 to Oct. 1. 1963
		In 5 to 9 feet of water marks small boat channel.	.....	.....	Odd numbered, black spar; even numbered, red spar.	Odd numbered white reflector, even numbered red reflector. Private aid maintained from June 1 to Oct. 1.
WEST SIDE						
1333	Forty-Mile Point Light ..... E. Int. W., 10 <sup>s</sup>	On mainland ..... 45 29.2 83 54.8	.....	17	66 White square brick tower on dwelling. 53	1897-1935

## NORTHWEST END

## LAKE HURON, MICHIGAN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water	(6) Structure Ht. above ground Daymark	(7) Remarks	Year
(Charts 14881, 14880)							
1334	HAMMOND BAY HARBOR OF REFUGE EAST BREAKWATER LIGHT. Fl. W., 4 <sup>s</sup>	On north end of east breakwater. 45 35.6 84 09.7		9 25	SB on black column		1963
1335	HAMMOND BAY HARBOR OF REFUGE WEST BREAKWATER LIGHT. Fl. R., 4 <sup>s</sup>	On north end of west breakwater.		6 25	TR on red column		1963
	Raynolds Reef Buoy 1.....	In 20 feet .....			Black can.....	White reflector.	
	Raynolds Reef Buoy 2.....	In 26 feet .....			Red sun .....	Red reflector.	
STRAITS OF MACKINAC							
SOUTH CHANNEL							
1336	Spectacle Reef Light .....	On west edge of reef. 45 46.4 84 08.2		28W 23R	86 Gray conical tower on square concrete pier.	HORN: 2 blasts ev 30 <sup>s</sup> (2 <sup>bl</sup> -2 <sup>si</sup> -2 <sup>bl</sup> -24 <sup>si</sup> ). Operates continuously. Winter light. Fl. W., 2.5 <sup>s</sup> .	
1337	Cordwood Point Lighted Buoy 1 .. Fl. G., 4 <sup>s</sup>	In 30 feet, on north- erly side of shoal.		4	Black .....	Ra ref. Can; winter marker.	
1338	Poe Reef Light .....	In 23 feet, on east end of reef, north side of channel. 45 41.7 84 21.7		16	71 White and black horizontally banded square tower on concrete crib.	Winter light shows Fl. W. 6 <sup>s</sup> . (1 <sup>s</sup> fl). RBN: 302 kHz (s m) II. Antenna at light tower. HORN: 1 blast ev 30 <sup>s</sup> (3 <sup>bl</sup> ). Operates con- tinuously. 1929	
	Poe Reef Buoy 2.....	In 24 feet, southeast of Poe Reef Light- house.			Red sun.....	Red reflector.	
1339	Fourteen Foot Shoal Light..... Occ. W., 4 <sup>s</sup> (3 <sup>bl</sup> )	In 14 feet .....		10 15	White conical tower, square structure on concrete crib.	Higher intensity toward Mackinac Bridge. HORN: 1 blast ev 15 <sup>s</sup> (2 <sup>bl</sup> ). 1930	
	Fourteen Foot Shoal Buoy 3 .....	In 29 feet .....			Black can ..	Ra ref. White reflector.	
Cheboygan							
1340	—CRIB LIGHT .....	On west side of dredged entrance to Cheboygan River. 45 39.8 84 27.6		7 37	White octagonal tower on crib ..		1884-1910
1341	—RIVER RANGE FRONT LIGHT. F. R.	In city of Cheboygan, on river bank. 45 38.9 84 28.3			45 Red daymark with white vertical stripe on white square tower on dwelling.		1880
1342	—RIVER RANGE REAR LIGHT .. F. R.	1,115 feet 212½' from front light.			75 Red daymark with white vertical stripe on black skeleton tower.		1800-1900
1343	—RIVER LIGHT 4 .....	On north end of pier- head.		7 25	TR on white column.....		1968
MICHIGAN INLAND ROUTE (Chart 14886)							
	—Buoy 1 .....	In 15 feet. ....			Black can .....	Green reflector.	
	—Daybeacons 3, 5, 6, 7, 9, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21.	In 5 to 8 feet .....			Odd numbered, SG on pile struc- ture or single pile; even num- bered, TR on pile structure or single pile.		

## MICHIGAN INLAND ROUTE

## LAKE HURON, MICHIGAN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water	(6) Structure Ht. above ground Daymark	(7) Remarks Year
1344	MULLET LAKE NORTH END BULKHEAD LIGHT. Fl. G., 4 <sup>s</sup>	On bulkhead .....		7	15 SG on white column .....	Higher intensity beam on bearing 027° diminishing remainder of horizon.
	— Buoy 23 .....	In 5 feet, at entrance Mullet Lake.			Black can .....	Green reflector.
	— Buoy 24 .....	In 14 feet, on south-east side of a detached shoal.			Red nun .....	Red reflector.
1344.10	ALOHA STATE PARK NORTH JETTY LIGHT. Fl. G., 2 <sup>s</sup>	On north jetty .....			16 On pile .....	Private aid maintained from May 1 to Dec. 1. 1974
1344.20	ALOHA STATE PARK SOUTH JETTY LIGHT. Fl. R., 2 <sup>s</sup>	On south jetty .....			16 On pile .....	Private aid maintained from May 1 to Dec. 1. 1974
1345	— Lighted Buoy 24A Fl. W., 4 <sup>s</sup>	In 9 feet, on west side of entrance to Indian River.		6	Red .....	Nun; winter marker.
	— Daybeacons 25, 27, 28, 29, 30, 31, 32.	In 5 to 6 feet .....			Odd numbered, SB on pile structure or single pile, even numbered, TR on pile structure or single pile.	
	— Daybeacons 34, 35, 37, 39, 40, 41, 42, 43, 44, 45, 46, 48, 50, 52, 53, 54, 55, 57, 58, 60, 61, 62, 63, 66, 67, 68.	In 3 to 6 feet .....			Odd numbered, SB on pile structure or single pile; even numbered, TR with red border on pile structure or single pile.	
1346	— INDIAN RIVER ENTRANCE LIGHT. Fl. W., 4 <sup>s</sup>	On north bulkhead at western entrance.		8	15 SB on white column .....	1958-1965
1347	— LIGHT 71 Fl. W., 4 <sup>s</sup>	In 5 feet, at mouth of Crooked River.		6	15 SB on pile structure .....	1958
	— Daybeacons 73, 75 .....	In 4 to 5 feet .....			SB on pile structure .....	
1348	— LIGHT 77 Fl. W., 4 <sup>s</sup>	In 3 feet, at head of Crooked River.		6	15 SB on pile structure .....	1958
	— Buoy 79 .....	In 4 feet .....			Black can .....	Green reflector.
	— Buoy 80 .....	In 4 feet .....			Red nun .....	Red reflector.
1349	PICKEREL CHANNEL ENTRANCE LIGHT 2. Fl. W., 4 <sup>s</sup>	In 5 feet, at entrance to Pickerel Channel.		6	15 TR on pile structure .....	1958
	— Buoy 81, 82 .....	In 4 feet .....			Odd numbered, black can; even numbered, red nun.	Odd numbered green reflector; even numbered, red reflector.
	— Daybeacons 83, 84, 85, 86, 87.	In 4 feet .....			Odd numbered, SB on pile structure or single pile; even numbered, TR on pile structure or single pile. 85, 87 SG on pile.	
STRAITS OF MACKINAC SOUTH CHANNEL (Charts 14881, 14880)						
1350	Cheboygan Buoy 5 Cheboygan Traffic Lighted Bell Buoy. Mo. (A) W.	In 22 feet .....			Black can .....	White reflector.
		In 84 feet, south of Point aux Pins.		6	Black and white vertical stripes.	Ra ref. NOTE: Vessels are requested to leave buoy on port hand in passing.
1351	Cedarville Wreck Lighted Buoy WR. I. Ql. Fl. W.	In 100 feet, about 90 feet north from last reported position of wreck. 45 47.2 84 40.3		6	Black and red horizontal bands .....	Ra ref. Marks wreck of CEDARVILLE. Can; winter marker.
	Zela Shoal Buoy 6 .....	In 30 feet, on west end of shoal.			Red nun .....	Red reflector.

## STRAITS OF MACKINAC

## LAKE HURON, MICHIGAN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.		(4) Nominal Range	(5) Ht. above water	(6) Ht. above ground Structure	(7) Daymark Remarks Year
SOUTH CHANNEL							
1352	MACKINAC ISLAND FERRY LIGHT. Alt. E. Int. G. & W., 8' 2°Glt., 2°ec. 2°Wlt., 2°ec.	On dock .....		.....	15	.....	HORN: band, 1 blast ev 105' (15°bl) when ves- sels are approaching the ferry dock. Private aid maintained from May 1 to Dec. 1.
1353	Mackinac City State Pier Fog Signal.	On outer end of pier .		.....	64	Gray concrete structure .....	HORN: 1 blast ev 4' (2°bl). Private aid maintained from May 1 to Oct. 1. 1968
1354	MACKINAW CITY LIGHT .....	On end of M. C. R. R. dock.		.....	16	On frame building .....	HORN: 2 blasts ev 30' (1.5°bl-2°sl-1.5°bl- 25°sl). Private aid. 1968
1357	MACKINAW CITY HARBOR ENTRANCE LIGHT 1 Fl. G., 4'	On end of breakwater.		.....	6	25 SB on pile .....	1968
1358	MACKINAW CITY HARBOR ENTRANCE LIGHT 2 Fl. R., 4'	On end of breakwater.		.....	6	TR on pile .....	1968
NORTH END (Charts 14881, 14880) (For St. Marys River, see No. 1450)							
1359	Martin Reef Light .....	In 6 (90'), on south end of reef. 45 54.8 84 08.9		.....	16	65 White square tower on concrete crib.	DIAPHONE: 1 blast ev 30' (3°bl). Operates continuously. Winter light. 1927 Fl. W., 4'.
(Chart 14885)							
1360	Pomeroy Reef Lighted Gong Buoy 2PR. Fl. W., 4'	In 38 feet, western end of Pomeroy Reef.		.....	7	Red .....	Ra ref. Nun; winter marker.
	Tobin Reef Buoy 1 .....	In 13 feet .....		.....	.....	Black can .....	Ra ref. White reflector.
	Whitefish Point Reef Buoy .....	In 4 feet .....		.....	.....	Red nun .....	Private aid maintained from May 1 to Nov. 1.
PRENTISS BAY							
	Rover Island North Point Buoy ...	In 13 feet .....		.....	.....	Black can .....	Private aid maintained from May 1 to Nov. 1.
	— East Shoal South Buoy .....	In 11 feet .....		.....	.....	Orange and white horizontal bands.	Private aid maintained from May 1 to Nov. 1.
	— East Shoal North Buoy .....	In 11 feet .....		.....	.....	Orange and white horizontal bands.	Private aid maintained from May 1 to Nov. 1.
	— Middle Shoal South Buoy .....	In 7 feet .....		.....	.....	Orange and White horizontal bands.	Private aid maintained from May 1 to Nov. 1.
	— North Shoal Southeast Buoy ...	In 14 feet .....		.....	.....	Orange and White horizontal bands.	Private aid maintained from May 1 to Nov. 1.
	— North Shoal Northwest Buoy ...	In 10 feet .....		.....	.....	Orange and White horizontal bands.	Private aid maintained from May 1 to Nov. 1.
NORTH END							
1361	CROW ISLAND LEADING LIGHT ..	On northwestern end of Crow Island. 45 58.1 84 14.4		.....	13	31 Gray tower with orange rectangular daymark.	Higher intensity beam on bearing 345° diminishing around remainder of horizon. Private aid maintained from Apr. 1 to Dec. 1. 1962

## NORTH END

## LAKE HURON, MICHIGAN

(1)	(2)	(3)		(4)	(5)	(6)	(7)		
No.	Name	Location		Nominal Range	Ht. above water	Structure	Daymark	Remarks	Year
No.	Characteristic	Lat. N.	Long. W.				Daymark	Remarks	Year
1362	<i>Les Cheneaux Islands Lighted Buoy 2.</i> Fl. R., 4 <sup>s</sup>	In 35 feet				Red		Ra ref. Private aid maintained from Apr. 1 to Dec. 1. 1962	
1363	<i>Les Cheneaux Islands Lighted Buoy 3.</i> Fl. G., 4 <sup>s</sup>	In 31 feet				Black		Ra ref. Private aid maintained from Apr. 1 to Dec. 1.	
	Port Dolomite Point Buoy	In 9 feet				Red nun		Private aid maintained from May 1 to Nov. 1.	
1364	<i>McKay Bay Lighted Buoy 5.</i> Fl. W., 4 <sup>s</sup>	45 58.9 84 16.1 In 14 feet				Black		Ra ref. Private aid maintained from Apr. 1 to Dec. 1.	
	McKay Bay Buoy 7	In 22 feet				Black can		Private aid maintained from Apr. 1 to Dec. 1.	
1365	McKAY BAY RANGE FRONT LIGHT. F. G.	Southeastern end of loading dock. 45 59.0 84 16.5			23	White diamond daymark on white structure.		Private aid maintained from Apr. 1 to Dec. 1. 1955	
1366	McKAY BAY RANGE REAR LIGHT. F. G.	On northeastern end of conveyor gallery, 600 feet 309' from front light.			58	White diamond with black X on daymark on white structure.		Private aid maintained from Apr. 1 to Dec. 1. 1955	
	McKay Bay South Shoal Buoy	In 3 feet				Orange and White horizontal bands.		Private aid maintained from May 1 to Nov. 1.	
	McKay Bay North Shoal Buoy	In 2 feet				Orange and White horizontal bands.		Private aid maintained from May 1 to Nov. 1.	
	Gravelly Island Shoal Buoy 1	In 33 feet				Black can		White reflector.	
	Stroongs Island South Point Buoy	In 6 feet				Red nun		Private aid maintained from May 1 to Nov. 1.	
	Crow Point Buoy	In 8 feet 45 58.4 84 16.7				Red nun		Private aid maintained from May 1 to Nov. 1.	
	Hamel Point Buoy	In 13 feet 45 58.2 84 17.0				Red nun		Private aid maintained from May 1 to Nov. 1.	
	Hill Island South End Buoy	In 2 feet				Red nun		Private aid maintained from May 1 to Nov. 1.	
	Hill Island Mid-Channel Buoy	In 3 feet 45 58.5 84 17.8				Orange and White horizontal bands.		Private aid maintained from May 1 to Nov. 1.	
MOSCOW CHANNEL									
	— South Buoy	In 3 feet 45 59.1 84 18.3				Orange and White horizontal bands.		Private aid maintained from May 1 to Nov. 1.	
	— East Buoy	In 3 feet				Orange and White horizontal bands.		Private aid maintained from May 1 to Nov. 1.	
	— West Buoy	In 3 feet				Orange and White horizontal bands.		Private aid maintained from May 1 to Nov. 1.	
	— North Buoy	In 3 feet				Orange and White horizontal bands.		Private aid maintained from May 1 to Nov. 1.	
NORTH END									
1367	<i>Penny Island Point Lighted Buoy 1.</i> Fl. W., 4 <sup>s</sup>	In 26 feet, end of shoal off point entrance to Scammons Harbor. 45 56.9 84 17.1			6	Black			
	Scammons Harbor Buoy 3	In 38 feet				Black can		White reflector.	
1367.50	<i>Scammons Harbor Lighted Buoy 4.</i> Fl. R., 2. 5 <sup>s</sup>	In 20 feet			4	Red		Red reflector. from 1 May to Nov. 1.	
1368	ISLE ISIDORE LIGHT Fl. W., 4 <sup>s</sup>	On south end of island No. 8, Les Cheneaux Islands. 45 58.2 84 18.3			15	White triangular tower		Private aid maintained from July to Sept. 1916	

## NORTH END

## LAKE HURON, MICHIGAN

(1)	(2)	(3)		(4)	(5)	(6)	(7)		
No.	Name	Location	Nominal Range	Ht. above water	Ht. above ground	Structure	Daymark	Remarks	Year
CEDARVILLE EAST CHANNEL									
	— Buoy 5 .....	In 22 feet, marks erly limit of shoal off Bay Point.				Black can .....		White reflector.	
	— Buoy 6 .....	In 9 feet .....				Red nun .....		Red reflector.	
1369.10	— Lighted Buoy 7 Fl. G., 4 <sup>1</sup>	In 9 feet .....		4		Black .....		White reflector.	
	Hills Point Shoal Buoy .....	In 6 feet .....				Orange and white horizontal bands.		Private aid maintained from May 1 to Nov. 1.	
	— Buoy 9,8,11,10,12,13 .....	In 7 to 15 feet .....				Even numbered, red nun; odd numbered, black can.		Even numbered, red re- flector; odd numbered, white reflector.	
	Ailes Point Buoy .....	In 9 feet .....				Red nun .....		Private aid maintained from May 1 to Nov. 1.	
LES CHENEAUX ISLANDS MIDDLE ENTRANCE									
	— Buoy 1 .....	In 12 feet, marks southeast limit of shoal.				Black can .....		White reflector.	
	— Buoy 3 .....	45 56.8 84 20.0 In 34 feet .....				Black can .....		White reflector.	
	— Buoy 5,8,10 .....	In 8 to 9 feet .....				Even numbered, red nun; odd numbered, black can.		Even numbered, red reflector; odd numbe- red white reflector.	
NORTH END									
	Goose Island Shoal Buoy 1 .....	In 29 feet, marks southeasterly limits of shoal.				Black can .....		White reflector.	
1369.50	Goose Island Shoal Lighted Buoy 2 Fl. R., 4 <sup>1</sup>	In 29 feet, marks northwestern limits of shoal.		4		Red .....		Nun; winter marker.	
LES CHENEAUX ISLANDS WEST ENTRANCE									
1370	— Lighted Buoy 1 Fl. W., 4 <sup>1</sup>	In 26 feet, end of shoal.		6		Black .....			
	Birch Island Shoal South Buoy .....	45 57.8 84 27.1 In 4 feet .....				Black can .....		Private aid maintained from May 1 to Nov. 1.	
	Birch Island Shoal Northwest Buoy .....	45 58.1 84 26.0 In 3 feet .....				Red nun .....		Private aid maintained from May 1 to Nov. 1.	
	Long Island Shoal Northwest Buoy .....	In 3 feet .....				Orange and White horizontal bands.		Private aid maintained from May 1 to Nov. 1.	
	Long Island Shoal Southeast Buoy .....	In 11 feet .....				Orange and white horizontal bands.		Private aid maintained from May 1 to Nov. 1.	
1371	— Lighted Buoy 2 Fl. R., 4 <sup>1</sup>	45 58.3 84 25.5 In 18 feet, marks southwest limit of shoal.		4		Red .....		Ra ref.	
	Long Island Northwest Buoy .....	In 3 feet .....				Red nun .....		Private aid maintained May 1 to Nov. 1.	
	Horse Rock Southeast Buoy .....	In 11 feet .....				Black can .....		Private aid maintained from May 1 to Nov. 1.	
	Horse Rock South Buoy .....	45 59.4 84 27.5 In 7 feet .....				Orange and White horizontal bands.		Private aid maintained from May 1 to Nov. 1.	
	Horse Rock East Buoy .....	In 2 feet .....				Orange and White horizontal bands.		Private aid maintained from May 1 to Nov. 1.	
	Horse Rock Southeast Shoal Buoy .....	In 2 feet .....				Orange and White horizontal bands.		Private aid maintained from May 1 to Nov. 1.	

## NORTH END

## LAKE HURON, MICHIGAN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water	(6) Structure Daymark	(7) Remarks Year
<b>LES CHENEAUX ISLANDS</b>						
	Misner Bay Southeast Buoy	In 4 feet 45 59.7 84 26.8			Orange and white horizontal bands.	Private aid maintained from May 1 to Nov. 1.
	Misner Bay Northwest Buoy	In 5 feet			Orange and white horizontal bands.	Private aid maintained from May 1 to Nov. 1.
1372	— Lighted Buoy 3 Fl. G., 4 <sup>s</sup>	In 13 feet, marks shoal southeast of Goat Island.		4	Black	
	Goat Island South Point Reef Buoy	In 2 feet			Black can	Private aid maintained from May 1 to Nov. 1.
	Avery Point Southeast Buoy	In 8 feet 46 00.2 84 26.6			Orange and white horizontal bands.	Private aid maintained from May 1 to Nov. 1.
	Avery Point Northeast Buoy	In 6 feet			Orange and white horizontal bands.	Private aid maintained from May 1 to Nov. 1.
1373	— Lighted Buoy 4 Fl. R., 4 <sup>s</sup>	In 17 feet, marks easterly limit of shoal.		4	Red	Red reflector.
	Goat Island West Shoal Buoy	In 1 foot			Orange and white horizontal bands.	Private aid maintained from May 1 to Nov. 1.
	Goat Island East Shoal Buoy	In 1 foot			Orange and white horizontal bands.	Private aid maintained from May 1 to Nov. 1.
	— Buoy 5	In 20 feet			Black can	White reflector.
	— Buoy 6	In 9 feet			Red nun	Red reflector.
	Hessel Crib Buoy A, B	In 2 feet			Orange and white horizontal bands.	Private aid maintained from May 1 to Nov. 1.
	— Buoy 8	In 8 feet			Red nun	Red reflector.
	Cube Point Buoy	In 9 feet 45 59.6 84 25.8			Red nun	Private aid maintained from May 1 to Nov. 1.
	Hessel Point Buoy	In 7 feet			Black can	Private aid maintained from May 1 to Nov. 1.
	Club Point Shoal Buoy A, B, C	In 4 feet			Orange and white horizontal bands.	Private aid maintained from May 1 to Nov. 1.
<b>Mockinac Bay Passage</b>						
	— Buoy 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23.	In 7 to 17 feet			Odd numbered, black can; even numbered, red nun.	Odd numbered, white reflector; even numbered red reflector.
	Dollar Island Southwest Buoy	In 2 feet			Orange and white horizontal bands.	Private aid maintained from May 1 to Nov. 1.
	Dollar Island Northwest Shoal Buoy	In 2 feet			Orange and white horizontal bands.	Private aid maintained from May 1 to Nov. 1.
	Dollar Island Shoal Southeast Buoy	In 2 feet			Orange and white horizontal bands.	Private aid maintained from May 1 to Nov. 1.
<b>MUSCALLONGE BAY</b>						
	— Buoys 25, 24, 26, 27	In 8 to 12 feet			Odd numbered, black can; even numbered, red nun.	Odd numbered, white reflector; even numbered, red reflector.
	Pleasant Point North Buoy	In 3 feet 45 58.4 84 22.1			Orange and white horizontal bands.	Private aid maintained from May 1 to Nov. 1.
	Pleasant Point East Buoy	In 3 feet			Orange and white horizontal bands.	Private aid maintained from May 1 to Nov. 1.
	Pleasant Point South Buoy	In 3 feet			Black can	Private aid maintained from May 1 to Nov. 1.
	Pleasant Point Bay West Buoy	In 6 feet			Black can	Private aid maintained from May 1 to Nov. 1.
1374.11	— Lighted Buoy 29 Fl. W., 4 <sup>s</sup>	In 13 feet		6	Black	
	Urie Point Buoy	In 2 feet 45 58.2 84 20.6			Red nun	Private aid maintained from May 1 to Nov. 1.
	Mulchers Point Rocky Reef Buoy	In 2 feet			Orange and white horizontal bands marked ROCK.	Private aid maintained from May 1 to Nov. 1.

## NORTH END

## LAKE HURON, MICHIGAN

(1)	(2)	(3)		(4)	(5)	(6)	(7)
No.	Name	Lat. N.	Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure
No.	Characteristic	Lat. N.	Long. W.				Daymark
<b>MUSCALLONGE BAY</b>							
	Gull Island Shoal South Buoy.....	In 2 feet.....				Orange and white horizontal bands marked SHOAL.	Private aid maintained from May 1 to Nov. 1.
	Cedarville West Channel Buoy 30.	In 8 feet.....				Red nun.....	Red reflector.
1374.30	Cedarville West Channel Lighted Buoy 31. Fl. G., 4 <sup>s</sup>	In 8 feet.....		4		Black.....	White reflector.
	Cedarville West Channel Buoy 32, 33, 34, 35.	In 6 to 9 feet.....				Odd numbered, black can; even numbered, red nun.	Odd numbered white reflector; even numbered red reflector.
	(For Cedarville East Channel, see No. 1369)						
<b>STRAITS OF MACKINAC</b> (Charts 14881, 14880)							
1375	Bois Blanc Light..... Fl. W., 4 <sup>s</sup>	On point, east end of Bois Blanc Island. 45 48.7 84 25.3			8	42 27	White skeleton tower with small house. Visible from 101° to 311°. 1839-1942
<b>ROUND ISLAND PASSAGE</b>							
1376	Mission Point Lighted Bell Buoy 2. Qk. Fl. R.	In 36 feet, on edge of shoal making off point.			4	Red.....	Ra ref. Nun; winter marker.
1377	MACKINAW ISLAND EAST BREAKWATER LIGHT 2. Fl. W., 4 <sup>s</sup>	On south end of breakwater.			7	25	TR on white pile..... 1941-1967
1378	MACKINAW ISLAND WEST BREAKWATER LIGHT 1. Qk. Fl. W.	On outer end of breakwater.			6	16	SB on white skeleton tower.... 1970
1379	STRAITS TRANSIT PIER LIGHT.. F. W.	On end of pier.....				Pile.....	SIREN: 1 blast ev 30 <sup>s</sup> (5 <sup>bl</sup> ) (5 <sup>bl</sup> ). Private aid maintained from 15 May to 15 Oct. 1968
1380	PASSENGER PIERHEAD LIGHT.. F. R.	On outer end of pier.....				20	White mast..... BELL: Hand. Private aid maintained from May 1 to Oct. 1.
1381	COAL DOCK PIERHEAD LIGHT.. F. W.	On outer end of pier.....				14	White mast..... Private aid maintained from May 1 to Oct. 1. 1932
1382	Round Island Lighted Buoy 3..... Fl. G., 4 <sup>s</sup>	In 27 feet, at outer end of shoal, north of island.			4	Black.....	Ra ref. Can; winter marker.
1383	Round Island Passage Light..... E. Int. R., 10 <sup>s</sup>	In 26 feet, on north side of channel. 45 50.6 84 36.9			16	White skeleton tower on octagonal white structure on red square house on white base.	MKR RBN: 322 kHz. Antenna at light tower. HORN: 1 blast ev 30 <sup>s</sup> (3 <sup>bl</sup> ). Higher intensity beam in easterly and south-westerly directions. 1948
1384	Round Island Shoal Lighted Buoy 5. Qk. Fl. G.	In 31 feet, marks end of shoal northwesterly of island.			4	Black.....	Ra ref. Can; winter marker.
	Majors Shoal East Buoy 1.....	In 26 feet, on east end of shoal.				Black can.....	White reflector.
1385	Majors Shoal Lighted Buoy 3..... Fl. G., 4 <sup>s</sup>	In 20 feet, at west end of shoal.			4	Black.....	Ra ref. Can; winter marker.
1386	North Graham Shoal Lighted Bell Buoy 3. Fl. G., 4 <sup>s</sup>	In 30 feet, on east end of shoal.			4	Black.....	Ra ref. Can; winter marker.

## STRAITS OF MACKINAC

## LAKE HURON, MICHIGAN AND CANADA

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water Ht. above ground	(6) Structure Daymark	(7) Remarks Year
1391	ST. IGNACE STATE PIER LIGHT. E. Int. W., 2 <sup>s</sup>	On end of pier .....	.....	24	White skeleton tower .....	HORN: 1 blast ev 4 <sup>s</sup> (2 <sup>bl</sup> ). Maintained from Apr. 1 to Dec. 31. Private aid Maintained from May 1 to Oct. 1. 1966
1392	ST. IGNACE MARINA LIGHT .....	On end of pier .....	.....	10	.....	Private aid maintained from May 1 to Oct. 1. 1965
1393	NORTHWESTERN DOCK LIGHT ... Fl. R., 4 <sup>s</sup>	In 22 feet, in East Morgan Bay. ....	.....	20	Dolphin .....	Private aid maintained from Apr. 15 to Dec. 15. 1958
1394	Mackinac Bridge Lighted Bell Buoy 1. Fl. G., 4 <sup>s</sup>	In 100 feet .....	45 48.4 84 42.5	4	Black .....	Ra ref.
1395	Mackinac Bridge Lighted Gong Buoy 2. Fl. R., 4 <sup>s</sup>	In 110 feet .....	.....	4	Red .....	Ra ref.
	South Graham Shoal Buoy 2A .....	In 24 feet, on south side of shoal. ....	.....	.....	Red .....	Ra ref. Nun; winter marker.
	Mackinac Bridge Buoy 3 .....	In 200 feet .....	.....	.....	Black can. ....	Ra ref. White reflector.
	Mackinac Bridge Buoy 4 .....	In 90 feet .....	.....	.....	Red sun. ....	Ra ref. Red reflector.
1396	Mackinaw Bridge Fog Signal .....	On Main span on centerline of channel. ....	.....	.....	.....	HORN: 2 blasts ev 20 <sup>s</sup> (2 <sup>bl</sup> -2 <sup>bl</sup> -2 <sup>bl</sup> -14 <sup>bl</sup> ). Private aid. 1961
	Mackinac Bridge Buoy 5 .....	In 100 feet .....	.....	.....	Black can. ....	Ra ref. White reflector.
	Mackinac Bridge Buoy 6 .....	In 160 feet .....	.....	.....	Red sun. ....	Ra ref. Red reflector.
1397	Mackinac Bridge Lighted Bell Buoy 7. Fl. G., 2.5 <sup>s</sup>	In 50 feet .....	.....	5	Black .....	Ra ref.
1398	Mackinac Bridge Lighted Gong Buoy 8. Fl. R., 2.5 <sup>s</sup>	In 100 feet .....	.....	5	Red .....	Ra ref.
EAST SIDE (Chart 14862)						
(For Lake Michigan, see No. 2001)						
1399	Kettle Point Reef Lighted Buoy ... Fl. R.	Northwesterly of Kettle Point. C. 43 14.4 82 03.1	.....	.....	Red .....	Ra ref.
1400	KETTLE POINT LIGHT .....	On point. .... C. 43 13.0 82 00.8	.....	32	Red and white diamond daymark on lattice tower.	
1401	Goderich (Main) Light .....	On bank, south side of entrance to Goderich Harbor. C. 43 44.6 81 43.6	.....	18	145 White square stone tower .....	33
1402	GODERICH NORTH PIER RANGE FRONT LIGHT. F. R. F. R.	On pier. .... C. 43 44.8 81 43.9	.....	44 46	White daymark with orange vertical stripe on tower.	Visible 15' each side of range line. Passing light visible around horizon. RBN: 286 kHz (m m m o o o).
1403	GODERICH NORTH PIER RANGE REAR LIGHT. F. R.	On beach, 607 feet, 087° from front light. C.	.....	64	White daymark with orange ver- tical stripe on square skeleton tower.	
(Can. Chart 2291)						
1404	Point Clark Light .....	On end of low point ... C. 44 04.4 81 45.5	.....	15	93 White circular tower .....	

## EAST SIDE

## LAKE HURON, CANADA

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water	(6) Structure Ht. above ground Daymark	(7) Remarks Year
(Can. Chart 2292)						
1404.50	Chonry Island Light Fl. W., 4 <sup>s</sup>	On east side of island 2.5 miles west from Saugeen. C. 44 29.4 81 24.2		103	White circular tower 86	
1405	Loyal Island Light Fl. W., 4 <sup>s</sup>	On west side of island. C. 44 57.1 81 25.1		49	Red and white rectangular daymark on skeleton tower.	
1406	CAPE HURD LIGHT Fl. R., 4 <sup>s</sup>	On cape. C. 45 13.3 81 43.7		29	Daymark on mast	Visible from 357° to 232°
1407	Cove Island Light Fl. W., 5 <sup>s</sup>	On Gig Point, entrance to Georgian Bay. C. 45 19.6 81 44.1		101	White circular tower, dwelling attached.	RBN: 312 kHz (••••) I. FOG HORN: 3 blasts ev 60°(2°bl-3°si-2°bl- 3°si-2°bl-48°si). Winter light Fl. W.
1408	LUCAS ISLAND LIGHT Fl. R., 4 <sup>s</sup>	On north side of island. C. 45 23.6 81 45.0		48	Red and white rectangular daymark on mast.	Visible 040° through 229°
(Can. Chart 2297)						
1409	Great Duck Island Light Gp. Fl. W., 15 <sup>s</sup> fl., 2.5°ec fl., 2.5°ec. fl., 10.0°ec. 3 flashes.	On southwest point of island. C. 45 38.5 82 57.8		108	White octagonal tower 89	RBN: 312 kHz (••••) V. DIAPHONE: 1 blast ev 30°(2.5°bl).
1410	Mississaugi Strait Light F. W.	On west side of Manitoulin Island. C. 45 53.6 83 13.5		46	White square building 37	
GEORGIAN BAY						
1411	OWEN SOUND RANGE FRONT LIGHT. F. G.	On east side of mouth of Sydeham River. C. 44 34.7 80 56.3		50	Trapezoidal daymark with red and white horizontal bands on white skeleton tower.	Visible on rangeline only. RBN: 298 kHz (••••) I.
1412	OWEN SOUND RANGE REAR LIGHT. F. G.	1,060 feet 195° from front light. C. 44 34.7 80 56.3		92	Trapezoidal daymark with red and white horizontal bands on white skeleton tower.	Visible on rangeline only.
(Can. Chart 2201)						
1413	FISHERMAN POINT RANGE FRONT LIGHT. Fl. W., 10 <sup>s</sup> F. G.	On northern extreme of Fisherman Point. C. 44 30.5 80 12.6		42	Green and yellow horizontally striped daymark on lattice tower.	RBN: 298 kHz (••••) II. Green light visible on range line only.
1414	FISHERMAN POINT RANGE REAR LIGHT. F. G.	3,321 feet 150°15' from front light. C. 44 30.5 80 12.6		106	Green and yellow horizontally striped diamond daymark on skeleton tower. 84	Visible on rangeline only.
(Can. Chart 2239)						
1415	Hope Island Light Fl. W., 15 <sup>s</sup> (1.0° fl)	On northeast point of island. C. 44 54.9 80 09.9		55	White square tower, dwelling attached. White fog signal house, green roof, 40 feet 342° from light house.	RBN: 298 kHz (••••) III. FOG HORN: 2 blasts ev 60°(2°bl-3°si-2°bl- 53°si). Horn points 035°.

GEORGIAN BAY

LAKE HURON, CANADA AND MICHIGAN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.		(4) Nominal Range	(5) Ht. above water ground	(6) Structure	(7) Daymark Remarks Year
<b>PARRY SOUND</b> (Can. Chart 2285)							
1416	GEREAUX ISLAND LIGHT Fl. W., 5 <sup>s</sup>	On south side of entrance to Byng Inlet. C. 45 44.7 80 39.6			50 48	Skeleton tower	RBN: 298 kHz (•••••)V. Antenna 217'. HORN: 1 bl. ev 20 (2 <sup>bl</sup> ). RACON: ••••(X)
(Can. Chart 2286)							
1417	Killarney East Light E. Int. W., 4 <sup>s</sup>	On Red Rock Point C. 45 58.1 81 29.3			58	White square tower	HORN: 1 blast ev 30 <sup>s</sup> 3 bl). RBN: 298 kHz (•••••)VI. Antenna at light tower.
<b>NORTH CHANNEL</b>							
1418	Burnt Island Reef Lighted Buoy 1 Fl. G., 2.5 <sup>s</sup>	In 41 feet, marks western edge of 21 foot shoal.		4		Black	
	Cass Island Buoy 5	In 46 feet				Black can	Green reflector.
	Little Cass Island Buoy 7	In 27 feet				Black can	Green reflector.
<b>POTAGANNISSING BAY</b>							
	Sturgeon Bay Shoal Buoy 2	In 24 feet				Red nun	Red reflector.
	Chesney Shoal Buoy 3	In 25 feet				Black can	White reflector.
	Harbor Island Shoal Buoy 5	In 8 feet				Black can	White reflector.
	Drummond Island Shoal Buoy 2	In 12 feet				Red barrel	Private aid.
	Drummond Island Shoal Buoy 4	In 5 feet				Red barrel	Private aid.
	Propeller Island Shoal Buoy 7	In 12 feet				Black can	White reflector.
<b>DRUMMOND ISLAND-SOUTH SIDE</b> (Charts 14882, 14880)							
	Big Shoal Buoy 2	In 14 feet				Red nun	Ra ref. Red reflector.

## DE TOUR PASSAGE

## ST. MARYS RIVER, MICHIGAN

(1)	(2)	(3)	(4)	(5)	(6)	(7)	
No.	Name Characteristic	Location Lat. N. Long. W	Nominal Range	Ht. above water	Ht. above ground	Structure Daymark	Remarks Year
(Charts 14882, 14881, 14880)							
1450	De Tour Reef Light ..... Fl. W., R sector, 10 <sup>s</sup>	In 24 feet, on outer end of reef, west side of entrance to St. Marys River. 45 57.0 83 54.2	28W 23R	74		White square superstructure Square tower, on concrete crib.	Red from 079½° to 189½° Light displayed one hour before sunset to one hour after sunrise and when sound signal is in operation. Winter light Fl. W., 6 <sup>s</sup> . RBN: 320 kHz (=====)I, VI. Antenna at light tower. HORN: 2 blasts ev 60 <sup>s</sup> (3 <sup>bl</sup> -3 <sup>si</sup> -3 <sup>bl</sup> -51 <sup>si</sup> ). 1931
	— Buoy 2.....	In 29 feet, southwest of rocky shoal.				Red nun .....	Red reflector.
	— Buoy 3.....	In 20 feet .....				Black can.....	White reflector.
1451	Crab Island Shoal Lighted Bell Buoy 4. Fl. R., 4 <sup>s</sup>	In 31 feet, off west end of shoal.		5		Red .....	Ra ref. Nun; winter marker.
1452	Drummond Island Shoal Buoy 6 .... FRYING PAN ISLAND LIGHT .... Fl. G., 2.5 <sup>s</sup>	In 24 feet .....		8	20	Red nun .....	Red reflector. Red reflector. Higher intensity beam on bear- ing 356° diminishing around remainder of horizon. 1953
	Drummond Island Shoal Buoy 8 ....	In 18 feet .....				Red nun .....	Red reflector.
<b>LOWER RIVER</b> (Chart 14882)							
1453	WATSON REEFS LIGHT .....	In 5 feet, on reef ...		7	25	SW on black tripod tower with white box near top.	Ra ref. Higher intensity beam up stream. 1960
	Watson Reefs Buoy 7 .....	In 24 feet, marks 18 foot spot at lower ends of reefs.				Black can .....	Ra ref. White reflector.
1454	Watson Reefs Buoy 9..... Pipe Island Shoal Lighted Buoy 1. Fl. G., 2.5 <sup>s</sup>	In 24 feet .....		5		Black .....	White reflector. Can; winter marker.
1455	Sims Point Buoy 2 .....	In 40 feet, on south- east side of shoal.				Red nun .....	Ra ref. Red reflector.
	Pipe Island Light .....	In 14 feet .....		8	52	Yellow octagonal tower, black skeleton superstructure.	Higher intensity beam in a southerly direction. 1888-1937
	E. Int. W., 6 <sup>s</sup>	On south side of island. 46 00.0 83 54.0			44	Red nun .....	Red reflector.
1456	Pipe Island Buoy 10 .....	In 24 feet .....		8	26	SG on black skeleton tower, small house in base, on pier.	1919
	PIPE ISLAND TWINS LIGHT .....	On northeast side of East Twin Island. 46 01.6 83 53.5				Black can .....	Ra ref. White reflector; winter marker.
	Pipe Island Twins Buoy 3 .....	In 24 feet .....				Black can .....	Ra ref. White reflector; winter marker.
1457	SQUAW ISLAND LIGHT .....	On south point of island. 46 02.3 83 54.2		6	26	TR on red skeleton tower, small house in base on pier.	1919
	Sweets Point Shoal Buoy 11 .....	In 28 feet, on east side of shoal.			25	Black can .....	White reflector.
1458	SWEETS POINT LIGHT .....	On northern edge of shoal. 46 02.3 83 56.2		6	44	SW on skeleton tower with white base.	Higher intensity beam on bearing 316°, 121° diminishing around re- mainder of horizon. 1948
1458.10	Lime Island Lighted Buoy 12..... Fl. R., 2.5 <sup>s</sup>	In 40 feet .....		5		Red.....	Nun; winter marker.

## LOWER RIVER

## ST. MARY'S RIVER, MICHIGAN AND CANADA

(1)	(2)	(3)		(4)	(5)	(6)	(7)			
No.	Name Characteristic	Lat. N.	Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure	Daymark	Remarks	Year
1459	Lime Island Traffic Lighted Buoy .. Mo. (A) W.	In 50 feet .....		7	.....		Black and white vertical stripes.		Vessels are required to leave buoy to port when passing. LIB; winter marker.	
1460	Lime Island Lighted Buoy 13 .....	In 28 feet .....		5	.....		Black .....		Can; winter marker.	
1461	Lime Island Lighted Buoy 14 .....	In 25 feet, off north- west end of Lime Island.		4	.....		Red .....		Nun; winter marker.	
1462	ROUND ISLAND LIGHT .....	On northeast side of island.				29	SW on black skeleton tower	.....	Red from 001° to 181°. 1892-1923	
	Fl. W., R. sector, 2.5 <sup>s</sup>	46 06.6	84 01.2							
1463	Round Island Lighted Buoy 15 ... Fl. G., 4 <sup>s</sup>	In 25 feet .....		4	.....		Black .....		Ra ref. White reflector. Can; winter marker.	
	Round Island Buoy 16 .....	In 25 feet .....					Red sun .....		Red reflector.	
1464	Hay Point Reef Lighted Buoy 18 .. Fl. R., 4 <sup>s</sup>	In 26 feet, on channel bank at turn.					Red .....		Nun; winter marker.	
1465	Point Aux Frenes Lighted Buoy 19. Ok. Fl. G.	In 25 feet, on channel bank at turn.		4	.....		Black .....		Can; winter marker.	
	Point Aux Frenes Buoy 20 .....	In 26 feet .....					Red sun .....		Red reflector.	
1466	POINT AUX FRENES PASSING RANGE SOUTH FRONT LIGHT. Fl. W., 2.5 <sup>s</sup>	In 3 feet, 700 feet 101½" from rear light.				24	White daymark on pile	.....	Visible from 246° to 319°. 1943-1952	
1467	POINT AUX FRENES PASSING RANGE REAR LIGHT. F. W.	On northeast end of point.				50	White daymark on pile	.....	Visible from 175° to 315°. Lights on these ranges will be maintained only at the opening and closing of navigation, when lighted buoys are not in place. 1943	
		46 07.9	84 01.7			46				
1468	POINT AUX FRENES PASSING RANGE NORTH FRONT LIGHT. Fl. W., 2.5 <sup>s</sup>	In 3 feet, 540 feet 042" from rear light.				24	White daymark on pile	.....	Visible from 170° to 255°. 1943-1952	
1469	Point Aux Frenes Lighted Bell Buoy 21. Ok. Fl. W.	In 24 feet on channel bank at turn.		5	10		Black .....		Ra ref. Can; winter marker.	
1470	Point Aux Frenes Lighted Buoy 22. Fl. R., 4 <sup>s</sup>	In 26 feet, at turn of channel.		4	.....		Red .....		Nun; winter marker.	
1471	Point Aux Frenes Lighted Buoy 23. Fl. W., 4 <sup>s</sup>	In 28 feet .....		6	.....		Black .....		Ra ref. Can; winter marker.	
1472	Point Aux Frenes Lighted Buoy 24. Fl. R., 4 <sup>s</sup>	In 28 feet .....		4	.....		Red .....		Ra ref. Nun; winter	
<b>MUNUSCONG LAKE</b>										
(Chart 14883)										
1473	WINTER POINT RANGE FRONT LIGHT. F. W. Fl. W., 2.5 <sup>s</sup>	On south end of Neebish Island.				45	Red daymark on white skeleton tower.		Visible 4" each side of range line. Passing light operational during winter navigation season only. 1892-1959	
		46 13.6	84 08.7			43				
1474	WINTER POINT RANGE REAR LIGHT. F. W.	4,000 feet, 321" from front light.				82	Red daymark on white skeleton tower.		Visible 4" each side of range- line.	
						60				
(Chart 14882)										
1475	HAY POINT RANGE FRONT LIGHT. F. W.	On St. Joseph Island C.				38	Red and white horizontal striped daymark on skeleton tower.			
		46 07.7	84 00.0			60				
1476	HAY POINT RANGE REAR LIGHT. F. W.	1,100 feet, 128" from front light.					Red and white horizontal striped daymark on skeleton tower.			
	— Buoy 25 .....	In 27 feet .....					Black can .....		White reflector.	

## MUNUSCONG LAKE

## ST. MARYS RIVER, MICHIGAN AND CANADA

(1)	(2)	(3)	(4)	(5)	(6)	(7)		
No.	Name Characteristic	Location Lat. N. Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure Daymark	Remarks	Year
(Chart 14883)								
1477	—Lighted Buoy 26 Fl. R., 4 <sup>s</sup>	In 30 feet		4	Red		Nun; winter marker.	
MUNUSCONG CHANNEL								
1478	—Junction Lighted Bell Buoy I. Qk. Fl. W.	In 35 feet, at turn into Sailors Encampment Channel.		5	Black and red horizontal bands.		LIB; winter marker.	
1479	—Lighted Buoy 2 Fl. R., 4 <sup>s</sup>	In 27 feet		4	Red		Ra ref. Nun; winter marker.	
(For West Neebish Channel, see 1526)								
	— Buoy 3	In 27 feet			Black can		White reflector.	
	— Buoy 4	In 21 feet			Red nun		Red reflector.	
1480	—Lighted Buoy 5 Fl. W., 2.5 <sup>s</sup>	In 27 feet		6	Black		Ra ref. Can; winter marker.	
1481	—Lighted Buoy 6 Qk. Fl. R.	In 27 feet		4	Red		Ra ref. LIB; winter marker	
	— Buoy 7	In 27 feet			Black can		Ra ref. White reflector.	
1482	—Lighted Buoy 8 Qk. Fl. R.	In 30 feet, marks turn in channel.		4	Red		IB; winter marker.	
1483	—Lighted Buoy 9 Fl. W., 4 <sup>s</sup>	In 27 feet			Black		Can; winter marker.	
	— Buoy 10	In 27 feet			Red nun		Ra ref. Red reflector.	
	— Buoy 11	In 27 feet			Black can		White reflector.	
1484	—Lighted Buoy 12 Fl. R., 4 <sup>s</sup>	In 21 feet		4	Red		Nun; winter marker.	
1485	—Lighted Buoy 13 Fl. W., 4 <sup>s</sup>	In 27 feet		6	Black		Ra ref. Can; winter marker	
	— Buoy 14	In 21 feet, off everens Point. C.			Red nun		Ra ref.	
	— Buoy 15	In 27 feet			Black can		White reflector.	
SAILORS ENCAMPMENT CHANNEL								
1486	—WEST RANGE FRONT LIGHT. F. W.	On Rains Hill, St. Joseph Island. C. 46 15. 6 84 05. 8			77	Red and white horizontally banded daymark on tower.	Range lights visible on range line only.	
1487	—WEST RANGE REAR LIGHT F. W.	2, 082 feet, 016°40' from front light. C.			108	Red and white horizontally banded daymark on tower.		
1488	—Everens Point Lighted Buoy 16. Fl. R.	In 21 feet, abreast Sailors Encampment Mill Dock. C.				Red	Ra ref.	
1489	—Lighted Buoy 17 Fl. W., 4 <sup>s</sup>	In 27 feet, abreast Sailors Encampment Mill Dock.		6	Black		Ra ref. Can; winter marker.	
	— Buoy 18	In 21 feet C.			Red nun		Ra ref. Red reflector.	
1490	JOHNSONS POINT LIGHT 19 Fl. G., 2.5 <sup>s</sup>	On point, at turn into Dark Hole Passage at Coast Guard Look- out Tower No. 1. 46 15. 3 84 06. 1		8	29	SG on pile	Higher intensity beam up and down stream.	1914
	— Buoy 20	In 21 feet C.			Red nun		Ra ref. Red reflector.	
1491	—Lighted Buoy 21 Qk. Fl. W.	In 27 feet, on west side of channel, north of Point.		5	Black		Ra ref. IB; winter marker	

SAILORS ENCAMPMENT  
CHANNEL

## ST. MARYS RIVER, MICHIGAN AND CANADA

(1)	(2)	(3)		(4)	(5)	(6)		(7)		
No.	Name Characteristic	Lat. N.	Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure	Daymark	Remarks	Year
1492	RAINS WHARF RANGE FRONT LIGHT. F. W. F. W.	On shore, north of wharf, St. Joseph Island, C. 46 15.3 84 05.7		.....	31 33	Red square daymark on lattice tower.			Passing light visible around horizon.	
1493	RAINS WHARF RANGE REAR LIGHT. F. W.	861 feet, 135° from front light. C.		.....	50	Red square daymark on tower ...				
1494	POINT OF WOODS RANGE FRONT LIGHT. F. W.	On east side of Neebish Island. 46 16.2 84 07.3		.....	26	KRW on mast, small house on skeleton tower on piles. 26			Visible on range line only. Passing light operated during winter navigation season only. 1892-1921	
1495	POINT OF WOODS RANGE REAR LIGHT. F. W.	600 feet 314° from front light.		.....	42	KRW on mast on small red house.				
	— Buoy 22 .....	In 21 feet	C.	.....		Red sun .....			Ra ref. Red reflector.	
	— Buoy 23 .....	In 27 feet		.....		Black can .....			White reflector.	
	— Buoy 24 .....	In 21 feet	C.	.....		Red sun .....			Ra ref. Red reflector.	
	— Buoy 25 .....	In 27 feet		.....		Black can .....			White reflector.	
	— Buoy 26 .....	In 21 feet	C.	.....		Red sun .....			Ra ref. Red reflector.	
<b>MUNUSCONG CHANNEL</b>										
	Dark Hole East Range Front Daybeacon.	On point of Neebish Island. 46 15.9 84 06.9		.....		White square pyramidal tower ...			Range marks eastern half of channel. F. G. light operated 15 Nov. to 15 Apr.	
	Dark Hole East Range Rear Daybeacon.	930 feet 176½° from front daybeacon.		.....		White skeleton tower, upper part inclosed.			F. G. light operated 15 Nov. to 15 Apr.	
1496	DARK HOLE WEST RANGE FRONT LIGHT. Ok. Fl. W.	On Rains Island ..... 46 15.9 84 07.0		.....	33	KRW on white skeleton tower..			Range marks western half of channel. 1959	
1497	DARK HOLE WEST RANGE REAR LIGHT. F. W.	1,000 feet, 177½° from front light		.....	51	KRW on white skeleton tower..			Visible on range line only. 1959	
	Harwood Point East Range Front Daybeacon.	On southernmost end of Sugar Island.		.....		White square pyramidal tower. . .			For upbound traffic. Range marks eastern half of channel. F. W. light operated 15 Nov. to 15 April.	
	Harwood Point East Range Rear Daybeacon.	1,202 feet 357° from front daybeacon.		.....		White daymark on white skeleton tower.			F. W. light operated 15 Nov. 15 to 15 April.	
1498	HARWOOD POINT WEST RANGE FRONT LIGHT. F. W.	On point ..... 46 19.3 84 07.2		.....	30	Red daymark on skeleton tower.			Range marks western half of channel. Visible on range line only. 1959	
1499	HARWOOD POINT WEST RANGE REAR LIGHT. F. W.	1,002 feet, 357° from front light.		.....	48	Red daymark on white skeleton tower.				
1500	— Lighted Buoy 27 ..... Ok. Fl. G.	In 27 feet		.....	4	Black .....			Ra ref. Can; winter marker.	
1501	Coyle Point Lighted Buoy 28 ..... Ok. Fl. R.	In 21 feet, off Coyle Point.	C.	.....		Red .....			Ra ref.	
	— Buoy 29 .....	In 27 feet		.....		Black can .....			White reflector.	
	— Buoy 30 .....	In 21 feet	C.	.....		Red sun .....			Ra ref. Red reflector.	
	— Buoy 31 .....	In 27 feet		.....		Black can .....			White reflector.	
	— Buoy 32 .....	In 21 feet	C.	.....		Red sun .....			Ra ref. Red reflector.	
1502	— Lighted Buoy 33 ..... Fl. W., 4 <sup>s</sup>	In 27 feet		.....	6	Black .....			Ra ref. Can; winter marker.	
1503	Green Point Lighted Buoy 34 ..... Fl. R.	In 27 feet	C.	.....		Red .....			Ra ref.	
	— Buoy 35 .....	In 27 feet		.....		Black can .....			White reflector.	
	— Buoy 36 .....	In 21 feet	C.	.....		Red sun .....			Ra ref. Red reflector.	
	— Buoy 37 .....	In 27 feet		.....		Black can .....			Ra ref. White reflector.	

## MUNUSCONG CHANNEL

## ST. MARYS RIVER, MICHIGAN AND CANADA

(1)	(2)	(3)	(4)	(5)	(6)	(7)
No.	Name Characteristic	Location Lat. N. Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure Daymark Remarks Year
150-4	— Buoy 38 .....	In 21 feet .....	C. ....	.....	Red nun.....	Ra ref. Red reflector.
	— Lighted Buoy 39 .....	In 27 feet, marks turn into Middle Neebish Channel.	.....	5 .....	Black .....	Ra ref. IB; winter marker
150-4, 25	HEN ISLAND WINTER LIGHT .....	On Hen Island .....	.....	4	16 .....	Operated during ice navigation season only, 15 Nov. to 15 Apr. 1976
	— Buoy 40 .....	In 21 feet .....	C. ....	.....	Red nun.....	Ra ref. Red reflector.
	— Buoy 42 .....	In 21 feet .....	C. ....	.....	Red nun.....	Ra ref. Red reflector.
	(For Lake George Channel, see No. 1569)					
	MIDDLE NEEBISH CHANNEL					
	Stribling Point North Range Front Daybeacon.	On shore..... C. 46 18.9 84 06.9	.....	.....	White daymark.....	.....
	Stribling Point North Range Rear Daybeacon.	On shore, 3,100 feet 112' from front daybeacon. C.	.....	.....	White daymark.....	.....
150-5	STRIBLING POINT SOUTH RANGE FRONT LIGHT. F. W.	On point ..... C. 46 18.8 84 06.9	.....	63	Red and white horizontally stripes rectangular daymark on skeleton tower.	.....
150-5	STRIBLING POINT SOUTH RANGE REAR LIGHT. F. W.	On hillside, 3,158 feet 111'42' 37" from front light. C.	.....	100	Red and white horizontally stripes rectangular daymark on skeleton tower.	.....
150-7	— LIGHT .....	In 18 feet, at junction with Lake Nicolet Channel. 46 20.0 84 11.1	.....	7	31 SW on white skeleton tower on concrete pier.	Also serves as Middle Neebish Channel range front light (F.R.) from 15 Nov. to 15 April.
	— North Range Rear Daybeacon ..	In 14 feet, 2,500 feet 292' from front light.	.....	.....	White daymark on black skeleton tower on concrete pier.	F.R. light operated from 15, Nov. to 15 April.
150-8	MIDDLE NEEBISH SOUTH RANGE FRONT LIGHT. Qk. Fl. W.	In 10 feet, at junction with Lake Nicolet Channel. 46 19.9 84 11.1	.....	.....	16 KRW on structure .....	.....
150-9	MIDDLE NEEBISH SOUTH RANGE REAR LIGHT. F. W.	In 5,700 feet, 292' from front light. On West Neebish Channel Upper Leading Light structure.	.....	.....	30 KRW on dolphin .....	Visible 3" each side of rangeline.
151-0	— Lighted Buoy 43 .....	In 27 feet, marks turn into Middle Neebish Channel.	.....	5 .....	Black .....	Ra ref. Can; winter marker.
	— Buoy 44 .....	In 21 feet .....	.....	.....	Red nun .....	Ra ref. Red reflector.
	— Buoy 45 .....	In 27 feet .....	.....	.....	Black can .....	White reflector.
	— Buoy 46 .....	In 21 feet .....	.....	.....	Red nun .....	Ra ref. Red reflector.
	— Buoy 48 .....	In 21 feet .....	.....	.....	Red nun .....	Ra ref. Red reflector.
151-1	— Lighted Buoy 49 .....	In 27 feet, abreast south end of dike.	.....	6 .....	Black .....	Can; winter marker.
	— LIGHT 50 .....	On east end of dike ..	.....	5	26 TR on red skeleton tower with small house on concrete pier.	1895-1970
	— Buoy 51 .....	In 27 feet .....	.....	.....	Black can .....	White reflector.
151-3	— LIGHT 54 .....	At center of dike .....	.....	5	26 TR on red column and small house on pile structure.	1895-1970
	— Buoy 55 .....	In 27 feet, on south edge of channel.	.....	.....	Black can .....	Ra ref. White reflector.
	— Buoy 57 .....	In 27 feet .....	.....	.....	Black can .....	White reflector.
151-4	— LIGHT 58 .....	At upper end of dike ..	.....	5	26 TR on red skeleton tower with small house on concrete pier.	1895-1931
151-5	— Lighted Buoy 59 .....	In 27 feet .....	.....	4 .....	Black .....	Ra ref. White reflector. Can; winter marker.

## LAKE NICOLET

## ST. MARYS RIVER, MICHIGAN

(1)	(2)	(3)	(4)	(5)	(6)	(7)		
No.	Name Characteristic	Location Lat. N. Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure Daymark	Remarks	Year
	Lower Nicolet East Range Front Daybeacon.	On north end of Neebish Island, marks east half of channel.				White daymark on white skeleton tower.	F. G. light operated from 15 Nov. to 15 April.	
	Lower Nicolet East Range Rear Daybeacon.	46 19.5 84 10.5 1,760 feet 150 $\frac{1}{4}$ ' from front daybeacon.				White daymark on white tower...	F. G. light operated from 15 Nov. to 15 Apr.	
1516	LOWER NICOLET WEST RANGE FRONT LIGHT. F. W.	On north end of Neebish Island.		53		KRW on cylindrical tower	Visible on rangeline only. 1959	
1517	LOWER NICOLET WEST RANGE REAR LIGHT. F. W.	46 19.5 84 10.6 3,750 feet, 150' from front light.		100		KRW on skeleton tower	Visible on rangeline only. 1953	
1518	—Lighted Buoy 62 Qk. Fl. R.	In 21 feet, at turn		4		Red	Ra ref. Nun; winter marker.	
1519	—Lighted Buoy 63 Fl. G., 4 <sup>s</sup>	In 27 feet		4		Black	Ra ref. Can; winter marker.	
	—Buoy 64	In 21 feet				Red nun	Ra ref. Red reflector.	
	—Buoy 65	In 27 feet				Black can	Ra ref. White reflector.	
	—Buoy 66	In 21 feet				Red nun	Ra ref. Red reflector.	
	—Buoy 67	In 27 feet				Black can	Ra ref. White reflector.	
1520	—Lighted Buoy 68 Fl. R., 4 <sup>s</sup>	In 21 feet		4		Red	Ra ref. Nun; winter marker.	
1521	—Lighted Buoy 69 Fl. W., 4 <sup>s</sup>	In 27 feet				Black	Ra ref. Can; winter marker.	
	—Buoy 70	In 21 feet				Red nun	Ra ref. Red reflector.	
	—Buoy 71	In 27 feet				Black can	White reflector.	
	—Buoy 72	In 21 feet				Red nun	Red reflector.	
	—Buoy 73	In 27 feet				Black can	White reflector.	
	—Buoy 74	In 21 feet				Red nun	Ra ref. Red reflector.	
	—Buoy 75	In 27 feet				Black can	White reflector.	
1522	—Lighted Buoy 76 Fl. R., 4 <sup>s</sup>	In 21 feet		4		Red	Ra ref. Nun; winter marker.	
1523	—Lighted Buoy 77 Fl. W., 4 <sup>s</sup>	In 27 feet				Black	Ra ref. Can; winter marker.	
	—Buoy 78	In 21 feet				Red nun	Ra ref. Red reflector.	
1524	—Lighted Buoy 79 Fl. G., 4 <sup>s</sup>	In 27 feet				Black	Can; winter marker.	
1525	—LIGHT 80 Fl. R., 2.5 <sup>s</sup>	In 12 feet, off point 46 23.6 84 13.8		4	32	TR on red column adjoining small house on concrete pier.	1895-1913	

(For continuation of Lake Nicolet see No. 1575)

WEST NEEBISH CHANNEL  
(DOWNBOUND)

1526	—UPPER RANGE FRONT LIGHT. F. W.	On extended axis of West Neebish Channel upper course.		30		KRW on dolphin	Visible 3' each side of rangeline. 1930-1977	
		46 20.5 84 13.8						
1527	—UPPER RANGE REAR LIGHT. F. W.	6,300 feet, 160' from front light.		80		KRW on white skeleton tower	1968	
1528	—Lighted Buoy 54 Fl. R., 4 <sup>s</sup>	In 32 feet, at entrance to cut.		4		Red	Ra ref. Nun; winter marker.	
1529	—Lighted Buoy 53 Fl. G., 4 <sup>s</sup>	In 25 feet, at entrance to cut.		4		Black	Ra ref. Can; winter marker.	
	—Buoy 52	In 25 feet				Red nun	Ra ref. Red reflector.	
	—Buoy 51	In 25 feet				Black can	Ra ref. White reflector.	
1530	—Lighted Buoy 50 Fl. R., 4 <sup>s</sup>	In 27 feet		4		Red	Ra ref. Nun; winter marker.	
1531	—LIGHT 49 Qk. Fl. G.	In 9 feet, at beginning of turn into West Neebish Channel.		32		White square daymark on black tower on small house.	Green reflector. 1908-1955	
1532	—LIGHT 48 Fl. R., 2.5 <sup>s</sup>	At junction of courses 4 and 5.		4	32	TR on red column and small house on pile structure.	Obscured from 229' to 330'. 1908-1953	

## WEST NEEBISH CHANNEL

## ST. MARYS RIVER, MICHIGAN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water	(6) Ht. above ground Structure	(7) Daymark Remarks Year
(DOWNBOUND)						
1532, 10	—RANGE FRONT LIGHT A F. G.	1,950 feet, 001.5° from rear light.		70	KBW on skeleton tower	1973
1532, 20	—RANGE REAR LIGHT A F. G.	46 16.8 84 12.9		140	KBW on tower	1973
1534	—Lighted Buoy 46 Fl. R., 4 <sup>s</sup>	In 27 feet		4	Red	Ra ref. Nun; winter marker.
1535	—LIGHT 45 Fl. G., 2.5 <sup>s</sup>	In 9 feet, at lower end of turn into channel.		6	32 SW on black tower on small	1908-1952
	—Buoy 44	In 25 feet			Red nun	Ra ref. Red reflector.
	—Buoy 43	In 25 feet			Black can	White reflector.
1536	—Lighted Buoy 42 Fl. R., 4 <sup>s</sup>	In 25 feet		4	Red	Ra ref. Nun; winter marker.
1537	—Lighted Buoy 41 Fl. W., 4 <sup>s</sup>	In 25 feet		6	Black	Ra ref. Can; winter marker.
1538	—Lighted Buoy 40 Fl. R., 4 <sup>s</sup>	In 25 feet		4	Red	Ra ref. Nun; winter marker
1539	—Lighted Buoy 39 Fl. G., 4 <sup>s</sup>	In 27 feet		4	Black	Ra ref. Can; winter marker.
1540	—Lighted Buoy 38 Fl. R., 4 <sup>s</sup>	In 25 feet		4	Red	Ra ref. Nun; winter marker
1541	—Lighted Buoy 37 Fl. W., 4 <sup>s</sup>	In 25 feet		6	Black	Ra ref. Can; winter marker.
1542	—Lighted Buoy 36 Qk. Fl. R.	In 25 feet		4	Red	Ra ref. Nun; winter marker.
	—Buoy 35	In 24 feet			Black can	White reflector.
	—Buoy 34	In 25 feet			Red nun	Ra ref. Red reflector.
1543	—LIGHT 33 Fl. G., 4 <sup>s</sup>			8	32 SW on black column adjoining small house.	1908-1913
1544	—LIGHT 32 Qk. Fl. R.	At lower end of turn		6	28 TR on red skeleton tower with small house on concrete pier.	1908-1952
1545	ROCK CUT LOWER LEADING LIGHT. F. W.	On Neebish Island abreast Sawmill Point.		46	White daymark on black skeleton tower.	1938
1546	Rock Cut Fog Signal	46 15.1 84 10.6 On lookout tower at Coast Guard Station 4.			White tower	HORN: 1 blast ev 15 <sup>s</sup> (2+bl). 1928
1547	—LIGHT 30 Fl. R., 4 <sup>s</sup>			5	32 TR on red column adjoining small house.	1908-1913
1548	—LIGHT 29 Fl. G., 4 <sup>s</sup>	46 16.9 84 12.5		8	32 SW on black column adjoining small house.	1908-1913
1549	—LIGHT 28 Fl. R., 4 <sup>s</sup>			5	24 TR on red column adjoining small house.	1947
1550	—LIGHT 27 Fl. G., 4 <sup>s</sup>			4	24 SW on black column adjoining small house.	1947
1551	—LIGHT 26 Fl. R., 4 <sup>s</sup>	On east side of cut		5	32 TR on red column adjoining house.	1908-1913
1552	—LIGHT 25 Fl. G., 4 <sup>s</sup>	In 15 feet		4	32 SW on black column adjoining small house.	1908-1913
1553	—Lighted Buoy 24 Qk. Fl. R.	In 25 feet		4	Red	Ra ref. Nun; winter marker.
1554	Sawmill Point Lighted Buoy 23 Qk. Fl. G.	In 25 feet		4	Black	Ra ref. Can; winter marker.
1555	Sawmill Point Lighted Buoy 22 Fl. R., 4 <sup>s</sup>	In 28 feet		4	Red	Ra ref. Nun; winter marker.
1556	MOON ISLAND LEADING LIGHT F. G.	On northern end of island.		48	Black and white horizontally banded rectangular daymark on black and white horizontally banded skeleton tower.	1948
	—Buoy 20	In 27 feet			Red nun	Ra ref. Red reflector.
	—Buoy 19	In 25 feet			Black can	White reflector.

## WEST NEEBISH CHANNEL

## ST. MARY'S RIVER, MICHIGAN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W		(4) Nominal Range	(5) Ht. above water	(6) Ht. above ground Structure	(7) Daymark Remarks Year
(DOWNBOUND)							
1557	—Lighted Buoy 18 Fl. R., 4 <sup>s</sup>	In 27 feet		4	....	Red	Ra ref. Nun; winter marker.
1558	—LIGHT 17 Fl. G., 4 <sup>s</sup>	In 19 feet		5	32	SW on black tower on small house.	Higher intensity beam Upstream channel. Similar light exhibited along downstream channel when Middle Neebish or Munuscong Channels are closed to upbound traffic. 1908-1951 1903-1918
1559	—LIGHT 16 Qk. Fl. R.	In 12 feet, at beginning of turn.		4	32	TR on red column adjoining small house.	
1560	—Lighted Buoy 15 Qk. Fl. G.	In 27 feet, at angle of cut.		4	....	Black	Ra ref. Can; winter marker.
1561	—LIGHT 14 Qk. Fl. R.	In 17 feet, at lower end of turn.		4	32	TR on red skeleton tower on concrete base.	1908-1920
1562	Moon Island Lighted Buoy 13 Fl. W., 2.5 <sup>s</sup>	In 27 feet		6	....	Black	Ra ref. Can; winter marker.
1562.50	—Lighted Buoy 12 Fl. R., 4 <sup>s</sup>	In 25 feet		4	....	Red	Ra ref.
1563	—Lighted Buoy 11 Fl. G., 4 <sup>s</sup>	In 25 feet		4	....	Black	Ra ref. Can; winter marker.
1564.50	—Lighted Buoy 10 Fl. R., 2.5 <sup>s</sup>	In 27 feet		4	....	Red	Ra ref. Nun, winter marker.
1565	—LIGHT 9 Fl. G. 2.5 <sup>s</sup>	In 6 feet		4	32	SW on black column adjoining small house.	1908-1913
	—Buoy 8	In 25 feet		....	....	Red nun	Ra ref. Red reflector.
	—Buoy 7	In 25 feet		....	....	Black can	White reflector.
1566	—Lighted Buoy 6 Fl. R., 4 <sup>s</sup>	In 25 feet		4	....	Red	Nun; winter marker.
1567	—Lighted Buoy 5 Fl. W., 4 <sup>s</sup>	In 25 feet		6	....	Black	Can; winter marker.
	—Buoy 4	In 27 feet		....	....	Red nun	Ra ref. Red reflector.
	—Buoy 3	In 27 feet		....	....	Black can	White reflector.
1567.50	—Lighted Buoy 2 Fl. R., 2.5 <sup>s</sup>	In 27 feet		4	....	Red	Nun; winter marker.
1568	—Lighted Buoy 1 Fl. G., 4 <sup>s</sup>	In 28 feet		4	....	Black	Ra ref. Can; winter marker.

(For Munuscong Channel, see No. 1479)

## LAKE GEORGE

## EAST NEEBISH ISLAND CHANNEL

	—Buoy 1	In 14 feet		....	....	Black can	White reflector.
	—Buoy 2	In 16 feet		....	....	Red nun	Red reflector.
1569	—Lighted Buoy 3 Fl. W., 4 <sup>s</sup>	In 19 feet		6	....	Black	
	—Buoy 4	In 16 feet		C.	....	Red nun	Red reflector.
	—Buoy 5	In 16 feet		....	....	Black can	White reflector.
	—Buoy 6	In 17 feet		....	....	Red nun	Red reflector.
	—Buoy 7	In 19 feet		....	....	Black can	White reflector.
	—Buoy 8	In 17 feet		....	....	Red nun	Red reflector.
	—Buoy 9	In 14 feet		....	....	Black can	White reflector.
	—Buoy 11	In 19 feet		....	....	Black can	White reflector.
1570	—Lighted Buoy 12 Fl. R., 4 <sup>s</sup>	In 15 feet		4	....	Red	
	—Buoy 13	In 14 feet		....	....	Black can	White reflector.
	—Buoy 14	In 15 feet		....	....	Red nun	Red reflector.
1571	Birch Point Lighted Buoy 16 Fl. R.	C. 46 22.3 84 08.2		....	....	Red	
	Birch Point Buoy 16A	C.		....	....	Red spar	

## LAKE GEORGE

## ST. MARYS RIVER, MICHIGAN

(1)	(2)	(3)		(4)	(5)	(6)	(7)
No.	Name	Location	Nominal	Ht.	Structure	Daymark	Remarks
No.	Characteristic	Lat. N.	Long. W.	Range	above water	Ht. above ground	Year
LAKE GEORGE CHANNEL							
1572	— Buoy 1.....	In 17 feet			Black can		White reflector.
	Pumpkin Point Lighted Buoy 2 ...		C.		Red		
	Fl. R.	46 24.0	84 09.0				
	— Buoy 3.....	In 16 feet			Black can		White reflector.
	— Buoy 4.....	In 18 feet	C.		Red nun		Red reflector.
	— Buoy 5.....	In 17 feet			Black can		White reflector.
	— Buoy 6.....	In 18 feet			Red nun		Red reflector.
	— Buoy 7.....	In 16 feet			Black can		White reflector.
	— Buoy 8.....	In 17 feet			Red nun		Red reflector.
	— Buoy 9.....	In 18 feet			Black can		White reflector.
	— Buoy 10.....	In 17 feet			Red nun		Red reflector.
	— Buoy 11.....	In 16 feet			Black can		White reflector.
	— Buoy 12.....	In 16 feet			Red nun		Red reflector.
	— Buoy 13.....	In 17 feet			Black can		White reflector.
	— Buoy 14.....	In 19 feet			Red nun		Red reflector.
	— Buoy 15.....	In 18 feet			Black can		White reflector.
	— Buoy 16.....	In 16 feet			Red nun		Red reflector.
	— Buoy 17.....	In 18 feet			Black can		White reflector.
	— Buoy 18.....	In 19 feet			Red nun		Red reflector.
1573	— Lighted Buoy 19	In 18 feet		4	Black		
	Fl. G., 4 <sup>s</sup>						
	— Buoy 20.....	In 17 feet			Red nun		Red reflector.
	— Buoy 21.....	In 18 feet			Black can		White reflector.
	— Buoy 22.....	In 18 feet			Red nun		Red reflector.
SUGAR ISLAND NORTH CHANNEL							
1574	— Lighted Buoy 1	In 30 feet		6	Black		
	Fl. W., 4 <sup>s</sup>						
	— Buoy 2.....	In 11 feet	C.		Red nun		Red reflector.
	— Buoy 3.....	In 17 feet	C.		Black can		White reflector.
	— Buoy 4.....	In 17 feet	C.		Red nun		Red reflector.
	— Buoy 5.....	In 16 feet			Black can		White reflector.
	— Buoy 6.....	In 18 feet			Red nun		Red reflector.
	— Buoy 7.....	In 12 feet			Black can		White reflector.
	— Buoy 8.....	In 13 feet			Red nun		Red reflector.
	— Buoy 9.....	In 17 feet			Black can		White reflector.
	— Buoy 11.....	In 17 feet	C.		Black can		White reflector.
	— Buoy 13.....	In 18 feet			Black can		White reflector.
	— Buoy 15.....	In 17 feet			Black can		White reflector.
	— Buoy 16.....	In 17 feet	C.		Red nun		Red reflector.
	— Buoy 18.....	In 17 feet	C.		Red nun		Red reflector.
	— Buoy 19.....	In 17 feet	C.		Black can		White reflector.
	— Buoy 20.....	In 17 feet	C.		Red nun		Red reflector.
	— Buoy 21.....	In 17 feet	C.		Black can		White reflector.
	— Buoy 23.....	In 17 feet	C.		Black can		White reflector.
	— Buoy 25.....	In 15 feet	C.		Black can		White reflector.
	— Buoy 27.....	In 15 feet	C.		Black can		White reflector.
	— Buoy 28.....	In 15 feet	C.		Red nun		Red reflector.
	— Buoy 30.....	In 19 feet			Red nun		Red reflector.
	— Buoy 31.....	In 19 feet			Black can		White reflector.
LAKE NICOLET							
1575	UPPER NICOLET RANGE FRONT LIGHT.				40	KRW on skeleton tower.	For upbound traffic.
	F. W.	46 27.3	84 15.8				Higher intensity beam on range line with reduced intensity around remainder of horizon. 1895-1970
1576	UPPER NICOLET RANGE REAR LIGHT.	3, 105 feet 339 $\frac{1}{2}$ '			82	KRW on skeleton tower	1895-1970
	F. W.	from front light.					

(1)	(2)	(3)		(4)	(5)	(6)	(7)		
No.	Name Characteristic	Lat. N.	Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure Daymark	Remarks	Year
1577	— Lighted Buoy 82 Fl. R., 4 <sup>s</sup>				4	Red		Nun; winter marker.	
1578	— Lighted Buoy 83 Fl. G., 4 <sup>s</sup>				4	Black		Can; winter marker.	
	— Buoy 84					Red sun		Ra ref. Red reflector.	
	— Buoy 85					Black can		White reflector.	
	— Anchorage Buoy A					White can		White reflector.	
	— Anchorage Buoy B					White can		White reflector.	
	— Buoy 86					Red sun		Ra ref. Red reflector.	
1578.20	Lake Nicolet Lighted Buoy 86A Fl. R., 4 <sup>s</sup>				4	Red		Ra ref.	
1579	Six Mile Point Lighted Buoy 87 Fl. G., 4 <sup>s</sup>					Black		Can; winter marker.	
1580	FRECHETTE POINT RANGE FRONT LIGHT. Gk. Fl. G.					30	KRW on black skeleton tower	Visible on rangeline only.	
		46 27.3	84 16.7						1895-1952
1580.50	FRECHETTE POINT LIGHT 91 F. G.				5		SG on same structure as Frechette Point Range Front	Obscured from 321° to 345°.	1976
1581	FRECHETTE POINT RANGE REAR LIGHT. F. G.					90	KRW on skeleton tower	Visible on rangeline only.	1895-1976
		4,483 feet	323.20'						
1582	— Lighted Buoy 88 Fl. R., 4 <sup>s</sup>				4	Red		Nun; winter marker.	
1583	— Lighted Buoy 89 Fl. G., 4 <sup>s</sup>				4	Black		Can; winter marker.	
	— Buoy 90					Red sun		Ra ref. Red reflector.	
1584	SUGAR ISLAND LEADING LIGHT. E. Int. W., 6 <sup>s</sup>				14	40	NR on red skeleton tower	Visible on rangeline only.	1957
		46 24.7	84 14.0						
LITTLE RAPIDS CUT									
1585	SIX-MILE POINT RANGE FRONT LIGHT. F. W.					18	KRW on dolphin	Visible on rangeline only.	1895-1921
		46 26.4	84 15.9						
1586	SIX-MILE POINT RANGE REAR LIGHT. E. Int. W., 6 <sup>s</sup> Fl. G., 2.5 <sup>s</sup>					45	KRW on dolphin	Passing light visible around horizon. Operates only 15 Nov. to 15 Apr. 1895-1921	
		2,824 feet	153' from front light.						
1587	— Lighted Buoy 92 Fl. R., 4 <sup>s</sup>				4	Red		Ra ref. Nun; winter marke	
	— Junction Buoy						Black and red horizontal banded; can.	Green reflector.	
		46 27.6	84 17.0						
LITTLE RAPIDS CHANNEL									
	— Buoy 2						Red sun	Red reflector.	
	— Buoy 4						Red sun	Red reflector.	
	— Buoy 5						Black can	White reflector.	
	— Buoy 6						Red sun	Red reflector.	
	— Buoy 8						Red sun	Red reflector.	
LITTLE RAPIDS CUT									
1588	— LIGHT 95 Fl. G., 2.5 <sup>s</sup>				4	18	SW on black mast with small house on concrete pier.		1894-1954
1589	— LIGHT 96 Fl. R., 2.5 <sup>s</sup>				4	20	TR on red mast with small house on concrete pier.		1895-1954
1590	— LIGHT 98 F. R.				9	18	TR on red mast with small house on concrete pier.		1895-1954
1591	— LIGHT 99 F. G.				9	32	SG on skeleton tower	Visible 120° to 335°.	1895-1974
						30			

## LITTLE RAPIDS CUT

## ST. MARY'S RIVER, MICHIGAN AND CANADA

(1)	(2)	(3)		(4)	(5)	(6)	(7)		
No.	Name	Location	Nominal	Ht.	Ht. above	Structure	Daymark	Remarks	Year
No.	Characteristic	Lat. N.	Long. W.	Range	water	ground			
1592	— Lighted Buoy 101 Fl. G., 4 <sup>s</sup>	In 30 feet, at turn in channel.		4	....	Black			
1593	— Lighted Buoy 102 Fl. R., 4 <sup>s</sup>	In 33 feet		4	....	Red		Nun; winter marker.	
1594	— Lighted Buoy 104 Qk. Fl. R., 4 <sup>s</sup>	In 25 feet, marks outside of turn.		4	....	Red		Nun; winter marker.	
1595	— Lighted Buoy 105 Qk. Fl. G.	In 30 feet, marks inside of turn.		4	....	Black		Ra ref. Can; winter marker	
<b>BAYFIELD CHANNEL</b> (Chart 14884)									
1596	BAYFIELD ROCK RANGE FRONT LIGHT. F. W.	On northwest end of Sugar Island. 46 29.3 84 17.0				18	KRW on white skeleton tower 25		1892-1957
1597	BAYFIELD ROCK RANGE REAR LIGHT. F. W.	945 feet 109° from front light.				38	KRW on white skeleton tower 32		1892-1957
1598	— Buoy 106 — Lighted Buoy 107 Fl. G., 4 <sup>s</sup>	In 25 feet ..... C. In 33 feet				4	Red nun Black	Ra ref. Red reflector. Can; winter marker.	
1598.50	— Lighted Buoy 108 Fl. R., 2.5 <sup>s</sup>	In 29 feet		4	....	Red		Ra ref. Nun; winter marker.	
1599	— Buoy 109 BAYFIELD DIKE LIGHT Fl. R., 4 <sup>s</sup>	In 25 feet ..... C. On dike				25	Black can Mast, red and white vertically striped triangular daymark.	Ra ref. White reflector. RACON $\bullet\bullet\bullet(U)$	
1600	— Lighted Buoy 110 Fl. R.	..... C. 46 30.2 84 20.0				25	Red	Ra ref.	
<b>AMERICAN CANAL</b>									
1601	SOUTHEAST PIERHEAD LIGHT .. F. R.	Marks east end of pier				9	Pipe	Maintained by Corps of Engineers, U. S. Army. 1948	
1602	EAST CENTER PIERHEAD LIGHT. F. R.	On pierhead, at east entrance to canals.				20	Concrete column	Marks direction of pier. Maintained by Corps of Engineers, U. S. Army. 1913	
1603	NORTHEAST PIERHEAD LIGHT. F. R.	On southeast corner of pierhead, east entrance to north canal.				21	Concrete column	Maintained by Corps of Engineers, U. S. Army. 1913	
1604	WEST CENTER PIERHEAD LIGHT. F. R.	On pierhead, west entrance to canals.				20	Concrete column	Maintained by Corps of Engineers, U. S. Army. 1899-1923	
1605	SOUTHWEST PIER LIGHT Qk. Fl. W.	On pier, 1,000 feet eastward of pierhead.				6		Maintained by Corps of Engineers, U. S. Army. 1946	
1606	SOUTHWEST PIERHEAD LIGHT .. F. R.	On pierheads, at west entrance to canal.				20	Concrete column	Maintained by Corps of Engineers, U. S. Army. 1899-1923	
1607	NORTHWEST PIERHEAD LIGHT . F. R.	On pierheads, at west entrance to canal.				20	Concrete column	SIREN: Answers signals. Maintained by Corps of Engineers, U. S. Army. 1899-1933	
<b>VIDAL SHOALS CHANNEL</b>									
1608	— RANGE FRONT LIGHT Occ. R., 4 <sup>s</sup> (3 <sup>h</sup> )	On north pier, west of International Bridge 46 30.3 84 21.8				62	White daymark on black skeleton tower on concrete pier. 55	Range lighted throughout 24 hours. 1899-1915	
1609	— RANGE REAR LIGHT F. R.	On dike, 2,700 feet 076° from front light.				98	White daymark on black skeleton tower on concrete pier. 92	1899-1950	

## VIDAL SHOALS CHANNEL

## ST. MARYS RIVER, MICHIGAN AND CANADA

(1)	(2)	(3)		(4)	(5)	(6)	(7)	
No.	Name	Lat. N.	Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure	
	Characteristic						Daymark	
	— Range Daybeacon		855 feet 255' from Vidal Shoals Channel Range Front Light.				White, oval, horizontally slatted daymark.	
1610	— Lighted Buoy 2 Fl. R., 4 <sup>1</sup>		In 26 feet		4		Red	Ra ref. Nun; winter marker.
1611	— Buoy 3 — Lighted Buoy 5 Fl. W., 4 <sup>1</sup>		In 26 feet, on south side of channel.		6		Black can	White reflector. Ra ref. Can; winter marker
	— Buoy 7		In 20 feet, on north side of shoal.				Black can	White reflector.
1612	Big Point Lighted Buoy 9 Fl. W., 4 <sup>1</sup>		In 38 feet		6		Black	Ra ref. Can; winter marker.
1613	SAULT STE. MARIE WHARF LIGHT. F. R.		On west end of wharf. 46 30.2 84 19.7			23	Mast	
	(For Pointe Aux Pins Range, see No. 1624)							
	CANADIAN CHANNEL <sup>1</sup>							
1614	Lower Entrance Lighted Buoy 1 Fl. G.		At lower entrance to Canadian Canal. C. 46 30.5 84 20.5				Black	
1615	CANADIAN CANAL LOWER ENTRANCE RANGE FRONT LIGHT. F. R.		On shore of bay north of entrance. C. 46 30.9 84 20.8			37	Red and white rectangular striped daymark on skeleton tower.	Range lighted throughout 24 hours.
1616	CANADIAN CANAL LOWER ENTRANCE RANGE REAR LIGHT. F. R.		697 feet 321°30' from front light. C.			59	Red and white rectangular striped daymark on skeleton tower.	Radio station east of town call VBB.
	— Buoy 3		..... C. 46 30.6 84 20.5				Black spar	
	— Buoy 4		..... C.				Red nun	
	— Buoy 6		..... C.				Red nun	
1617	CANADIAN CANAL UPPER ENTRANCE RANGE FRONT LIGHT. F. R.		On pier ..... C. 46 30.9 84 22.3			37	White rectangular daymark with orange vertical stripe on skeleton tower.	Range lighted throughout 24 hours.
1618	CANADIAN CANAL UPPER ENTRANCE RANGE REAR LIGHT. F. R.		800 feet 051° from front light. C.			63	Orange conical daymark steel skeleton tower, painted orange on seaward face.	
	— Buoy 8		..... C. 46 30.8 84 22.1				Red spar	
	— Buoy 10		..... C.				Red spar	
	— Buoy 12		..... C.				Red spar	
1619	Upper Turning Lighted Buoy 5 Qk. Fl. G.		On south edge of turn, 1, 200 feet west of west end of south entrance pier of Canadian Canal. C.				Black	Ra ref.
1620	Vidal Shoals Northeast Lighted Buoy 7. Fl. G.		On south edge of Canadian Channel, at lower end of shoals. C.				Black	Ra ref.
	— Buoy 9		..... C.				Black can	
1621	Vidal Shoals North Lighted Buoy 14. Fl. R.		..... C. 46 30.4 84 23.2				Red	Ra ref.

<sup>1</sup> The Canadian Canal and its cribwork approaches are illustrated by two rows of arc lights, one on each side of the canal; the most easterly and the most westerly in each row are green lights; all of the other lights are white.

## CANADIAN CHANNEL

## ST. MARYS RIVER, CANADA AND MICHIGAN

(1)	(2)	(3)	(4)	(5)	(6)	(7)	
No.	Name	Location	Nominal Range	Ht. above water	Ht. above ground	Structure	
No.	Characteristic	Lat. N. Long. W.			Daymark	Remarks	
	— Buoy 16 .....		C.			Red nun .....	
	— Buoy 18 .....		C.			Red nun .....	
	— Buoy 20 .....		C.			Red nun .....	
	— Buoy 11 .....		C.			Black can .....	
	— Buoy 22 .....		C.			Red nun .....	
1622	Vidal Shoals Southwest Lighted Buoy "B" I. Qk. Fl. G.	On west end of shoal, south edge of Canadian Channel, At junction with U. S. Channel.	C.			Black and red horizontal bands.	Ra ref.
1623	Vidal Shoals West Lighted Buoy 24, Fl. R.	On west end of shoals, north edge of Canadian Channel.	C.			Red .....	Ra ref.
	— Buoy 26 .....	46 30.0 84 24.5	C.			Red nun .....	
<b>POINTE AUX PINS CHANNEL</b>							
1624	POINTE AUX PINS RANGE FRONT LIGHT. F. W.	On northern extremity of point.	C.		27	White square tower 26	Visible on rangeline only.
1625	POINTE AUX PINS RANGE REAR LIGHT. F. W.	On point, 920 feet 232' 20' from front light.	C.		52	White square tower .....	Visible on rangeline only.
1626	— Lighted Buoy 10 .....	In 28 feet .....		5		Red .....	Ra ref. Nun; winter marker.
	— Buoy 14 .....	In 28 feet .....				Red nun .....	Red reflector.
1627	Pointe Aux Pins Bay Lighted Buoy 16, Fl. R.	In 25 feet .....	C.			Red .....	Ra ref.
1628	Brush Point Lighted Bell Buoy 17, Qk. Fl. G.	In 25 feet, marks turn in channel.		4		Black .....	Ra ref. Can; winter marker.
	Brush Point Daybeacon .....	On rock pile northwest of Brush Point. 46 28. 2 84 27. 4				NR .....	Qk. Fl. W. shows only from 15 Nov. to 15 Apr.
<b>POINTE AUX PINS TO ROUND ISLAND</b>							
1628.50	Pointe Aux Pins Bay Lighted Buoy 18, Fl. R.	46 28. 4 84 27. 9	C.			Red .....	Ra ref.
1629	Pointe aux Pins Buoy 19 .....	In 27 feet .....				Black can .....	Ra ref. White reflector.
	Pointe aux Pins Main Light .....	On outer end of low sand point.	C.		27	Red and white horizontally banded circular tower.	
	— Buoy 21 .....	46 27. 9 84 28. 4					
1630	Brush Point Lighted Buoy 21 .....	In 28 feet .....		4		Black .....	Ra ref. Can; winter marker.
1631	Brush Point Lighted Buoy 23 .....	In 25 feet, marks turn.	C.			Black .....	Ra ref.
1632	Pointe Louise Lighted Buoy 22, ... Fl. R.	In 34 feet .....	C.			Red .....	Ra ref.
1633	BRUSH POINT RANGE FRONT LIGHT. F. G.	On low Sandy Island, 46 27. 7 84 28. 2			33	White square pyramidal tower on concrete pier.	Range lighted throughout 24 hours. 1887-1933
1634	BRUSH POINT RANGE REAR LIGHT. F. G.	2,000 feet 074' from from light.			66	White rectangular daymark on tower.	1887-1933
	Cedar Point Buoy 26 .....	In 36 feet .....	C.			Red nun .....	Red reflector.
	Cedar Point Buoy 27 .....	In 32 feet .....	C.			Black can .....	

<sup>1</sup> The Canadian Canal and its cribwork approaches are illuminated by two rows of arc lights, one on each side of the canal; the most easterly and the most westerly in each row are green lights; all of the other lights are white.

POINTE AUX PINS TO  
ROUND ISLAND

ST. MARYS RIVER, MICHIGAN AND CANADA

(1)	(2)	(3)		(4)	(5)	(6)	(7)		
No.	Name Characteristic	Lat. N.	Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure Daymark	Remarks	Year
1635	<i>Cedar Point Lighted Buoy 29</i> ..... Fl. W., 4 <sup>s</sup>				6		Black	Ra ref. Can; winter marker.	
1636	<i>Cedar Point Lighted Buoy 28</i> ..... Fl. R.						Red	Ra ref.	
	<i>Cedar Point Buoy 30</i> .....			In 31 feet, north of Cedar Point. C.			Red sun.....	Ra ref. Red reflector.	
	<i>Cedar Point Buoy 31</i> .....			In 27 feet .....			Black can .....	Ra ref. White reflector. Can; winter marker.	
1637	<i>Round Island Lighted Buoy 33</i> ..... Fl. G., 4 <sup>s</sup>			In 27 feet .....	4		Black	Ra ref. Can; winter marker.	
1638	<i>Round Island Lighted Bell Buoy 32</i> ..... Qk. Fl. R.			In 30 feet, northwest of island.	4		Red	Ra ref. L1B; winter marker.	
<b>ROUND ISLAND TO WHITEFISH BAY</b>									
1639	BIRCH POINT RANGE FRONT LIGHT. F. W.			On mainland .....		53	White triangular daymark on black skeleton tower.	Range lighted throughout 24 hours. 1901	
1640	BIRCH POINT RANGE REAR LIGHT. F. W.			3,000 feet 138°30' from front light.		101	White triangular daymark on black skeleton tower.	1901-1963	
	<i>Round Island Buoy 35</i> .....			In 27 feet, at intersec- tion of channel bank and Birch Point Range axis.			Black can .....	White reflector.	
	<i>Round Island Buoy 37</i> .....			In 27 feet .....			Black can .....	White reflector.	
	<i>Round Island Buoy 36</i> .....			In 27 feet .....			Red sun.....	Red reflector.	
1641	<i>Round Island Traffic Lighted Buoy.</i> Mo. (A) W.			In 27 feet .....	6		Black and white vertical stripes.	Vessels are required to leave buoy on port side in passing. Ra ref.	
1642	<i>Round Island Lighted Buoy 38</i> ... Fl. R., 4 <sup>s</sup>			In 40 feet, marks turn in Birch Point Range.	4		Red	Ra ref. Nun; winter marker.	
1643	<i>Point Iroquois Shoal Lighted Bell Buoy 39.</i> Fl. W., 2.5 <sup>s</sup>			In 50 feet .....	6		Black	Can; winter marker.	
	<i>Point Iroquois Buoy 40</i> .....			In 40 feet ..... C.			Red sun .....	Ra ref. Red reflector. Nun; winter marker.	
	<i>Point Iroquois Anchorage Buoy A</i> ..			In 36 feet .....			White can .....	Ra ref. White reflector.	
	<i>Point Iroquois Shoal Buoy 41</i> .....			In 42 feet, east edge of Point Iroquois Shoal.			Black can .....	White reflector.	
1644	<i>Point Iroquois Lighted Buoy 44</i> ... Fl. R.			In 40 feet ..... C.			Red .....	Ra ref.	
	<i>Point Iroquois Shoal Buoy 43</i> .....			In 35 feet, marks 35-foot contour.			Black can .....	White reflector.	
1645	<i>Point Iroquois Shoal Lighted Bell Buoy 45.</i> Fl. W., 4 <sup>s</sup>			In 32 feet .....	6		Black	Ra ref. Can; winter marker.	
	<i>Point Iroquois Shoal Buoy 47</i> .....			In 30 feet, marks north edge of shoal.			Black can.....	Ra ref. White reflector.	
1646	GROS CAP REEF LIGHT .....			On crib .....	12	45	Two tier white concrete on crib.	RBN:286 kHz (o m). FOG HORN: 3 blasts ev 60°(2°bl-3°si-2°bl- 3°si-2°bl-48°si). Winter light Fl. R. RACON = * * (D)	

## SOUTH SIDE

## LAKE SUPERIOR, CANADA AND MICHIGAN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. Ht. above water ground	(6) Structure Daymark	(7) Remarks Year
(Chart 14962)						
1660	Ile Parisienne Light Fl. W., 10 <sup>s</sup>	On southwest end of island. C. 46 38.7 84 43.4		12 54	Gray hexagonal concrete tower... White dwelling 70 feet 133' from tower.	DIAPHONE: 2 blasts ev 60 <sup>s</sup> (3 <sup>s</sup> bl-3 <sup>s</sup> si-3 <sup>s</sup> bl- 51 <sup>s</sup> si). Winter light Fl. W. 1960 1960
1661	WHITEFISH POINT HARBOR NORTH BREAKWATER LIGHT. Fl. R., 4 <sup>s</sup>	On end of breakwater.		5 25	TR on white column	1960
1662	WHITEFISH POINT HARBOR SOUTH BREAKWATER LIGHT. Fl. G., 4 <sup>s</sup>	On end of breakwater.		4 25	SB on white column	1960
1663	WHITEFISH POINT HARBOR INNER BREAKWATER LIGHT. Fl. W., 4 <sup>s</sup>	On end of breakwater.		6 25	TR on white pile	1968
1664	Whitefish Point Light Cp. Fl. W., 20 <sup>s</sup> 0.2 <sup>s</sup> fl., 4.8 <sup>s</sup> ec. 0.2 <sup>s</sup> fl., 14.8 <sup>s</sup> ec.	On point 46 46.3 84 57.4		26 76 80	White Cylindrical tower	RBN:292 kHz (mmmm) I. . Antenna at light tower. HORN: 1 blast ev 30 <sup>s</sup> (3 <sup>s</sup> bl). Operates con- tinuously. Emergency light Fl. W. 6 <sup>s</sup> . 1849-1861
1665	Whitefish Point Lighted Bell Buoy 1. Fl. W., 4 <sup>s</sup>	In 33 feet, off point		6 9	Black	Ra ref. Can; winter marke 1849-1861
1666	Crisp Point Light Fl. W., 6 <sup>s</sup>	On mainland 46 45.2 85 15.3		12 58	White conical tower 58	1904
1667	LITTLE LAKE HARBOR OF REFUGE WEST BREAKWATER LIGHT. Fl. W., 4 <sup>s</sup>	On end of breakwater. 46 43.1 85 21.8		6 ...	TR on red column	1963
1668	LITTLE LAKE HARBOR OF REFUGE EAST BREAKWATER LIGHT. Fl. G., 4 <sup>s</sup>	On end of breakwater. 46 43.0 85 21.8		5 ....	SB on black column	1963
1669	GRAND MARAIS HARBOR OF REFUGE OUTER LIGHT. Fl. W., 2.5 <sup>s</sup>	On outer end of pier. 46 41.3 85 58.5		15 40	White square pyramidal skeleton tower, upper part inclosed.	HORN: 1 blast ev 15 <sup>s</sup> (2 <sup>s</sup> bl). 1895-1961
1669.50	Grand Marais Harbor of Refuge Lighted Buoy 1. Fl. G., 2.5 <sup>s</sup>	In 24 feet		4 ....	Black	Ra ref.
1670	GRAND MARAIS HARBOR OF REFUGE INNER LIGHT. F. W.	2,610 feet 176°50' from outer light.		15 54	White square pyr amidal skeleton tower, upper part inclosed. 47	1898
(Chart 14963)						
1671	Au Sable Light Fl. W., 6 <sup>s</sup>	On point 46 40.3 86 08.4		12 107	White conical tower, red dwell- ing attached. 87	1873
1672	Grand Island Light Fl. W., 6 <sup>s</sup>	On northwest point 46 33.7 86 40.9		9 190	White square daymark on white column. 25	White reflector. 1856-1961
(Chart 14969)						
1673	MUNISING RANGE FRONT LIGHT. F. R.	In town of Munising. 46 24.9 86 39.7		79	White conical tower 58	1909
1674	MUNISING RANGE REAR LIGHT F. R.	1,150 feet 217' from front light.		107	White conical tower 33	1909
1675	Trout Point Lighted Bell Buoy 2 Fl. R., 4 <sup>s</sup>	In 45 feet 46 29.1 86 35.8		4 ....	Red	Ra ref. Nun; winter marker
1676	Sand Point Lighted Bell Buoy 3 Fl. W., 4 <sup>s</sup>	In 27 feet		6	Black	Ra ref. Can; winter marker

## SOUTH SIDE

## LAKE SUPERIOR, MICHIGAN

(1)	(2)	(3)	(4)	(5)	(6)	(7)	
No.	Name Characteristic	Location Lat. N. Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure Daymark	Remarks Year
	Grand Island Harbor Buoy 4.....	In 20 feet, on extreme end of shoal off old lighthouse.	.....	.....	.....	Red sun.....	Red reflector.
1677	BAY FURNACE DIRECTIONAL LIGHT. F. W. R. & G. sectors.	On west side of entrance to harbor. 46 26.3 86 41.5	.....	33	26	White daymark on mast, on black house.	Shows red from 163° to 166° green from 168° to 171°, and white from 166° to 168°. 1869-1969
1678	Grand Island Harbor West Entrance Lighted Bell Buoy. Mo. (A) W.	In 54 feet, off south end of Grand Island.	.....	6	.....	Black and white vertical stripes.	Ra ref.
	Williams Landing Buoy 1.....	In 22 feet, off southwest end of Grand Island.	.....	.....	.....	Black can.....	Green reflector.
	(Chart 14970)						
	Marquette Bay South Shoal Buoy A.	In 26 feet.....	.....	.....	.....	Black and red horizontally banded can.	Ra ref.
	Marquette Rocks Buoy 1.....	In 24 feet, marks northeast end of shoal.	.....	.....	.....	Black can.....	Green reflector.
1679	Marquette Light..... Fl. W., 10 <sup>s</sup>	On north point..... 46 32.8 87 22.6	.....	29	77	Red square tower on dwelling.. 40	RBN: 292 kHz (••••)III - Antenna 140 feet 126' from light tower.
1681	INNER LIGHT.	water, 1,500 feet	.....	9	38	TR on red skeleton tower.....	1927-1948
1680	MARQUETTE BREAKWATER MARQUETTE BREAKWATER OUTER LIGHT. Occ. W. R. sector., 4 <sup>s</sup> (3 <sup>s</sup> lt)	At elbow of break- water.	.....	16	40	White square pyramidal skeleton tower, upper part inclosed.	Red from 181° to 198°. HORN: 1 blast ev 15 <sup>s</sup> (2 ••). 1875-1908 1855-1867
	Marquette Power and Light Range F. R.	On shore..... from end.	.....	.....	.....	Orange and white diamond	Private aid maintained
	Front Daybeacon.	46 39.1 87 23.7	.....	.....	.....	daymark.	from Apr. 1 to Dec. 1.
	Marquette Power and Light Range Rear Daybeacon.	.....	.....	.....	.....	Orange and white diamond daymark.	Private aid maintained from Apr. 1 to Dec. 1.
	Marquette Harbor Buoy 1.....	In 25 feet, marks 18-foot shoal.	.....	.....	.....	Black can.....	Ra ref. Green reflector.
	Marquette Harbor Buoy 3.....	In 27 feet, marks submerged crib at outer end of Merchandise Wharf.	.....	.....	.....	Black can.....	Green reflector.
	Marquette Harbor Buoy 5.....	In 25 feet.....	.....	.....	.....	Black can.....	Green reflector.
	Marquette Dock Company Buoy 1...	In 20 feet.....	.....	.....	.....	Black can.....	White pennant. Private aid.
1684	PRESQUE ISLE HARBOR BREAKWATER LIGHT. Fl. R., 4 <sup>s</sup>	On breakwater, 60 feet from outer end. 46 34.4 87 22.4	.....	10	56	White cylindrical tower on white octagonal building. 40	MKR RBN: 322 kHz; Antenna at light tower. HORN: 2 blasts ev 20 <sup>s</sup> (2 ••1-2 ••1-2 ••1-14 ••1). 1941
1685	Presque Isle Harbor Lighted Buoy 1. Fl. W., 4 <sup>s</sup>	In 28 feet, on north point of shoal off Pioneer Iron Works.	.....	6	.....	Black.....	Ra ref.
1685.50	PRESQUE ISLE MARINA LIGHT .. Fl. R., 4 <sup>s</sup>	On end of breakwater.	.....	12	.....	On red steel pile.....	Private aid maintained from 1 May to 31 Oct.
	Presque Isle Harbor Buoy 2.....	In 26 feet, marks edge of shoal on side of breakwater.	.....	.....	.....	Red num.....	Red reflector.

## SOUTH SIDE

## LAKE SUPERIOR, MICHIGAN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.		(4) Nominal Range	(5) Ht. above water	(6) Ht. above ground Structure	(7) Daymark Remarks Year
	Upper Peninsula Generating Company Buoy 3.	In 18 feet .....				Black can .....	Private aid maintained from Mar 1 to Jan. 1.
	Presque Isle Harbor Merchandise Dock Approach Buoy 2.	In 20 feet, off dock ..				Red nun .....	Private aid maintained from April to Nov.
	(Chart 14963)						
1686	Granite Island Light .....	On island .....		9	89	Gray square granite tower on dwelling.	1869
	Fl. W., 6 <sup>s</sup>	46 43.3	87 24.7			39	
1687	Big Bay Point Light .....	On point .....		8	59	White column .....	1896-1961
	Fl. W., 6 <sup>s</sup>	46 50.5	87 40.8			18	
	Big Bay Point Buoy 1 .....	In 20 feet, north end of rocky shoals.				Black can .....	Ra ref. Can, winter marker. Green reflector.
1688	BIG BAY HARBOR WEST PIER LIGHT.	On end of breakwater.			25	TR on column .....	1961
	Fl. R., 4 <sup>s</sup>						
	Big Bay Harbor East Pier Day- beacon.	On end of breakwater.		5		SW on white pile .....	
1689	Stonard Rock Light .....	On north end of reef.		12	102	Gray conical tower on cylindrical crib.	1882
	Fl. W., 6 <sup>s</sup>	47 11.0	87 13.5				
	(Chart 14964)						
1690	Huron Island Light .....	On northeast side of island.		18	197	Gray granite tower on dwelling. 39	Winter light. Fl. W., HORN: 10 <sup>s</sup> (1 <sup>s</sup> fl). 1 blast ev 15 <sup>s</sup> (2 <sup>bl</sup> ). Operates continuously. Fog signal located 1,750 feet 309' from light tower. 1877
	Fl. W., 10 <sup>s</sup>	46 57.8	87 59.9				Red reflector. Green reflector.
	Point Abbaye Shoal Buoy 6 .....	In 22 feet .....				Red nun .....	
	Point Abbaye Shoal Bell Buoy 3...	In 28 feet .....				Black .....	
	<b>KEWEENAW BAY</b>						
1692	SAND POINT LIGHT .....	North of point .....		8	35	Red mast on small house .....	1878-1922
	Fl. W., 4 <sup>s</sup>	46 47.1	88 28.0				
	L'Anse Bay Shoal Buoy 2 .....	In 12 feet, south of Sand Point.				Red nun .....	Ra ref. Red reflector.
	L'Anse Wreck Buoy WR .....	In 12 feet, off end of submerged breakwater.				Black and red horizontally banded can.	
	(For South Side, see No. 2183)						
	<b>KEWEENAW WATERWAY</b> (Chart 14972)						
1693	—Lower Entrance Light .....	On outer end of break- water at entrance to waterway.		15	68	White Octagonal tower on concrete pierhead.	RBN: 296 kHz (m-m) VI. Antenna at light tower. HORN: 1 blast ev 30 <sup>s</sup> (3 <sup>bl</sup> ). 1856-1920
	Occ. W., 4 <sup>s</sup> (3 <sup>bl</sup> )	46 58.2	88 25.9				
1694	—Lighted Buoy 1 .....	In 25 feet, west side of entrance to waterway.		4		Black .....	
	Fl. G., 4 <sup>s</sup>						
1695	—Lighted Buoy 3 .....	In 25 feet, on west side of channel.		4		Black .....	
	Fl. G., 4 <sup>s</sup>						
1696	—Lighted Buoy 4 .....	In 25 feet, off north end of east pier.		4		Red .....	
	Fl. R., 4 <sup>s</sup>						
1697	—LIGHT 5 .....	In 7 feet, on west side of channel.		6	14	White pipe .....	1940
	Fl. W., 2.5 <sup>s</sup>						
	—Daybeacon 7 .....	On south end of west pier.				SW on black skeleton tower ...	

## KEWEENAW WATERWAY

## LAKE SUPERIOR, MICHIGAN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.		(4) Nominal Range	(5) Ht. above water	(6) Ht. above ground Structure	(7) Daymark Remarks Year
	— Daybeacon 9 .....	On north end of west pier.				SB on black skeleton tower .....	
1698	— LIGHT 10 .....	In 16 feet, on east side of channel.			5	14 TR on white pipe .....	1940
	Fl. R., 2.5 <sup>s</sup>						
1699	— LIGHT 11 .....	In 9 feet, on west side of channel.			4	30 White pipe .....	1940
	Fl. G., 2.5 <sup>s</sup>						
1700	— LIGHT 13 .....	In 16 feet, on west side of channel.			4	14 White square daymark on white pipe.	Green reflector. 1940
	Qk. Fl. G.						
1701	— SOUTH RANGE FRONT LIGHT. Qk. Fl. W.	On east side of channel.				30 White daymark on white tower ..	Visible all around, higher intensity on rangeline. 1897-1940
1702	— SOUTH RANGE REAR LIGHT .. E. Int. W., 6 <sup>s</sup>	1,600 feet 136° from front light.				51 White daymark on white tower ..	Visible on rangeline only. 1897 1940
1703	— LIGHT 15 .....	In 23 feet, on westerly side of channel.			4	14 SB on white pipe .....	1940
	Fl. G., 2.5 <sup>s</sup>						
1704	— LIGHT 17 .....	In 5 feet, on westerly side of channel.			4	14 White pipe .....	1940
	Fl. G., 2.5 <sup>s</sup>						
1705	— LIGHT 16 .....	In 5 feet, on easterly side of channel.			4	14 TR on white pipe .....	1940
	Fl. R., 2.5 <sup>s</sup>						
1706	— LIGHT 19 .....	In 5 feet, on westerly side of channel.			6	14 SW on white pipe .....	1940
	Fl. G., 2.5 <sup>s</sup>						
1707	— LIGHT 18 .....	In 5 feet, on easterly side of channel.			4	14 TR on white pipe .....	1940
	Fl. R., 2.5 <sup>s</sup>						
1708	— LIGHT 20 .....	In 5 feet, on easterly side of channel at turn.			4	14 TR on white pipe .....	1940
	Qk. Fl. R.						
1709	PRINCESS POINT RANGE FRONT LIGHT. Qk. Fl. W.	On west side of channel, on axis of cut in south end of Portage Lake.				35 White daymark on white tower...	Visible all around, higher intensity on rangeline. 1923-1940
1710	PRINCESS POINT RANGE REAR LIGHT. E. Int. W., 6 <sup>s</sup>	1,100 feet 164½° from light.				55 White daymark on white tower ..	Visible on rangeline only. 1923
1711	— LIGHT 22 .....	In 6 feet, on east side of channel.			4	13 TR on white pipe .....	1940
	Fl. R., 2.5 <sup>s</sup>						
1712	— Buoy 24 .....	In 25 feet .....				Red sun .....	Red reflector.
	— LIGHT 25 .....	In 4 feet, on west side of channel.			4	15 SW on white pipe .....	1940
	Fl. G., 2.5 <sup>s</sup>						
	— Buoy 26 .....	In 25 feet, on east side of north end of cut.				Red sun .....	Red reflector.
1713	— Lighted Buoy 27 .....	In 23 feet, on west side of north end of cut.			4	Black .....	
	Qk. Fl. G.						

(For continuation of Keweenaw Waterway, see No. 1724)

## TORCH LAKE CANAL

1714	— LIGHT 2 .....	In 18 feet .....			8	White triangular daymark .....	Private aid maintained from Apr. 1 to Dec. 15. 1962
	Occ. R., 1.3 <sup>s</sup> (1½h)						
1715	— RANGE A FRONT LIGHT .....	In 18 feet .....			10	White triangular daymark .....	Private aid maintained from Apr. 1 to Dec. 15. 1962
	Occ. W., 1.3 <sup>s</sup> (1½h)						
1716	— RANGE A REAR LIGHT .....	In 18 feet .....			15	White triangular daymark .....	Private aid maintained from Apr. 1 to Dec. 15. 1962
	Occ. R., 1.3 <sup>s</sup> (1½h)						
1717	— RANGE D FRONT LIGHT .....	In 18 feet .....			12	White triangular daymark .....	Private aid maintained from Apr. 1 to Dec. 15. 1962
	Occ. W., 1.3 <sup>s</sup> (1½h)						
1718	— RANGE D REAR LIGHT .....	In 18 feet .....			24	White triangular daymark .....	Private aid maintained from Apr. 1 to Dec. 15. 1962
	Occ. R., 1.3 <sup>s</sup> (1½h)						

## KEWEENAW WATERWAY

## LAKE SUPERIOR, MICHIGAN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.		(4) Nominal Range	(5) Ht. above water ground	(6) Structure Daymark	(7) Year
<b>TORCH LAKE CANAL</b>							
1719	— OBSTRUCTION LIGHT B Occ. W., 1.3 <sup>s</sup> (1 <sup>st</sup> lt)	In 18 feet			12	White triangular daymark	Private aid maintained from Apr. 1 to Dec. 15.
1720	— OBSTRUCTION LIGHT C Occ. W., 1.3 <sup>s</sup> (1 <sup>st</sup> lt)	In 18 feet			12	White triangular daymark	Private aid maintained from Apr. 1 to Dec. 15.
1721	— OBSTRUCTION LIGHT E Occ. R., 1.3 <sup>s</sup> (1 <sup>st</sup> lt)	In 18 feet			23	White triangular daymark	Private aid maintained from Apr. 1 to Dec. 15. 1962
1722	— LIGHT 4 Occ. R., 1.3 <sup>s</sup> (1 <sup>st</sup> lt)	In 18 feet			15	White triangular daymark	Private aid maintained from Apr. 1 to Dec. 15. 1962
<b>KEWEENAW WATERWAY</b>							
1723	— Lighted Buoy 28 Fl. R., 4 <sup>s</sup>	In 20 feet			4	Red	Ra ref. Nun; winter marker.
	— Buoy 30	In 22 feet, marks northwest end of Middle Ground.				Red nun	Red reflector.
1724	PILGRIM POINT LIGHT Fl. W., 4 <sup>s</sup>	On east edge of shoal. 47 06.4 88 30.4		8	20	Box on white pile	Higher intensity on bearing 165°, 1897-1963
1725	— Lighted Buoy 31 Gk. Fl. G.	In 27 feet		4		Black	Can; winter marker.
1726	— Buoy 33	In 20 feet				Black can	Green reflector.
	— Lighted Buoy 35 Fl. G., 4 <sup>s</sup>	In 20 feet				Black	Ra ref.
	— Buoy 34	In 24 feet				Red nun	Red reflector.
	— Buoy 36	In 24 feet				Red nun	Red reflector.
1727	OSCEOLA POINT LIGHT F. R.	On north shore 47 07.4 88 35.6		6	12	TR on white skeleton tower	1897-1942
1728	Atlantic Point Lighted Buoy 37 Fl. G., 4 <sup>s</sup>	In 25 feet		4		Black	Ra ref.
	— Buoy 39	In 30 feet, marks turn in channel.				Black can	Green reflector.
	— Buoy 40	In 22 feet, marks edge of channel at bend.				Red nun	Red reflector.
1729	— Lighted Buoy 42 Fl. R., 4 <sup>s</sup>	In 25 feet, opposite Cole Creek.		4		Red	Ra ref.
1730	COLE CREEK LIGHT F. G.	On southwest shore		6	15	SG on white tower on pile cluster.	1900-1940
	— Buoy 44	In 28 feet				Red nun	Red reflector.
	— Buoy 46	In 24 feet, easterly side of channel.				Red nun	Red reflector.
	— Buoy 48	In 18 feet				Red nun	Red reflector.
	— Buoy 49	In 20 feet				Black can	Green reflector.
1731	HARRINGTON ISLAND LIGHT F. G.	Off east side of island.		9	25	SB on white skeleton tower on crib.	1900
1732	— Lighted Buoy 50 Fl. R., 4	In 25 feet, off point		4		Red	Ra ref. Nun; winter marker.
	— Buoy 51	In 25 feet				Black can	Green reflector.
	— Buoy 52	In 25 feet, marks turn on east side of channel.				Red nun	Red reflector.
1733	ROULEAU POINT RANGE FRONT LIGHT. Gk. Fl. W.	In 6 feet, on axis of Lily Pond Lower Canal. 47 11.6 88 37.1			22	Red diamond center on white diamond field daymark on red skeleton tower.	Higher intensity to NE and S. Also serves as a leading light for Lily Pond Lower Canal. 1897-1937 1897-1937
1734	ROULEAU POINT RANGE REAR LIGHT. F. W.	1,280 feet 033 <sup>1</sup> / <sub>2</sub> ° from front light.			36	Red rectangular center on a white rectangular field day- mark on black skeleton tower.	1897-1937 1897-1937
	— Buoy 55	In 25 feet				Black can	Green reflector.
	— Buoy 54	In 25 feet				Red nun	Red reflector.

## KEWEENAW WATERWAY

## LAKE SUPERIOR, MICHIGAN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water	(6) Structure Ht. above ground Daymark	(7) Remarks	Year
	— Buoy 57 .....	In 25 feet .....			Black can .....	Green reflector.	
	— Buoy 56 .....	In 25 feet .....			Red nun .....	Red reflector.	
	— Buoy 59 .....	In 25 feet .....			Black can .....	Green reflector.	
	— Buoy 60 .....	In 25 feet .....			Red nun .....	Red reflector.	
	— Buoy 61 .....	In 25 feet .....			Black can .....	Green reflector.	
1735	LILY POND LEADING LIGHT F. R.	On east pier .....			28 White diamond daymark on black skeleton tower.		1894-1922
		47 12.0 88 37.1			26		
	— Buoy 63 .....	In 25 feet .....			Black can .....	Green reflector.	
1736	LILY POND SOUTH LIGHT 68 F. R.	On south end of east revetment.		7	12 TR on white skeleton tower		1903
1737	LILY POND NORTH LIGHT 70 F. R.	On north end of east revetment.		7	12 TR on white skeleton tower		1903
(For Keweenaw Waterway Upper Entrance see No. 1750)							
SOUTH SIDE (Chart 14964)							
1738	GRAND TRAVERSE BAY HARBOR LIGHT 2. Gp. Fl. W., 5 <sup>s</sup> 0.4 <sup>s</sup> fl., 0.6 <sup>s</sup> oc. 0.4 <sup>s</sup> fl., 3.6 <sup>s</sup> oc. (2 fl)	On outer end of north pier. 47 11.4 88 14.2		9	38 Small house on white skeleton tower.		1940-1951
1738.50	GRAND TRAVERSE BAY HARBOR LIGHT 3. Fl. G., 2.5 <sup>s</sup> Bete Grise Bay Shoal Buoy 1 .....	On outer end of south breakwater. In 32 feet, marks northeast end of shoal, off Point Isabelle.		4	27 SK on pile .....		1977
					Black can .....	Green reflector.	
1739	LAC LA BELLE SOUTH PIER- HEAD LIGHT. Fl. W., 4 <sup>s</sup>	On end of south pier ..		8	25 SB on white column .....		1960
1740	LAC LA BELLE NORTH PIER- HEAD LIGHT. Fl. R., 4 <sup>s</sup>	On end of north pier ..		4	25 White column .....		1960
1741	Keweenaw Point Lighted Buoy 1 .. Fl. W., 4 <sup>s</sup> Gull Rock Buoy 4 .....	In 30 feet .....		6	Black .....		
		In 20 feet .....			Red nun .....	Red reflector.	
1742	GULL ROCK LIGHT .....	On rock .....		9	50 Yellow square tower on dwelling. 46		1867
1743	E. Int. W., 6 <sup>s</sup> Manitou Light .....	On east point of Manitou Island. 47 25.2 87 35.2		26	81 White cylindrical tower .....	Winter light Fl. W., 6 <sup>s</sup> (1 <sup>fl</sup> ).	
					80	RBN: 312 kHz (mm) IV. HORN: 2 blasts ev 30 <sup>s</sup> (2 <sup>bl</sup> -2 <sup>si</sup> -2 <sup>bl</sup> -24 <sup>si</sup> ) RACON (M)	
1744	COPPER HARBOR LIGHT .....	On east point of entrance to harbor. 47 28.5 87 51.6		22	90 NR on white square skeleton tower near white dwelling. 62	Emergency light Fl. G., 6 <sup>s</sup> .	1849-1933
	Copper Harbor Entrance Bell Buoy CH.	In 90 feet .....			Black and white vertical stripes	White reflector.	
		47 28.7 87 51.8					
1745	COPPER HARBOR RANGE FRONT LIGHT. Qk. Fl. W.	On south shore of harbor. 47 28.2 87 52.0			22 White rectangular daymark with central red stripe on white tower on small red house.		1865-1927
1746	COPPER HARBOR RANGE REAR LIGHT. E. Int. W., 6 <sup>s</sup>	400 feet 190' from front light.			41 White rectangular daymark with central red stripe on skeleton tower.		1865-1964
					32		

## SOUTH SIDE

## LAKE SUPERIOR, MICHIGAN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. Ht. above water ground	(6) Structure Daymark	(7) Remarks Year
1747	Eagle Harbor Light..... Alt. Fl. W. and R., 20 <sup>s</sup> 0.1 <sup>s</sup> Fl., 9.9 <sup>ec</sup> . 0.1 <sup>s</sup> Fl., 9.9 <sup>ec</sup> .	On north point..... 47 27.7 88 09.5	29W 22R	60 44	White octagonal tower on red dwelling.	RBN: 312 kHz (•••••) V.I. Antenna 160 feet 263' from light tower. Obscured from 331' to 067'. HORN: 2 blasts ev 60 <sup>s</sup> (3•b1-3 <sup>s</sup> •s1-3 <sup>s</sup> •b1-51 <sup>s</sup> •s1). 1851-1871 1939-1962
1748	EAGLE HARBOR RANGE FRONT LIGHT. Ok. Fl. G.	On south side of harbor. 47 27.3 88 09.1	.....	22 16	White daymark on white skeleton tower.	1851-1871 1939-1962
1749	EAGLE HARBOR RANGE REAR LIGHT. F. G.	1,070 feet 150' from front light.	.....	35	White daymark on white skeleton tower.	1939-1952
1750	Keweenaw Upper Entrance Light... Fl. W., 15 <sup>s</sup>	On outer end of east breakwater. 47 14.1 88 37.8	.....	28 82 50	White square tower on cylindrical base.	RBN: 312 kHz (•••••) I. Antenna 3,000 feet 150' from light tower, on east side of channel. HORN: 1 blast ev 30 <sup>s</sup> (3 <sup>s</sup> •b1). 1874-1950 1902-1949
1751	KEWEENAW UPPER ENTRANCE WEST BREAKWATER LIGHT. Fl. R., 4 <sup>s</sup>	On outer end..... 47 14.0 88 37.9	.....	5 32	TR on white skeleton tower....	1874-1950 1902-1949
1752	KEWEENAW UPPER ENTRY EAST REVETMENT LIGHT 72. F. W.	On inner east pier... 47 13.6 88 37.6	.....	8 26	TR on white skeleton tower....	1875-1941
1753	KEWEENAW UPPER ENTRANCE WEST REVETMENT LIGHT. Fl. W., 4 <sup>s</sup>	On inner west pier... 47 13.6 88 37.6	.....	6 32	SG on white skeleton tower....	1949
(For Keweenaw Waterway, see No. 1737). (Chart 14965)						
1754	Ontonagon Lighted Bell Buoy 1.... Fl. G., 2.5 <sup>s</sup>	In 21 feet..... 46 53.0 89 20.0	.....	4	Black.....	Ra ref.
1755	ONTONAGON HARBOR EAST PIERHEAD LIGHT. E. Int. G., 6 <sup>s</sup>	Near end of breakwater.	.....	6 25	SB on white column.....	
1756	ONTONAGON HARBOR WEST PIERHEAD LIGHT. Fl. W., 4 <sup>s</sup>	On west pier at entrance to Ontonagon Harbor. 46 52.8 89 19.6	.....	9 31	White skeleton tower, upper part enclosed.	Higher intensity beam on bearing 150°.
1757	Black River Buoy 1..... BLACK RIVER EAST BREAKWATER LIGHT. Fl. W., 4 <sup>s</sup>	In 12 feet..... On end of breakwater. 46 40.1 90 02.9	.....	..... 9 30	Black can..... SB on white skeleton tower....	Ra ref. Green reflector.
1758	BLACK RIVER WEST BREAKWATER LIGHT. Fl. R., 4 <sup>s</sup>	On end of breakwater.	.....	6 30	TR on white skeleton tower....	1957
1759	SAXON HARBOR EAST BREAKWATER LIGHT. Fl. W., 6 <sup>s</sup>	On end of breakwater. 46 33.8 90 26.3	.....	7 24	SB on white column.....	1966
1760	SAXON HARBOR WEST BREAKWATER LIGHT. Fl. R., 6 <sup>s</sup>	On end of breakwater. 46 33.8 90 26.3	.....	5 24	TR on white column.....	1966
(Chart 14973)						
1761	Outer Island Light..... Fl. W., 6 <sup>s</sup>	On north point of island. 47 04.6 90 25.0	.....	11 130 80	White conical tower, dwelling attached.	1874
1762	GULL ISLAND LIGHT..... Fl. W., 2.5 <sup>s</sup>	On middle of island... 46 54.4 90 25.3	.....	7 55	Black square skeleton tower...	1929-1975

## SOUTH SIDE

## LAKE SUPERIOR, MICHIGAN AND WISCONSIN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. Ht. above water ground	(6) Structure	(7) Daymark Remarks Year
1763	Michigan Island Light Fl. W., 6 <sup>s</sup>	On south point of island. 46 52.3 90 29.8		11 170	White cylindrical tower 102	1857-1930
1764	Madeline Island Bell Buoy 2 La Pointe Light Fl. G., 5 <sup>s</sup>	In 54 feet On point 46 43.7 90 47.1		13 70	Red White cylindrical tower 51	Winter light, Fl. W., 4 <sup>s</sup> . RBN: 288 kHz (=====). Antenna 52 feet 071" from light tower. HORN: 1 blast ev 30 <sup>s</sup> (3 <sup>bl</sup> ). 1852-1897
1765	Madeline Island Lighted Buoy 4 Fl. R., 4 <sup>s</sup>	In 48 feet, marks west end of shoal.		4	Red	Nun; winter marker.
1766	CHEQUAMEGON POINT LIGHT Gp. Fl. G., 10 <sup>s</sup> 1 <sup>st</sup> fl., 2 <sup>nd</sup> ec. 1 <sup>st</sup> fl., 6 <sup>th</sup> ec. 2 flashes.	On end of point 46 43.7 90 48.6		10 39 35	White square pyramidal skeleton tower, upper part enclosed.	HORN: 1 blast ev 30 <sup>s</sup> (3 <sup>bl</sup> ).
CHEQUAMEGON BAY						
1767	Houghton Point Lighted Buoy 6 Fl. R., 4 <sup>s</sup>	In 70 feet		4	Red	Ra ref.
1768	—Lighted Buoy 1 Fl. G., 4 <sup>s</sup>	In 30 feet, on west edge of shoal.		4	Black	Ra ref.
Ashland Harbor (Chart 14974)						
1769	ASHLAND BREAKWATER LIGHT Fl. W., 6 <sup>s</sup>	On pierhead 46 37.7 90 52.2		9 60	White octagonal pyramidal tower.	1911-1915
1770	ASHLAND BREAKWATER SOUTH LIGHT. Fl. R., 4 <sup>s</sup>	On southeast end of breakwater.		5 25	White pile on white box	1958
	— Entrance Buoy 1	In 27 feet			Black can	Ra ref. Green reflector.
	— Entrance Buoy 2	In 23 feet			Red nun	Ra ref. Red reflector.
	— East Basin Buoy 1	In 19 feet			Black can	Green reflector.
	— Ore Docks Buoy 4	In 20 feet			Red nun	Red reflector.
	— Ore Docks Buoy 6	In 24 feet			Red nun	Red reflector.
	— East Basin Buoy 2	In 24 feet			Red nun	Red reflector.
	— Ore Docks Buoy 5	In 27 feet, marks southerly limit of dredged harbor.			Black can	Green reflector.
	— Buoy 1	In 22 feet			Black can	Green reflector.
	— Buoy 2	In 20 feet			Red nun	Red reflector.
	— Buoy 3	In 24 feet			Black can	Green reflector.
1771	—Lighted Buoy 4 Ok. Fl. R.	In 23 feet		4	Red	Ra ref.
	— Buoy 5	In 20 feet			Black can	Green reflector.
1772	—Lighted Buoy 6 Fl. R., 4 <sup>s</sup>	In 23 feet		4	Red	Ra ref.
	— Buoy 8	In 16 feet			Red nun	Red reflector.
	— Buoy 10	In 21 feet			Red nun	Red reflector.
	Reiss Coal Co. Dock Buoy 1	In 25 feet, at east side of entrance to dock No. 2.			Black spar	Private aid.
	Reiss Coal Co. Dock Buoy 2	In 18 feet, at west side of entrance to dock No. 2.			Red spar	Private aid.
SOUTH SIDE (Chart 14973)						
1773	MADLINE ISLAND MARINA EN- TRANCE SOUTH LIGHT. Fl. R. 4 <sup>s</sup>	Marks Harbor Entrance		15	TR on white metal frame	Private aid. Maintained from May 1 to Nov. 30.

## SOUTH SIDE

## LAKE SUPERIOR, WISCONSIN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W	(4) Nominal Range	(5) Ht. above water	(6) Structure Daymark	(7) Remarks Year
1774	MADLINE ISLAND MARINA EN- TRANCE NORTH LIGHT. Fl. W., 4'	Marks Harbor Entrance		15	Green square daymark on white metal frame.	Private aid. Maintained from May 1 to Nov. 30.
1777	MADLINE ISLAND BREAKWATER LIGHT. Fl. G., 4'	On south end of breakwater. 46 46.7 90 47.4		6 20	SB on white pile	1967
Pikes Bay Marina						
	— Buoy 2	In 5 feet			Red	Private aid maintained from Mar 1 to Dec 1.
	— Buoy 4	In 5 feet			Red	Private aid maintained from Mar. 1 to Dec. 1.
	— Buoy 5	In 5 feet			Black	Private aid maintained from Mar. 1 to Dec. 1.
	— Buoy 6	In 5 feet			Red	Private aid maintained from Mar. 1 to Dec. 1.
1777.51	— LIGHT 7 Fl. G., 4'	On breakwater		15	On pile	Private aid maintained from Mar. 1 to Dec. 1. 1974
1777.52	— LIGHT 8 Fl. R., 4'	On breakwater		15	On pile	Private aid maintained from Mar. 1 to Dec. 1. 1974
SOUTH SIDE						
1778	Bayfield Ruins Buoy 2 APOSTLE ISLANDS YACHT CLUB DOCK LIGHT. Ok. Fl. R.	In 26 feet On end of dock			Red sun Yellow diamond daymark on white pile.	Red reflector. Private aid maintained from May 1 to Nov. 1.
1779	BAYFIELD HARBOR SOUTH BREAKWATER LIGHT. Fl. W., 4'	On end of breakwater.		10 25	SB on white column	HORN: 1 blast ev 15' (2 1/2'). 1960
1780	BAYFIELD HARBOR NORTH BREAKWATER LIGHT. Fl. R., 4'	On end of breakwater.		4 25	TR on white column	1960
1780.50	BAYFIELD MUNICIPAL BREAK- WATER LIGHT. E. Int. G.	On end of breakwater.		25	On pile	Private aid. Maintained from Apr. 15 to Dec. 15.
1781	Red Cliff Point Lighted Buoy 4 Fl. R., 4'	In 42 feet, in West Channel, abreast point.		4	Red	Ra ref.
1782	LITTLE MANITOU ISLAND LIGHT. Fl. W., 4'	Off westerly end of island. 46 57.7 90 41.1		6 21	Pile with small house	1927
1783	RASPBERRY ISLAND LIGHT Fl. W., 2.5' Marina Shoal Buoy 3	On southwest point of island. In 19 feet, on shoal off west end of Raspberry Island.		7 55	Column, white box at base Black can	1862-1957 Green reflector.
1784	Devils Island Light Fl. R., 10'	On north end of island. 47 04.8 90 43.7		23 100	White cylindrical tower 71	Flash intensities alternate. Winter light, Fl. W., 4'. Antenna 220 feet 341' from light tower. RBN: 296 kHz (mm) II. HORN: 2 blasts ev 60' (3 1/2-3 1/2-3 1/2-51 1/2 mi). RACON (D) 1891-1901 Ra ref.
1785	York Island Shoals Lighted Bell Buoy 1. Fl. W., 4' Sand Island Buoy 2	In 30 feet, on west side of shoals.		6	Black	Red reflector.
1786	Sand Island Light Fl. W., 6' (1 1/2')	On north point of island. 47 00.2 90 56.2		7 60	White daymark on square skeleton tower.	1881-1933

## SOUTH SIDE

## LAKE SUPERIOR, WISCONSIN AND MINNESOTA

(1)	(2)	(3)		(4)	(5)	(6)	(7)
No.	Name Characteristic	Lat. N.	Long. W.	Nominal Range	Ht. above water	Ht. above ground Structure	Daymark Remarks Year
<b>Cornucopia Harbor</b> (Chart 14966)							
1787	CORNUCOPIA EAST PIER LIGHT. Fl. G., 2.5 <sup>s</sup>	On outer end of east pier. 46 51.7 91 06.2		4	20	White skeleton tower, small house at base.	Higher intensity beam lakeward. 1939-1963
<b>SOUTH SIDE</b>							
1788	PORT WING EAST PIER LIGHT ... Fl. W., 4 <sup>s</sup>	On outer end of pier ... 46 47.6 91 23.2		6	30	White skeleton tower .....	1913-1950 30
<b>DULUTH-SUPERIOR HARBOR</b>							
<b>SUPERIOR ENTRY</b> (Chart 14975)							
1789	— South Breakwater Light ..... Fl. G., 5 <sup>s</sup>	On outer end of breakwater. 46 42.6 92 00.4		22	70	White cylindrical tower on white fog signal building .	MGR RBN: 316 kHz. Antenna at light tower. HORN: 1 blast ev 30 <sup>s</sup> (3 % D) Emergency light nominal range 8 miles. 1913
1790	— NORTH BREAKWATER LIGHT .. Gk. Fl. R.	On outer end of		5	70	White skeleton tower, small white house at base on con- crete base.	1910-1912
1791	— INNER NORTH PIERHEAD LIGHT. E. lat. R., 6 <sup>s</sup>	On outer end of inner pier.		4	39	White skeleton tower, small house at base.	1912
1792	— INNER SOUTH PIERHEAD LIGHT. E. lat. G., 6 <sup>s</sup>	On outer end of inner pier.		9	39	White skeleton tower, small house at base.	1914-1949
1793	SUPERIOR HARBOR BASIN LIGHT 1. Fl. W., 2.5 <sup>s</sup>	On inner end of south pier.		5	36	White skeleton tower, small house at base.	1915
<b>ALLOUEZ BAY</b>							
1794	ALLOUEZ ORE DOCK NO. 3 WEST LIGHT. Fl. W., 4 <sup>s</sup>	On end of dock ..... 46 42.1 92 01.4			14	Pile .....	Private aid maintained from March 1 to Dec. 1. 1970
1795	ALLOUEZ ORE DOCK NO. 3 EAST LIGHT. Fl. W., 4 <sup>s</sup>	On end of dock .....			14	Pile .....	Private aid maintained from March 1 to Dec. 1. 1970
	— Entrance Buoy 1 .....	In 25 feet .....				Black can .....	Green reflector.
	— Channel Buoy 2 .....	In 22 feet .....				Red nun .....	Red reflector.
1796	— Lighted Buoy 3 .....	In 25 feet, on north- east edge of dredged channel.		6		Black .....	Ra ref. Can; winter marker.
	— Channel Buoy 4 .....	In 22 feet .....				Red nun .....	Red reflector.
	— Channel Buoy 5 .....	In 22 feet .....				Black can .....	Green reflector.
	— Channel Buoy 7 .....	In 22 feet .....				Black can .....	Green reflector.
1796. 10	BURLINGTON NORTHERN EAST DOCK LIGHT. Fl. W., 4 <sup>s</sup>				15	Pile .....	Private aid maintained from Mar. 1 to Nov. 1. 1970
1797	BURLINGTON NORTHERN WEST DOCK LIGHT. Fl. W., 4 <sup>s</sup>				15	Pile .....	Private aid maintained from Mar. 1 to Nov. 1. 1970
	Burlington Northern Dock Slip Buoy 2.	In 18 feet .....				Red nun .....	Ra ref. Private aid. Maintained from Apr 1 to Dec 1.
	Burlington Northern Dock Slip Buoy 4.	In 18 feet .....				Red nun .....	Ra ref. Private aid . Maintained from Apr 1 to Dec 1.

## DULUTH-SUPERIOR HARBOR

## LAKE SUPERIOR, WISCONSIN AND MINNESOTA

(1)	(2)	(3)		(4)	(5)	(6)	(7)			
No.	Name Characteristic	Lat. N.	Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure	Daymark	Remarks	Year
<b>SUPERIOR HARBOR BASIN</b>										
	— Anchorage Buoys A, B		In 25 feet, mark anchorage area.				White nun		White reflector.	
	— Buoy 1		In 25 feet				Black can		Green reflector.	
	— Buoy 3		In 23 feet				Black can		Green reflector.	
1798	— Lighted Buoy 4 Fl. R., 4 <sup>s</sup>		In 25 feet, at north corner of basin.		4		Red		Ra ref.	
	— Buoy 5		In 26 feet, marks line of Northern Pacific Railway.				Black can		Green reflector.	
<b>SUPERIOR FRONT CHANNEL</b>										
1799	RICES POINT LEADING LIGHT Occ. R., 4 <sup>s</sup> (3 <sup>1</sup> lt)		On shore 46 45.3 92 06.1			70	Red and white striped daymark on skeleton tower.		Higher intensity towards SE.	1935
1800	— RANGE FRONT LIGHT F. G.		46 42.4 92 02.1			41 43	White daymark on white skeleton tower.		Visible on rangeline only. Passing light visible from 090° to 330°. For southbound traffic.	1934
1801	— RANGE REAR LIGHT F. G.		1,420 feet 136' from front light.			57	White daymark on white skeleton tower.		Visible on rangeline only.	1934
1802	— Lighted Buoy 2 Ok. Fl. R.		In 25 feet, on north-east side of dredged channel.		4		Red			
	— Buoy 1		In 25 feet				Black can		Green reflector.	
	— Buoy 3		In 25 feet				Black can		Green reflector.	
	— Buoy 4		In 25 feet				Red nun		Red reflector.	
	— Buoy 5		In 25 feet				Black can		Green reflector.	
1803	— Lighted Buoy 6 Fl. R., 4 <sup>s</sup>		In 25 feet, on north-east side of dredged channel.		4		Red		Ra ref.	
	— Buoy 7		In 25 feet				Black can		Green reflector.	
	— Buoy 8		In 25 feet				Red nun		Red reflector.	
	— Buoy 9		In 25 feet				Black can		Green reflector.	
1804	— Lighted Buoy 10 Fl. R., 4 <sup>s</sup>		In 25 feet		4		Red		Ra ref.	
	— Buoy 12		In 25 feet				Red nun		Red reflector.	
	— Buoy 13		In 25 feet				Black can		Green reflector.	
1805	— Lighted Buoy 14 Fl. R., 4 <sup>s</sup>		In 25 feet, on north-east side of dredged channel.		4		Red		Ra ref.	
	— Buoy 15		In 22 feet, marks edge of shoal area.				Black can		Green reflector.	
	— Buoy 16		In 25 feet				Red nun		Red reflector.	
1806	— Lighted Buoy 18 Fl. R., 4 <sup>s</sup>		In 25 feet, at junction of Front Channel and East Gate Basin.		4		Red		Ra ref.	
1807	— Lighted Buoy 19 Fl. W., 4 <sup>s</sup>		In 25 feet, on south-westerly side of channel.		6		Black		Ra ref.	
	Minnesota Point Park Buoys 1, 3, 5, 7, 9		In 6 to 7 feet				Black can		White reflector.	
	East Gate Basin Buoy 20		In 25 feet				Red nun		Red reflector.	
<b>DULUTH HARBOR</b>										
	— Breakwater Buoy 2		In 26 feet, marks outer end of old breakwater.				Red nun		Red reflector.	

## DULUTH-SUPERIOR HARBOR

## LAKE SUPERIOR, WISCONSIN AND MINNESOTA

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water	(6) Ht. above ground Structure	(7) Daymark Remarks Year
DULUTH HARBOR						
1808	— South Breakwater Outer Light .. F. G.	On outer end of south pier. 46 46.8 92 05.3		14	44 White tower on fog signal building. 35	RBN: 296 kHz (m m m s) V. Antenna at light tower. HORN: 2 blasts ev 60 <sup>s</sup> (3 <sup>bl</sup> -3 <sup>st</sup> -3 <sup>bl</sup> -51 <sup>st</sup> ). 1874-1901
1809	— NORTH PIER LIGHT .....	On outer end of pier..		14	43 White cylindrical tower .....	1910
1810	— SOUTH BREAKWATER INNER LIGHT. Fl. W., 4 <sup>s</sup>	On inner end of south breakwater.		23	68 Black cylindrical tower with white lantern room. 67	1889-1901
1811	— Basin Buoy 1 .....	In 25 feet .....			Black can .....	Green reflector.
1811	— Basin Traffic Lighted Buoy .....	In 25 feet, at northern end of basin. To be left to starboard when passed.		6	Black and white vertical stripes.	Ra ref.
1812	— Basin Lighted Buoy 3 .....	In 25 feet, at north angle of basin.		6	Black .....	Ra ref.
1812.10	— MARINA LIGHT 2 .....	On north end of breakwater. 46 46.1 92 05.6			10 On pipe .....	Private aid maintained from May 1 to Nov. 1. 1975
1812.20	— MARINA LIGHT 4 .....	On south end of breakwater.			8 On pipe .....	Private aid maintained from May 1 to Nov. 1. 1975
1812.50	— Basin Lighted Buoy 2 .....	In 28 feet .....		4	Red .....	Nun; winter marker.
1813	— Basin Lighted Buoy 5 .....	In 25 feet, at south-east angle of basin.		6	Black .....	Ra ref.
	— Basin Anchorage Buoys A, B, C.	In 25 feet, marks anchorage area.			White can .....	White reflector.
1814	— Basin Lighted Buoy 7 .....	In 25 feet .....		6	Black .....	Ra ref.
1815	DULUTH MARINE TERMINAL EAST LIGHT. F. R.	On northwest corner of bulkhead.			28 White pile .....	Private aid maintained from Apr. 15 to close of navigation. 1961
1816	DULUTH MARINE TERMINAL SOUTH LIGHT. F. R.	On southeast corner of bulkhead.			28 White pile .....	Private aid maintained from Apr. 15 to close of navigation. 1961
1817	Rice Point Lighted Buoy 9 .....	In 25 feet, on east side of channel at turn.		4	Black .....	Ra ref.
	Hearding Island Channel Entrance Buoy 1, 2, 4, 6.	In 3 to 5 feet .....			Odd numbered black can; even numbered red nun.	Odd numbered green reflector; even number red reflector. Private aid maintained June 1 to Oct. 1.
ST. LOUIS BAY NORTH CHANNEL						
	West Gate Basin Buoy 1 .....	In 21 feet, at turn into North Channel.			Black can .....	Green reflector.
	— Buoy 2 .....	In 21 feet .....			Red nun .....	Red reflector.
	— Buoy 3 .....	In 21 feet .....			Black can .....	White reflector.
	— Buoy 4 .....	In 25 feet on north side of channel at turn, east end of bay.			Red nun .....	Red reflector.
1818	— Lighted Buoy 5 .....	In 25 feet, on south side of channel.		5	Black .....	Ra ref.
	— Buoy 7 .....	In 21 feet .....			Black can .....	White reflector.
1819	— RANGE FRONT LIGHT .....	In 7 feet, at west end of channel. 46 44.1 92 08.7			41 KRW on red skeleton tower	White reflector. 1893-1934
1820	— RANGE REAR LIGHT .....	In 7 feet, 800 feet 227' from front light.			57 KRW on red skeleton tower. On same structure as St. Louis Bay South Channel Range Rear Light.	1893-1934

## DULUTH-SUPERIOR HARBOR

## LAKE SUPERIOR, MINNESOTA

(1)	(2)	(3)	(4)	(5)	(6)	(7)
No.	Name Characteristic	Location Lat. N. Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure Daymark Remarks Year
<b>ST. LOUIS BAY NORTH CHANNEL</b>						
	— Buoy 8.....	In 21 feet .....			Red nun.....	Red reflector.
	— Buoy 9.....	In 21 feet .....			Black can.....	White reflector.
	— Buoy 10.....	In 22 feet .....			Red nun.....	Red reflector.
1821	— Lighted Buoy 11 Qk. Fl. W.	In 25 feet, at easterly intersection of north and cross channels.		5	Black .....	Can; winter marker. Ra ref.
	— Buoy 12.....	In 25 feet .....			Red nun.....	Red reflector.
1822	— Lighted Buoy 13 Qk. Fl. G.	In 25 feet, west of intersection of north and cross channels.		4	Black .....	Ra ref.
1823	— Lighted Buoy 14 Fl. R., 4 <sup>s</sup>	In 25 feet, on north bank.		4	Red .....	Ra ref.
	— Buoy 15.....	In 21 feet .....			Black can.....	White reflector.
	— Buoy 16.....	In 21 feet .....			Red nun.....	Red reflector.
	— Buoy 17.....	In 21 feet .....			Black can.....	White reflector.
1824	— St. Louis Bay Junction Lighted Buoy. I. Qk. Fl. W.	In 25 feet, at west intersection of north and south channels.		5	Red and black horizontal bands.	Nun; winter marker. Ra ref.
<b>HOWARDS BAY</b>						
	— Buoy 2.....	In 21 feet, marks west side of channel entrance. 46 44.7 92 06.1			Red nun.....	Red reflector.
<b>ST. LOUIS BAY SOUTH CHANNEL</b>						
	Burlington Northern Railroad Buoy 2.				Red nun.....	White reflector. Private aid.
	— Buoy 2.....	In 25 feet, junction of West Gate Basin with South Channel.			Red nun.....	Red reflector.
	— Buoy 4.....	In 25 feet .....			Red nun.....	Red reflector.
	— Buoy 5.....	In 27 feet .....			Black can.....	White reflector.
<b>ST. LOUIS BAY CROSS CHANNEL</b>						
1825	— Lighted Buoy 2 Qk. Fl. R.	In 25 feet, at easterly intersection of south and cross channels.		4	Red .....	Ra ref.
1826	— Lighted Buoy 1 Fl. W., 4 <sup>s</sup>	In 25 feet, at angle on west side of dredged channel.		6	Black .....	Ra ref. Can; winter marker.
	— Buoy 4.....	In 25 feet .....			Red nun.....	Red reflector.
1827	— Lighted Buoy 6 Fl. R., 4 <sup>s</sup>	In 25 feet, on east side of dredged channel.		4	Red nun.....	Ra ref.
	— Buoy 7.....	In 20 feet .....			Black can.....	White reflector.
	— Buoy 8.....	In 25 feet .....			Red nun.....	Red reflector.
<b>ST. LOUIS BAY SOUTH CHANNEL</b>						
1828	— RANGE FRONT LIGHT Qk. Fl. R.	In 7 feet, at west end of south channel. 46 44.1 92 08.7			41 KRW on red skeleton tower	Visible on rangeline only. Passing light visible around horizon. 1893-1934
1829	— RANGE REAR LIGHT F. R.	In 7 feet, 600 feet 247½' from front			57 KRW on red skeleton tower. Same structure as St. Louis Bay North Channel Range Rear Light.	Visible on rangeline only. 1893-1934
	— Buoy 6.....	In 21 feet .....			Red nun.....	Red reflector.
	— Buoy 7.....	In 21 feet .....			Black can.....	White reflector.
	— Buoy 8.....	In 21 feet .....			Red nun.....	Red reflector.

## DULUTH-SUPERIOR HARBOR

## LAKE SUPERIOR, MINNESOTA

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water ground	(6) Structure	(7) Daymark	Remarks	Year
ST. LOUIS BAY SOUTH CHANNEL								
1830	—Lighted Buoy 9 Fl. W., 4 <sup>s</sup>	In 25 feet, on south side of channel.		6	Black		Ra ref.	
	—Buoy 10	In 21 feet			Red nun		Red reflector.	
	—Buoy 11	In 21 feet, at entrance to slip.			Black can		White reflector.	
	—Buoy 12	In 21 feet			Red nun		Red reflector.	
1831	—Lighted Buoy 13 Qk. Fl. G.	In 25 feet, on southeast side of channel at turn.		4	Black		Ra ref.	
1831.20	—RANGE FRONT LIGHT 14 Qk. Fl. R.	In 7 feet, at west end of south channel.		4	42	On same structure as St. Louis Bay South Channel Range Front Light. TR on red skeleton tower.		1976
ST. LOUIS RIVER								
	—Entrance Buoy 1	In 21 feet			Black can		White reflector.	
	—Buoy 2	In 21 feet			Red nun		Red reflector.	
	—Buoy 3	In 21 feet			Black can		White reflector.	
	—Buoy 5	In 21 feet			Black can		White reflector.	
1832	—Lighted Buoy 6 Qk. Fl. R.	In 21 feet, off Grassy Point, on northwest side of channel at turn.		4	Red		Ra ref.	
	—Buoy 7	In 21 feet			Black can		White reflector.	
1833	—RANGE FRONT LIGHT F. G. F. G.	On east edge of channel at Grassy Point turn.		12 9	White daymark on black skeleton tower. tower.		Visible on rangeline only. Passing light visible from 030° to 270°. 1903-1934	
1834	—RANGE REAR LIGHT F. G.	On bank, 1,020 feet 084½" from front light.		27	White daymark on black skeleton tower.		Visible on rangeline only. 1903-1934	
	—Buoy 8	In 21 feet			Red nun		Red reflector.	
1835	—Lighted Buoy 9 Fl. W., 4 <sup>s</sup>	In 23 feet, on south side of channel.		6	Black		Ra ref.	
1836	—Lighted Buoy 10 Fl. R., 4 <sup>s</sup>	In 21 feet, on north side of channel.		4	Red		Ra ref.	
	—Buoy 13	In 23 feet			Black can		White reflector.	
1837	—Lighted Buoy 14 Fl. R., 4 <sup>s</sup>	In 21 feet, on north side of channel.		4	Red		Ra ref.	
1838	—Lighted Buoy 15 Fl. W., 4 <sup>s</sup>	In 23 feet, on south side of channel.		6	Black		Ra ref.	
	—Buoy 16	In 21 feet			Red nun		Red reflector.	
	—Buoy 19	In 21 feet			Black can		White reflector.	
	—Buoy 20	In 21 feet			Red nun		Red reflector.	
	—Buoy 21	In 20 feet			Black can		White reflector.	
1839	—Lighted Buoy 22 Fl. R., 4 <sup>s</sup>	In 21 feet		4	Red			
	—Buoy 23	In 20 feet			Black can		White reflector.	
	—Buoy 24	In 20 feet			Red nun		Red reflector.	
1840	—Lighted Buoy 26 Fl. R., 4 <sup>s</sup>	In 20 feet		4	Red			
	—Buoy 27	In 20 feet			Black can		White reflector.	
	—Buoy 28	In 20 feet			Red nun		Red reflector.	
	—Buoy 29	In 20 feet			Black can		White reflector.	
	—Buoy 31	In 20 feet			Black can		White reflector.	
	—Buoy 32	In 20 feet			Red nun		Red reflector.	
	—Buoy 33	In 20 feet			Black can		White reflector.	
	—Buoy 34	In 15 feet			Red nun		Ra ref. Red reflector.	
	—Buoy 35	In 20 feet			Black can		White reflector.	
	—Buoy 37	In 20 feet			Black can		White reflector.	
	—Buoy 38	In 20 feet			Red nun		Red reflector.	

## DULUTH - SUPERIOR HARBOR

## LAKE SUPERIOR, MINNESOTA

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.		(4) Nominal Range	(5) Ht. Ht. above water ground	(6) Structure Daymark	(7) Remarks	Year
<b>ST. LOUIS RIVER</b>								
— Buoy 40		In 20 feet			Red nun		Red reflector.	
— Buoy 42		In 14 feet			Red nun		Red reflector.	
— Buoy 43		In 19 feet			Black can		White reflector.	
— Buoy 44		In 23 feet			Red nun		Red reflector.	
— Buoy 46		In 17 feet			Red nun		Red reflector.	
— Buoy 48		In 21 feet			Red nun		Red reflector.	
— Buoy 52		In 23 feet			Red nun		Red reflector.	
— Buoy 55		In 13 feet			Black can		White reflector.	
— Buoy 56		In 18 feet			Red nun		Red reflector.	
— Buoy 57		In 13 feet			Black can		White reflector.	
— Buoy 58		In 15 feet			Red nun		Red reflector.	
— Buoy 59		In 17 feet			Black can		White reflector.	
— Buoy 60		In 16 feet			Red nun		Red reflector.	
— Buoy 61		In 15 feet			Black can		White reflector.	
— Buoy 62		In 14 feet			Red nun		Red reflector.	
— Buoy 63		In 15 feet			Black can		White reflector.	
— Buoy 64		In 16 feet			Red nun		Red reflector.	
— Buoy 65		In 15 feet			Black can		White reflector.	
— Buoy 66		In 19 feet			Red nun		Red reflector.	
— Buoy 67		In 20 feet			Black can		White reflector.	
— Buoy 68		In 22 feet			Red nun		Red reflector.	
— Buoy 69		In 24 feet			Black can		White reflector.	
— Buoy 71		In 7 feet			Black can		White reflector.	
— Buoy 73		In 10 feet			Black can		White reflector.	
— Buoy 75		In 6 feet			Black can		White reflector.	
— Buoy 76		In 6 feet			Red nun		Red reflector.	
— Buoy 77		In 7 feet			Black can		White reflector.	
— Buoy 79		In 7 feet			Black can		White reflector.	
— Buoy 80		In 6 feet			Red nun		Red reflector.	
— Buoy 81		In 6 feet			Black can		White reflector.	
— Buoy 83		In 5 feet			Black can		White reflector.	
— Buoy 85		In 6 feet			Black can		White reflector.	
— Buoy 87		In 7 feet			Black can		White reflector.	
— Buoy 88		In 7 feet			Red nun		Red reflector.	
— Buoy 89		In 7 feet			Black can		White reflector.	
<b>NORTHWEST SIDE</b>								
<b>Knife River Harbor</b>								
1841	— ENTRANCE LIGHT Fl. W., 4 <sup>s</sup>	On outer end of south breakwater. 46 56.6 91 46.6		10	20	White column 12		1957
<b>Two Harbors (Chart 14966)</b>								
1842	— Light Gp. Fl. W., 20 <sup>s</sup> .15 M., 4.85 <sup>s</sup> ec. .15 M., 14.85 <sup>s</sup> ec. 2 flashes.	On point, between Agate and Burlington Bays. 47 00.8 91 39.7		28	78	Red square tower on dwelling .. 50	RBN: 296 kHz (•••••) III. Antenna 95 feet 228" from light. Light obscured from 019° thru 224°. 1892	
1843	— EAST BREAKWATER LIGHT Fl. R., 5 <sup>s</sup>	On outer end of breakwater.		14	32	White square pyramidal skeleton tower, upper part inclosed.	HORN: 2 blasts ev 30 <sup>s</sup> (2 <sup>b</sup> bl-2 <sup>a</sup> si-2 <sup>b</sup> bl-2 <sup>a</sup> si) 1895-1950	1916
1844	— WEST BREAKWATER LIGHT Fl. W., 4 <sup>s</sup> Agate Bay Buoy 2 Agate Bay Buoy 4 Agate Bay Buoy 6	On breakwater .....		6	20	White mast on small white house. Red nun Red nun Red nun	Red reflector. Red reflector. Red reflector.	

## NORTHWEST SIDE

## LAKE SUPERIOR, MINNESOTA

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.		(4) Nominal Range	(5) Ht. above water	(6) Ht. above ground Structure	(7) Daymark Remarks Year
<b>SILVER BAY (Chart 14967)</b>							
1845	—Marker Radiobeacon .....	On shore .....					MKR RBN: 304 kHz.
		47 16.9	91 15.9				
1846	PELLET ISLAND LIGHT .....	On northeast side of .....			25		Private aid maintained from Apr. 15 to Nov. 15.
	Fl. G., 10 <sup>s</sup>	island.					1956
		47 16.2	91 15.9				
1847	—Lighted Buoy 1 .....	In 18 feet .....				Black .....	Private aid maintained from Apr. 15 to Nov. 15.
	Fl. G., 4 <sup>s</sup>						Ra ref. Private aid main- tained from Apr. 15 to Nov. 15.
1848	—Lighted Buoy 2 .....	In 27 feet .....				Red .....	Private aid maintained from Apr. 15 to Nov. 15.
	Fl. R., 4 <sup>s</sup>						1956
1849	—Lighted Buoy 3 .....	In 18 feet .....				Black .....	Private aid maintained from Apr. 15 to Nov. 15.
	Fl. G., 4 <sup>s</sup>						
1850	BEAVER ISLAND LIGHT .....	On southwest side of .....			20	Tower .....	HORN: 1 blast ev 30 <sup>s</sup> (3 <sup>bl</sup> ). Private aid maintained from Apr. 15 to Nov. 15.
	Fl. R., 10 <sup>s</sup>	47 16.8	91 15.5				1956
1851	—LEADING LIGHT .....	On shore .....			6	Black pipe .....	Private aid maintained from Apr. 15 to Nov. 15.
	Fl. G., 4 <sup>s</sup>	47 16.8	91 15.9				1962
1852	—LIGHT .....	On dock .....			126	On top of boiler house .....	Private aid maintained from Apr. 15 to Nov. 15.
	Fl. W., 30 <sup>s</sup> (3 <sup>bl</sup> )	43 17.2	91 15.5				1956
<b>TACONITE HARBOR</b>							
1853	—Marker Radiobeacon .....	On shore .....					MKR RBN: 320 kHz. of operation.
		47 31.3	90 55.4				
1854	BIG BOY LIGHT .....	On southwest point of .....		23W	65	Red skeleton tower .....	Private aid maintained from Apr. 1 to Dec. 31.
	Aft. Fl. W. and R., 12 <sup>s</sup>	Gull Island.		18R	35		1959
	0.1 <sup>s</sup> W fl., 5.9 <sup>s</sup> ec.	47 31.1	90 55.3				
	0.1 <sup>s</sup> R fl., 5.9 <sup>s</sup> ec.						
1855	—West Entrance Lighted Buoy 1 .....	In 33 feet .....				Black .....	Ra ref. Private aid maintained from Apr. 1 to Dec. 31. — Oil Drum, Winter Marker.
	Fl. G., 4 <sup>s</sup>						
1856	—West Entrance Lighted Buoy 2 .....	In 45 feet .....				Red .....	Ra ref. Private aid maintained from Apr. 1 to Dec. 31. Oil Drum, Winter Marker.
	Fl. R., 4 <sup>s</sup>						
1857	—RANGE FRONT LIGHT .....	On shore .....			86	Building .....	Visible 2 <sup>s</sup> each side of centerline of channel. Private aid maintained from Apr. 1 to Dec. 31. 1957
	F. G.				86		
1858	—RANGE REAR LIGHT .....	1,550 feet, 028° from .....			144	Aluminum tower .....	Visible 2 <sup>s</sup> each side of centerline of channel. Private aid maintained from Apr. 1 to Dec. 31. 1957
	F. G.	front light.			40		
1859	—WEST ENTRANCE LIGHT 3 .....	On west breakwater ..			24	Aluminum tower .....	Private aid maintained from Apr. 1 to Dec. 31. 1957
	Fl. G., 4 <sup>s</sup>				12		
1860	—WEST ENTRANCE LIGHT 4 .....	On east breakwater ..			24	Aluminum tower .....	Private aid maintained from Apr. 1 to Dec. 31. 1957
	Fl. R., 4 <sup>s</sup>				12		
1861	—EAST PIERHEAD LIGHT 2 .....	On end of breakwater ..			39	Aluminum tower .....	Private aid maintained from Apr. 1 to Dec. 31. 1957
	Fl. W., 4 <sup>s</sup>	47 31.6	90 94.4		25		
1862	—East Entrance Lighted Buoy 4 .....	In 27 feet .....				Red .....	Ra ref. Private aid maintained from Apr. 1 to Dec. 31. Oil Drum, Winter Marker.
	Fl. R., 4 <sup>s</sup>						

## NORTHWEST SIDE

## LAKE SUPERIOR, MINNESOTA AND MICHIGAN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water	(6) Ht. above ground Structure	(7) Daymark	Remarks	Year
<b>TACONITE HARBOR</b>								
1863	— EAST ENTRANCE LIGHT 5 ... Fl. G., 4 <sup>s</sup>	On north end of break- water extending from Bear Island.	.....	26	Black tower .....	12	Private aid maintained from Apr. 1 to Dec. 31, 1957	
1864	— East Entrance Lighted Buoy 7 .. Fl. W., 4 <sup>s</sup>	In 27 feet .....	.....	...	Black .....		Private aid maintained from Apr. 1 to Dec. 31. Oil Drum, Winter Marker.	
1865	— East Entrance Lighted Buoy 6 .. Fl. R., 4 <sup>s</sup>	In 27 feet .....	.....	...	Red .....		Ra ref. Private aid maintained from Apr. 1 to Dec. 1.	
1866	— Lighted Buoy 8 .....	In 27 feet .....	.....	...	Red .....		Ra ref. Private aid maintained from Apr. 1 to Dec. 31. Oil Drum, Winter Marker.	
	— Buoy 10 .....	In 30 feet .....	.....	...	Red .....		Ra ref. Private aid. Maintained from Apr. 1 to Dec. 31. Oil Drum Winter Marker.	
<b>GRAND MARAIS</b>								
1867	— Light .....	On outer end of east breakwater.		13	38	White square pyramidal skeleton tower, upper part inclosed.		1885-1922
1868	— WEST BREAKWATER LIGHT 1. Fl. G., 4 <sup>s</sup>	On breakwater .....	47 44.7 90 20.3	5	36	SB on black skeleton tower ....		1902-1904
1869	— HARBOR INNER BREAKWATER LIGHT 7. Fl. G., 2.5 <sup>s</sup>	Eastern end of breakwater.	47 44.6 90 20.4	5	25	SB on white column .....		1960
<b>NORTHWEST SIDE (Chart 14968)</b>								
1870	GRAND PORTAGE BAY ENTRANCE LIGHT. Fl. W., 4 <sup>s</sup>	On Hat Point .....	47 57.2 89 38.3	7	40	White skeleton tower .....		1960
1871	Rock of Ages Light .....	Off west end of Isle Royale.	47 52.0 89 18.8	29	117	White conical tower on cylindri- cal base. 130	Winter light Fl. W., 4 <sup>s</sup> . RBN: 312 kHz (m m s s) III . Antenna at light tower. HORN: 1 blast ev 30 <sup>s</sup> (3 <sup>1</sup> bl). 1908	
<b>Isle Royale (Chart 14976)</b>								
	— West End Buoy 2 .....	In 20 feet, marks west edge of 14-foot spot.	.....	...	Red nun .....		Red reflector.	
	Thompson Island Daybeacon .....	On northwest side of island.	.....	...	White triangular slatted daymark.		Private aid.	
	Thompson Island Wreck Buoy 1 .....	In 16 feet, east side of north gap of Washington Harbor.	.....	...	.....		Private aid.	
1872	WINDIGO DOCK LIGHT .....	On end of dock .....	.....	16	Red pile .....		Private aid.	1963
	Booth Island Passage Buoy 1 .....	In 24 feet, marks ex- treme end of shoal. 47 52.7 89 13.4	.....	...	Black can .....		Ra ref. Green reflector.	
	Booth Island Passage Buoy 3 .....	In 26 feet .....	.....	...	Black can .....		Ra ref. Green reflector.	
	Barnum Island Passage Buoy 5 ...	In 24 feet, marks Booth Island Passage.	.....	...	Black can .....		Green reflector.	
	Cumberland Point Buoy 2 .....	In 25 feet .....	.....	...	Red nun .....		Ra ref. Red reflector.	

## NORTHWEST SIDE

## LAKE SUPERIOR, MICHIGAN

(1)	(2)	(3)		(4)	(5)	(6)	(7)		
No.	Name	Location		Nominal Range	Ht. above water	Structure	Daymark	Remarks	Year
No.	Characteristic	Lat. N.	Long. W.						
<b>SISKIWIIT BAY PASSAGE</b>									
1873	— Lighted Bell Buoy SB Mo. (A) W.	In 72 feet 47 53.8	88 53.1	6	.....	Black and white vertical stripes.		Ra ref.	
	— Buoy 1	In 27 feet				Black can		Green reflector.	
	— Buoy 2	In 27 feet				Red nun		Red reflector.	
	— Buoy 3	In 44 feet				Black can		Green reflector.	
	Harlen Reef Buoy 2	In 22 feet				Red nun		Ra ref. Red reflector.	
<b>ISLE ROYALE</b>									
1874	Isle Royale Light Fl. W., 6 <sup>s</sup>	On Menagerie Island, 47 56.9	88 45.7	11	72	White octagonal tower, dwelling attached.			1875-1941
	Malone Bay Entrance Buoy 2	In 41 feet				Red nun		Ra ref. Green reflector.	
	Malone Bay Entrance Buoy 3	In 35 feet				Black can		Ra ref. White reflector.	
	Malone Bay Buoy 4	In 16 feet				Red nun		Red reflector.	
	Malone Bay Buoy 5	In 18 feet				Black can		Green reflector.	
<b>ROCK HARBOR</b>									
1875	— WEST ENTRANCE LIGHT Gp. Fl. W., 6 <sup>s</sup> 0.5 <sup>fl.</sup> , 1 <sup>sec.</sup> 0.5 <sup>fl.</sup> , 4 <sup>sec.</sup> (2 flashes.)	Northwesterly end of Caribou Island. 48 05.7	88 34.4	9	22	.....		DIAPHONE: 1 blast ev 20 <sup>s</sup> (2 <sup>bl.</sup> ). Sounds only when vessels are known to be entering or leaving harbor. Vessels should advise National Park Service, Houghton, Mich, of date and hour Fog Signal will be required. Private aid main- tained from May 1 to Nov. 15.	
1876	MOTT ISLAND DOCK LIGHT Qt. Fl. R.	On west end of dock.				.....		Private aid maintained from May 1 to Nov. 1. 1963	
1877	ROCK ISLAND DOCK LIGHT Qt. Fl. R.	On west end of main dock.			18	Red pile		Private aid maintained from May 1 to Nov. 1. 1963	
	Rock Harbor Daybeacon	On shore, southwest of harbor.				Red and white vertically striped diamond daymark.		Private aid.	
1878	Middle Island Passage Lighted Bell Buoy 2 Fl. R., 4 <sup>s</sup>	In 24 feet		4	.....	Red		Ra ref. Nun; winter marker.	
	Middle Island Passage Buoy 1	In 24 feet				Black can		Green reflector.	
	Middle Island Passage Buoy 3	In 24 feet				Black can		Green reflector.	
	Mott Island Shoal Buoy	In 6 feet, marks rock ledge between Mott and Caribou Islands.				Red and black horizontal bands; spar.		Private aid. Maintained from May 15 to Oct. 15.	
	West End Buoy 1	In 18 feet				Black can		Green reflector.	
	Daisy Farm Buoy 2	In 7 feet, marks reef near pier.				Red spar		Private aid. Maintained from May 15 to Oct. 15.	
	Daisy Farm Buoy 4	In 8 feet				Red spar		Private aid maintained from May 15 to Oct. 15.	
	Rock Harbor Intake Buoy A	In 20 feet				Orange and white horizontally banded spar.		Private aid maintained from May 15 to Oct. 15.	
	Rock Harbor Intake Buoy B	In 20 feet				Orange and white horizontally banded spar.		Private aid maintained from May 15 to Oct. 15.	
	West End Buoy 2	In 17 feet				Red nun		Red reflector.	
	Saug Harbor Buoy 2	In 18 feet				Red nun		Ra ref. Red reflector.	
	McCargoe Cove Entrance Buoy 1	In 8 feet, northeast side of entrance.				Black spar		Private aid maintained from May 1 to Nov. 1.	
	McCargoe Cove Entrance Buoy 2	In 7 feet, southwest of entrance.				Red spar		Private aid. Maintained from May 15 to Oct. 15.	

## NORTHWEST SIDE

## LAKE SUPERIOR, MICHIGAN

(1)	(2)	(3)		(4)	(5)	(6)	(7)
No.	Name Characteristic	Lat. N.	Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure Daymark Remarks Year
<b>Isle Royale</b>							
1879	BLAKE POINT LIGHT Fl. W., R. Sector 2 <sup>s</sup>	At Blake Point, north- east end of Isle Royale. 48 11.5 88 25.4		12W	40	NR on skeleton tower, with small house.	Red from 090° to 105° covering Canoe Rocks. 1917
	Blake Point Five-Foot Shoal Buoy.	In 24 feet, on shoal, off Blake Point.				Red and black horizontal bands; sun.	Ra ref. Red reflector.
	Blake Point Buoy 1.	In 24 feet				Black can	Ra ref. Green reflector.
	Locke Point Buoy 2.	In 20 feet				Red sun.	Ra ref. Red reflector.
<b>NORTHWEST SIDE (Chart 14968)</b>							
1880	Passage Island Light. Fl. W., 7.5 <sup>s</sup>	On southwest point of island. 48 13.4 88 22.0		25	78	Gray octagonal tower on dwelling, 44	RBN: 312 kHz (••••)V. Antenna at light tower. HORN: 1 blast ev 30 <sup>s</sup> (3 <sup>bl</sup> ). Emergency light nominal range 10 miles. RACON (G) 1882
<b>NORTHEAST SIDE (Chart 14962)</b>							
1881	Pancake Shoal Lighted Buoy. Fl. R.	Marks west end of shoal. C. 46 54.2 84 50.7				Red	Ra ref.
<b>(Can. Chart 2309)</b>							
1882	Michipicoten Harbor Light Fl. W., 30 <sup>s</sup>	On southeast end of Perkwakwia Point. C. 47 56.6 84 54.4		15	88	Skeleton tower	RBN: 292 kHz (••••)VI. DIAPHONE: 2 blasts ev 60 <sup>s</sup> (2 <sup>bl</sup> -3 <sup>bl</sup> -2 <sup>bl</sup> -23 <sup>bl</sup> -ai).
<b>(Can. Chart 2310)</b>							
1883	Caribou Island Light Gp. Fl. W., 10 <sup>s</sup> 0.5 <sup>fl.</sup> , 1.2 <sup>sec.</sup> 0.5 <sup>fl.</sup> , 1.2 <sup>sec.</sup> 0.5 <sup>fl.</sup> , 6.1 <sup>sec.</sup> 3 flashes.	On small island south- west of Caribou Island. C. 47 20.4 85 49.5		15	99	Concrete hexagonal pyramidal tower. 104	Winter light Fl. W. RBN: 292 kHz (••••)II. FOG HORN: 1 blast ev 60 <sup>s</sup> (4 <sup>bl</sup> ). RACON: (••••)
1884	Michipicoten Island Light Gp. Fl. W., 62/3 <sup>s</sup> 1/3 <sup>fl.</sup> , 1 <sup>sec.</sup> 1/3 <sup>fl.</sup> , 5 <sup>sec.</sup> 2 flashes.	On northeast end of island. C. 47 45.3 85 35.8		14	84	Concrete hexagonal tower 83	RBN: 292 kHz (••••)V. DIAPHONE: 1 blast ev 20 <sup>s</sup> (2 <sup>bl</sup> ).
<b>NORTH SIDE (Can. Chart 2304)</b>							
1885	Slate Islands Light Gp. Fl. W., 15 <sup>s</sup> fl., 3.5 <sup>sec.</sup> fl., 11.5 <sup>s</sup> 2 flashes.	On summit of hill, on south end of South Slate Island. C. 48 37.3 86 59.8			224	White octagonal tower 34	RBN: 292 kHz (••••)IV. DIAPHONE: 1 blast ev 60 <sup>s</sup> (3.5 <sup>bl</sup> ). Emergency Light.

## NORTH SIDE

## LAKE SUPERIOR, CANADA

(1)	(2)	(3)		(4)	(5)	(6)	(7)
No.	Name Characteristic	Lat. N.	Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure Daymark Remarks Year
1886	Bottle Island Light ..... Gp. Fl. W., 24 <sup>s</sup> Fl., 4 <sup>sec</sup> . Fl., 4 <sup>s</sup> Fl., 16 <sup>sec</sup> . 3 flashes.  (Can. Chart 2301)				18	118	White octagonal concrete tower. Dwelling 300 feet northeast- ward. 43 MKR RBN: 286 kHz. Antenna at tower. FOG HORN: 1 blast ev 30 <sup>s</sup> (3 <sup>bl</sup> ).
1887	Porphyry Point Light ..... Fl. W., 10 <sup>s</sup>				14	82	White daymark on tower ..... DIAPHONE: 1 blast ev 60 <sup>s</sup> (4 <sup>bl</sup> ). Emergency light.
1889	Trowbridge Island Light ..... Fl. W., 5 <sup>s</sup>					114	White octagonal concrete tower. 37 DIAPHONE: 2 blasts ev 60 <sup>s</sup> (3 <sup>bl</sup> -9 <sup>bl</sup> -3 <sup>bl</sup> -4 <sup>bl</sup> - 4 <sup>bl</sup> -1 <sup>bl</sup> ).
1890	ANGUS ISLAND LIGHT ..... Fl. W., 20 <sup>s</sup> (3.5 <sup>bl</sup> )	48 17.6	88 52.4		14	81	Skeleton tower on four concrete piers 34 RBN: 312 kHz (e s e s) II. FOG HORN: 1 blast ev 30 <sup>s</sup> (3 <sup>bl</sup> ). Emergency light.
THUNDER BAY							
1891	THUNDER CAPE LIGHT ..... Fl. W., 4 <sup>s</sup>					35	White diamond daymark on tower. 25
1892	Welcome Island Light ..... Fl. W., 5 <sup>s</sup>	48 18.1	88 56.3			138	Lattice tower ..... DIAPHONE: 2 blasts ev 60 <sup>s</sup> (2.5 <sup>bl</sup> -5 <sup>bl</sup> -2.5 <sup>bl</sup> - 50 <sup>bl</sup> ).
Port Arthur							
1893	—Thunder Bay Main Light ..... Fl. R., 5 <sup>s</sup>					47	White square structure, yellow headblock. Floodlighted. RBN: 325 kHz (e s e s). HORN: 3 blasts ev 60 <sup>s</sup> (2 <sup>bl</sup> -3 <sup>bl</sup> -2 <sup>bl</sup> -3 <sup>bl</sup> - 2 <sup>bl</sup> -48 <sup>bl</sup> ).
1894	PIE ISLAND LIGHT ..... Fl. W., 4 <sup>s</sup>	48 13.7	89 10.5			32	White diamond daymark on tower. Visible from all points of approach except where hidden by high land of Pie Island, east of it.
1895	MINK POINT LIGHT ..... Fl. W., 4 <sup>s</sup>	48 08.4	89 18.2			30	White diamond daymark on tower .
1896	JARVIS ROCK LIGHT ..... Fl. W., 4 <sup>s</sup>	48 06.2	89 17.6			40	White diamond daymark on mast..
1897	VICTORIA ISLAND LIGHT ..... Fl. W., 4 <sup>s</sup>	48 04.9	89 21.7			45	White square tower ..... 30 Visible from all points of approach on the inside channel and from the westward.

## SAND POINT LAKE

## SAND POINT LAKE, NAMAKAN LAKE, MINNESOTA AND CANADA

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.		(4) Nominal Range	(5) Ht. above water	(6) Structure Ht. above ground Daymark	(7) Remarks	Year
(Chart 14992)								
King Williams Narrows Buoy 2		In 15 feet				Red nun	Red reflector.	
		48 20.1	92 27.9					
King Williams Narrows Buoy 3		In 25 feet				Black can.	Green reflector.	
King Williams Narrows Buoy 5		In 25 feet				Black can.	Green reflector.	
King Williams Narrows Buoy 6		In 31 feet				Red nun.	Red reflector.	
CRANE LAKE								
Indian Island Buoy 1		In 15 feet				Black can	Green reflector.	
Indian Island Buoy 2		In 23 feet				Red nun	Red reflector.	
Baylis Island Buoy 3		In 25 feet				Black can	Green reflector.	
Bear Island Buoy 4		In 20 feet				Red nun	Red reflector.	
NAMAKAN LAKE (Chart 14994)								
Mica Island Daybeacon 2		On south side of island.				TR on pile		
		48 29.8	92 41.7					
Squaw Narrows Daybeacon 4						TR on skeleton tower		
		48 29.0	92 42.1					
Gagnon Point Daybeacon 6						TR on skeleton tower		
		48 28.6	92 42.7					
Arrowhead Island Buoy 7						Black can	White reflector.	
		48 28.3	92 43.1					
Alden Island Buoy 9						Black can	White reflector.	
Bivo Island Daybeacon 11		On west end of island.				SB on skeleton tower		
Bivo Island Buoy 13						Black can	White reflector.	
		48 27.5	92 42.8					
— Buoy 14						Red nun	Red reflector.	
		48 27.4	92 42.8					
Namakan Island Buoy 2		On southeast tip of island.				Red nun	Red reflector.	
		48 26.3	92 41.9					
— Buoy 16						Red nun	Red reflector.	
Kubel Island Buoy 18						Red nun	Red reflector.	
		48 27.2	92 43.6					
Sexton Island Buoy 20						Red nun	Red reflector.	
		48 26.9	92 44.8					
Cemetery Island Buoy 22						Red nun	Red reflector.	
		48 26.8	92 45.4					
Sweetnose Island Daybeacon 23		On northwest point of island.				White square daymark on skele- ton tower.	Green reflector.	
Sweetnose Island Buoy 24						Red nun	Red reflector	
		48 26.7	92 46.6					
— Buoy 25						Red nun	Red reflector.	
		48 26.3	92 47.1					
— Buoy 27						Black can	White reflector.	
		48 25.9	92 47.6					
KABETOGAMA LAKE (Charts 14994, 14995)								
— Buoy 29						Black can	White reflector.	
		48 26.1	92 48.5					
Sullivan Bay Buoy 2						Red nun	Red reflector.	
		48 25.7	92 49.9					
— Buoy 31						Black can	White reflector.	
		48 26.2	92 51.0					
— Buoy 32						Red nun	Red reflector.	
Green Island Buoy 34						Red nun	Red reflector.	
		48 26.4	92 54.0					

## KABETOGAMA LAKE

## RAINY LAKE, MINNESOTA AND CANADA

(1)	(2)	(3)		(4)	(5)	(6)		(7)	
No.	Name	Location		Nominal Range	Ht. above water	Ht. above ground	Structure	Remarks	Year
No.	Characteristic	Lat. N.	Long. W.				Daymark	Remarks	Year
	Feedem Island Buoy 36	48 26.8	92 55.1				Red nun	Red reflector	
	Knox Island Daybeacon 37	On northeast point of island.					White square daymark on skeleton tower.	Green reflector.	
	— Junction Buoy	48 27.2	92 56.3				Black and red horizontal bands; can.	White reflector.	
	— Buoy 38	48 27.8	92 57.6				Red nun	Red reflector.	
	— Buoy 39	48 27.9	92 58.8				Black can	White reflector.	
	— Buoy 40	48 28.7	93 00.4				Red nun	Red reflector.	
	— Buoy 42	48 28.7	93 00.7				Red nun	Red reflector.	
	— Buoy 44	48 29.1	93 03.6				Red nun	Red reflector.	
	Martin Island Buoy 1	48 27.3	92 58.9				Black can	White reflector.	
	Ram Island Buoy 4	48 28.3	93 01.8				Red nun	Red reflector.	
<b>RAINY LAKE</b>									
(Chart 14998)									
	— Buoy 2	In 8 feet					Red nun	Red reflector.	
	— Buoy 3	In 28 feet					Black can	White reflector.	
1900	ROBERTS ISLAND LIGHT 2	On submerged rocks off southerly end of island.			6	25	TR on skeleton tower on small house.		
	Fl. W., 4 <sup>s</sup>	48 37.2	93 16.0						
<b>CANOE CHANNEL</b>									
	— Daybeacon 4	On rock southeasterly of southerly end of Roberts Island.					TR on pile, concrete base		
	— Daybeacon 5	48 37.0	93 15.6				Black rectangular daymark on pile, concrete base.		
	— Buoy 7	In 6 feet, marks rock					Black can	White reflector.	
	— Daybeacon 6	Off southwesterly end of Stop Island.					TR on pile, concrete base		
	— Daybeacon 10	On rock awash, off westerly end of Grassy Island.					TR on pile, concrete base		
	— Daybeacon 12	On Bald Rock Point.					TR on pile, concrete base		
	— Buoy 14	In 8 feet					Red nun	Red reflector.	
	— Daybeacon 15	On submerged rock, off most southerly island of the Aeroplane Island group.					Black rectangular Daymark on pile, concrete base.		
	— Buoy 16	In 6 feet, marks rock.					Red nun	Red reflector.	
	— Daybeacon 17	On rock northwesterly of Neil Point.					Black rectangular daymark on pile, concrete base.	Red reflector.	
	Big American Island Daybeacon 19	On southwesterly end of Big American Island.					White square daymark	Green reflector.	
		48 36.3	93 09.0						
1901	FRANSEN ISLAND LIGHT 2	On northwesterly tip of island.			4		TR on skeleton tower on small house.		
	Fl. R., 4 <sup>s</sup>	48 37.7	93 15.1						
	Red Sucker Island Buoy 4	In 12 feet, off northwesterly end of island.					Red nun	Red reflector.	
		48 37.8	93 11.6						

RAINY LAKE

RAINY LAKE AND RAINY RIVER, MINNESOTA AND CANADA

(1)	(2)	(3)		(4)	(5)	(6)		(7)
No.	Name	Location		Nominal Range	Ht. above water	Ht. above ground	Structure	Remarks
No.	Characteristic	Lat. N.	Long. W.				Daymark	Year
1902	LICHEN ISLAND LIGHT ..... Fl. W., 5 <sup>s</sup>	On small island west of island. C.		48 40.2 93 11.8	25		White daymark on mast on concrete base.	Visible from 340° to 210°.
1903	Red Sucker Island Buoy 6 ..... BALD ROCK LIGHT 8 ..... Fl. W., 4 <sup>s</sup>	On a large exposed rock, southerly of westerly end of Red		In 19 feet ..... 48 37.4 93 10.9	6	39	Red nun ..... TR on skeleton tower on small house.	Red reflector.
(Chart 14997)								
	— Buoy 7 .....	In 15 feet .....					Black can .....	White reflector.
	— Buoy 8 .....	In 30 feet .....					Red nun .....	Red reflector.
	South Shore Buoys 1, 3, 5, 7, 8, 10, .....	In 12 to 15 feet .....					Odd numbered, black can; even numbered, red nun.	
1904	CAPSTAN REEF LIGHT ..... Fl. W., 4 <sup>s</sup>	On reef 3 miles east of Sand Point. C.		48 38.1 93 03.0		17	White structure on concrete crib.	
1904. 50	MACKENZIE ISLAND LIGHT ..... Fl. W., 4 <sup>s</sup>	On Mackenzie Island. C.		48 36.5 92 56.4		26	Mast, white diamond daymark ...	Visible from 290° to 110°.
	Olsons Reef Buoy 10 "OR" .....	In 12 feet .....					Red nun .....	Red reflector.
	— Buoys 12, 13, 15, 16, 18, 19, 20, 22, 24, 26, .....	In 5 to 15 feet .....					Odd numbered, black can; even numbered, red nun.	Odd numbered, white reflector; even numbered, red reflector.
1905	BRULE NARROWS LIGHT ..... Fl. W., 4 <sup>s</sup>	On north point of east entrance to Brule Narrows. C.		48 35.8 92 54.0		22	Lattice tower on concrete base.	
	— Buoy 28, 29, 30, 31, 32 .....	In 6 to 23 feet .....					Odd numbered, black can; even numbered, red nun.	Odd numbered, white reflector; even numbered, red reflector.
	— Daybeacon 34 .....						TR .....	
	Hitchcock Bay Buoy 35 .....	48 33.6 92 53.4					Black can .....	White reflector.
	Hitchcock Bay Buoy 35A .....	In 10 feet .....					Black can .....	White reflector.
	Hitchcock Island Daybeacon 36 .....	In 6 feet .....					TR .....	
		48 32.6 92 53.2						
(Chart 14996)								
	— Buoys 37, 38, 39, 41 .....	In 12 feet .....					Odd numbered, black can; even numbered, red nun.	Odd numbered, white reflector; even numbered, red reflector.
	Surveyors Island Daybeacon 43 ...	48 31.1 92 37.7					SG .....	Green reflector.
KETTLE CHANNEL								
	— Buoys 2, 4, 6, 7 .....	In 4 to 8 feet .....					Odd numbered, black can; even numbered, red nun.	Odd numbered, white reflector; even numbered, red reflector.
	— Buoys 8, 9, 10, 12, 14, 15, 17, .....	In 4 to 8 feet .... C.					Odd numbered, black can; even numbered, red nun.	Odd numbered, white reflector; even numbered, red reflector.
1906	OAK POINT ISLAND LIGHT ..... Fl. W., 4 <sup>s</sup>	On Oak Point. C.		48 31.7 92 36.2		30	White diamond daymark on mast.	Visible from 90° to 270°.
1907	GULL ROCKS LIGHT ..... Fl. W., 4 <sup>s</sup>	On Gull Rocks. C.		48 33.8 92 46.6			White rectangular daymark on mast.	
RAINY RIVER (Chart 14998)								
1908	RANIER RANGE FRONT LIGHT ... F. G.	90 feet south from center of railroad bridge.		48 36.7 93 21.2		17	KRW on mast .....	1910

RAINY RIVER

LAKE OF THE WOODS, CANADA AND MINNESOTA

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water	(6) Structure Ht. above ground Daymark	(7) Remarks	Year
1909	RANIER RANGE REAR LIGHT F. G.	161 feet 105' from front light.		20	KRW on mast		1910
1910	RANIER BRIDGE RANGE FRONT LIGHT. F. G.	On shore ..... C. 48 36.8 93 22.0		28	Red and white horizontally banded diamond daymark, on mast.		
1911	RANIER BRIDGE RANGE REAR LIGHT. F. G.	400 feet 285' from front light. C.		40	Red and white horizontally banded diamond daymark, on mast.		
<b>BAUDETTE HARDOR</b>							
	— Buoy 1, 2, 3, 4, 6, 7	In 10 feet, marks channel and turning basin.			Odd numbered, black can; even numbered, red nun.	Odd numbered, white reflector; even numbered, red reflector.	
(Chart 14999)							
	Wheeler Point Buoy 6	In 6 feet north of Wheeler Point.			Red nun	Red reflector.	
1912	WHEELER POINT LIGHT 4 Fl. R., 4 <sup>s</sup>	On point ..... 48 50.4 94 41.2		5 20	TR on steel pile		1976
	— Four Mile Bay Buoy 2	In 9 feet			Red nun	Red reflector.	
	— Four Mile Bay Buoy 5	In 9 feet			Red nun	Red reflector.	
1912.50	Rainy River Entrance Lighted Buoy 2. Fl. R., 4 <sup>s</sup>	In 10 feet		4	Red	Red reflector. Nun, winter marker.	
1913	Rainy River Entrance Lighted Buoy. Fl. R.	.....C. 48 51.2 94 41.7			Red boat type		
<b>LAKE OF THE WOODS</b>							
1914	OAK POINT LIGHT Fl. W., 6 <sup>s</sup>	On easterly end of Curry's Island. 48 52.6 94 41.2		7 26	NR on skeleton tower on small house.		1941
	— Long Point East Shoal Buoy 1	In 12 feet			Black can	White reflector.	
1915	GULL ROCK LIGHT Fl. W., 4 <sup>s</sup>	At entrance to Muskeg Bay. 48 59.0 95 03.6		6 17	NB on skeleton tower		1941
1916	Warroad Lighted Buoy 2 Gp. Fl. W., 5 <sup>s</sup> (2 flashes)	In 8 feet, on west side of channel.		6	Red	Nun; winter marker.	
1916.50	WARROAD JETTY LIGHT 4 Fl. R., 4 <sup>s</sup>	On end of jetty		4 20	TR on pile		1976
1917	WARROAD RANGE FRONT LIGHT. F. G.	In 5 feet, on south side of channel, at turn. 48 54.0 95 18.4		35	KRW on concrete block	Visible on rangeline. 1907-1927	
1918	WARROAD RANGE REAR LIGHT. OCC. W., 4 <sup>s</sup> (3 <sup>s</sup> R)	1,050 feet 223' from front light.		60	KRW on concrete block	Visible 15' each side of rangeline. 1907-1927	
1919	BUFFALO POINT LIGHT Fl. W., 4 <sup>s</sup>	On point ..... C. 49 00.0 95 13.9		35	Red and white horizontally striped daymark on mast.		
1919.10	BIRCH POINT LIGHT Fl. W., 4 <sup>s</sup>	..... C. 49 09.9 95 14.0		23	Fluorescent red and white horizontally striped daymark on mast.		1974
	Stony Point Reef Buoy 2	In 10 feet off point			Red nun	Red reflector.	
(Can. Chart 6202, 6203)							
1920	Bell Buoy Shoal Lighted Buoy Fl. G.	West of shoal ..... C. 48 55.6 94 39.8			Black		
1921	BURTON ISLAND LIGHT Fl. W., 4 <sup>s</sup>	On west end of island. ..... C. 48 57.0 94 37.0		35	Red and white daymark on skele- ton tower.		
1922	ROCKY POINT LIGHT F. W.	..... C. 48 57.5 94 32.3		25	White daymark on mast		

## LAKE OF THE WOODS

## LAKE OF THE WOODS, CANADA

(1)	(2)	(3)		(4)	(5)	(6)	(7)		
No.	Name Characteristic	Lat. N.	Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure Daymark	Remarks	Year
1923	TOMAHAWK ISLAND LIGHT Fl. W., 4 <sup>s</sup>		On island, off McCauley Bay. C. 49 01.5 94 30.5			32	White and green rectangular daymark on mast.		
1924	DAWSON NARROWS EAST ENTRANCE LIGHT. Fl. W., 4 <sup>s</sup>		At northeast side of small island. C. 49 06.1 94 30.6			25	White daymark on mast		
1925	PORK POINT LIGHT Fl. W.		On northwest tip of island northeast of Pork Point. C. 49 05.8 94 21.8			24	White diamond daymark on mast.	Visible 131° to 156°.	
1926	BRULE POINT LIGHT Fl. W., 4 <sup>s</sup>		On rock, NW of point. C. 49 07.9 94 20.2			30	White diamond daymark on mast.		
1927	FISH NARROWS LIGHT Fl. W., 5 <sup>s</sup>		On small island at east entrance. C. 49 09.3 94 27.0			20	White daymark on mast.		
1928	RABBIT POINT LIGHT Fl. W., 4 <sup>s</sup>		..... C. 49 10.4 94 18.3			25	White daymark on mast		
1929	OBABIKON REEF LIGHT Fl. R., 4 <sup>s</sup>		..... C. 49 11.2 94 18.4			27	Red and white diamond daymark on mast.		
1930	BINK PORTAGE LIGHT Fl. W., 4 <sup>s</sup>		..... C. 49 12.6 94 19.7			25	White diamond daymark on mast.		
	(Can. Chart 6205)								
1931	SIOUX NARROWS WHARF LIGHT F. W.		On outer end of wharf. C. 49 24.5 94 05.6			19	Mast		
1933	FIRE ISLAND NARROWS LIGHT Fl. W., 5 <sup>s</sup>		On Fire Island ... C. 49 24.9 94 08.6			20	White daymark on mast	Visible from 275° to 321°.	
1934	PEWABIC ISLAND LIGHT Fl. W., 4 <sup>s</sup>		On east point of island C.			22	White diamond daymark on mast.	Visible from 250° to 360°.	
1935	YELLOW GIRL BAY LIGHT Fl. W., 4 <sup>s</sup>		..... C. 49 32.2 94 22.0			18	Structure		
1936	Allans Reef Lighted Buoy 2 Fl. R.		Andrew Bay ... C. 49 38.2 94 27.2				Red		
	(Can. Chart 6203)								
1937	FERRIS ISLAND LIGHT Fl. W., 5 <sup>s</sup>		Off Hooper Point, west west end of Bigsby Island. C. 49 03.1 94 38.8			46	White daymark on mast	Visible from 002° to 180°.	
1938	DRIFTWOOD POINT LIGHT Fl. W., 4 <sup>s</sup>		Southerly of Driftwood Point. 49 12.4 94 56.7		6	46	White skeleton tower on small white house. 35		1941-1959
	(Can Chart 6204)								
1939	SQUAW ISLAND LIGHT Fl. W., 4 <sup>s</sup>		On small island, south of Squaw Island. C. 49 17.7 94 49.2			38	White and green horizontally striped daymark on mast.		
1940	OAK ISLAND LIGHT 1 Fl. G., 4 <sup>s</sup>		Southwesterly tip of island. 49 19.1 94 53.1			39	SW on skeleton tower on small house.		1941
1941	FLAG ISLAND LIGHT Fl. W., 6 <sup>s</sup>		On reef in main channel. 49 20.1 94 52.9		7	19	White daymark on mast on concrete base.		
	Flag Island Buoy 2		In 6 feet, 2,800 feet from Flag Island Light.				Red		
	— Brush Island Buoy 2		In 11 feet, on west side of Island.				Red sun	Red reflector	

## LAKE OF THE WOODS

## LAKE OF THE WOODS, CANADA

(1)	(2)	(3)		(4)	(5)	(6)	(7)		
No.	Name Characteristic	Lat. N.	Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure Daymark	Remarks	Year
1923	TOMAHAWK ISLAND LIGHT Fl. W., 4 <sup>s</sup>		On island, off McCauley Bay. C. 49 01.5 94 30.5			32	White and green rectangular daymark on mast.		
1924	DAWSON NARROWS EAST ENTRANCE LIGHT. Fl. W., 4 <sup>s</sup>		At northeast side of small island. C. 49 06.1 94 30.6			25	White daymark on mast		
1925	PORK POINT LIGHT Fl. W.		On northwest tip of island northeast of Pork Point. C. 49 05.8 94 21.8			24	White diamond daymark on mast.	Visible 131° to 156°.	
1926	BRULE POINT LIGHT Fl. W., 4 <sup>s</sup>		On rock, NW of point. C. 49 07.9 94 20.2			30	White diamond daymark on mast.		
1927	FISH NARROWS LIGHT Fl. W., 5 <sup>s</sup>		On small island at east entrance. C. 49 09.3 94 27.0			20	White daymark on mast.		
1928	RABBIT POINT LIGHT Fl. W., 4 <sup>s</sup>		..... C. 49 10.4 94 18.3			25	White daymark on mast		
1929	OBABIKON REEF LIGHT Fl. R., 4 <sup>s</sup>		..... C. 49 11.2 94 18.4			27	Red and white diamond daymark on mast.		
1930	BINK PORTAGE LIGHT Fl. W., 4 <sup>s</sup>		..... C. 49 12.6 94 19.7			25	White diamond daymark on mast.		
	(Can. Chart 6205)								
1931	SIOUX NARROWS WHARF LIGHT F. W.		On outer end of wharf. C. 49 24.5 94 05.6			19	Mast		
1933	FIRE ISLAND NARROWS LIGHT Fl. W., 5 <sup>s</sup>		On Fire Island ... C. 49 24.9 94 08.6			20	White daymark on mast	Visible from 275° to 321°.	
1934	PEWABIC ISLAND LIGHT Fl. W., 4 <sup>s</sup>		On east point of island C.			22	White diamond daymark on mast.	Visible from 250° to 360°.	
1935	YELLOW GIRL BAY LIGHT Fl. W., 4 <sup>s</sup>		..... C. 49 32.2 94 22.0			18	Structure		
1936	Allans Reef Lighted Buoy 2 Fl. R.		Andrew Bay ... C. 49 38.2 94 27.2				Red		
	(Can. Chart 6203)								
1937	FERRIS ISLAND LIGHT Fl. W., 5 <sup>s</sup>		Off Hooper Point, west west end of Bigsby Island. C. 49 03.1 94 38.8			46	White daymark on mast	Visible from 002° to 180°.	
1938	DRIFTWOOD POINT LIGHT Fl. W., 4 <sup>s</sup>		Southerly of Driftwood Point. 49 12.4 94 56.7		6	46	White skeleton tower on small white house. 35		1941-1959
	(Can Chart 6204)								
1939	SQUAW ISLAND LIGHT Fl. W., 4 <sup>s</sup>		On small island, south of Squaw Island. C. 49 17.7 94 49.2			38	White and green horizontally striped daymark on mast.		
1940	OAK ISLAND LIGHT 1 Fl. G., 4 <sup>s</sup>		Southwesterly tip of island. 49 19.1 94 53.1			39	SW on skeleton tower on small house.		1941
1941	FLAG ISLAND LIGHT Fl. W., 6 <sup>s</sup>		On reef in main channel. 49 20.1 94 52.9		7	19	White daymark on mast on concrete base.		
	Flag Island Buoy 2		In 6 feet, 2,800 feet from Flag Island Light.				Red		
	— Brush Island Buoy 2		In 11 feet, on west side of Island.				Red sun	Red reflector	

## LAKE OF THE WOODS

## LAKE OF THE WOODS, CANADA

(1)	(2)	(3)		(4)	(5)	(6)	(7)		
No.	Name Characteristic	Lat. N.	Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure Daymark	Remarks	Year
1957	ALLANS NARROWS LIGHT ..... Fl. R., 4 <sup>s</sup>	At east entrance to narrows, Matheson Bay. C. 49 43.1 94 28.1		.....	24		Red and white rectangular daymark on red circular tower.		
1958	ISLAND D - 92 LIGHT (GALTSIS) ... Fl. R., 4 <sup>s</sup>	On southeast point of island, 4 miles south of Kenora. C. 49 43.3 94 29.0		.....	29		Red and white horizontally striped rectangular daymark with red triangle in center on mast.		
1959	DEVILS GAP (HEAD) LIGHT .... F. G.	On east side of south end of gap. C. 49 43.8 94 28.6		.....	40		Mast .....		
1960	DEVILS GAP (FOOT) LIGHT .... F. G.	At north end of gap .. C. 49 44.6 94 29.4		.....	30		Mast .....		
1961	SAFETY BAY LIGHT .....	On reef ..... C. 49 45.6 94 31.4		.....	17		Red and white horizontally striped rectangular daymark with red triangle in center on mast.		
1962	GULL ROCK LIGHT .....	On reef ..... C. 49 43.8 94 32.3		.....	21		Red and white horizontally striped rectangular daymark with red triangle in center on mast.		
1963	CHANNEL ISLAND LIGHT ..... Fl. W., 4 <sup>s</sup>	On northwest point of island. C. 49 43.0 94 31.6		.....	20		Red and white horizontally striped rectangular daymark with red triangle in center on mast.	Visible from 090° to 180°.	
1964	MENZIES REEF LIGHT .....	South of entrance to Keewatin Bay. C. 49 45.0 94 32.8		.....	19		Red and white horizontally striped rectangular daymark with red triangle in center on mast.		

## STRAITS OF MACKINAC

## LAKE MICHIGAN, MICHIGAN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water	(5) Ht. above ground	(6) Structure Daymark	(7) Remarks	Year
(Chart 14881)								
2000	St. Helena Light .....	On southeast point of St. Helena Island. 45 51.3 84 51.8		7	71	White conical tower connected to dwelling. 71		1873
	St. Helena Southeast Shoal Buoy 1 ..	In 18 feet, on southerly side of shoal.				Black can .....	White reflector.	
	St. Helena Shoal Buoy SHS .....	In 19 feet, on south side of 8-foot shoal.				Red and black horizontal bands; sun.	Red reflector.	
LAKE MICHIGAN (Chart 14911)								
	Manitou Paymen Shoal Buoy 2 .....	In 17 feet, on south west point of shoal.				Red sun .....	Red reflector.	
2001	New Shoal Lighted Buoy 1 .....	In 32 feet .....		5		Black .....	Ra ref.	
	Fl. G., 4 <sup>s</sup> 45 49.2 85 04.8							
2002	New Shoal Lighted Bell Buoy 3 ...	In 57 feet .....		7		Black .....	Ra ref. Can; winter marker.	
	Fl. W., 4 <sup>s</sup> 45 49.2 85 08.0							
2003	White Shoal Light .....	In 29 feet, on east end of shoal. 45 50.5 85 08.1		28	125	Red and white spirally banded conical crib. 124	HORN: 1 blast ev 30 <sup>s</sup> (3 <sup>bl</sup> ). Standby light. Fl. W., 6 <sup>s</sup> . 1910	
	White Shoal Buoy .....	In 30 feet, on south- west edge of shoal.				Red and black horizontal bands; sun.	Red reflector.	
2004	Simmons Reef Lighted Bell Buoy 2.	In 26 feet, on south end of reef. 45 54.2 85 12.9		6		Red .....	Ra ref. Nun station buoy with red reflector; winter marker.	
GRAYS REEF PASSAGE CHANNEL								
	—Buoy 1 .....	In 32 feet, at east side of north entrance to channel.				Black can .....	Ra ref. White reflector. Can; winter marker.	
2005	—Lighted Bell Buoy 2 .....	In 32 feet .....		5		Red .....	Ra ref. Nun; winter marker	
	Fl. R., 4 <sup>s</sup>							
2006	Grays Reef Light .....	In 26 feet, at elbow in Grays Reef East Channel. 45 46.0 85 09.2		15	82	White square tower on concrete crib.	Light displayed during daylight hours when sound signals are in operation. Standby light, Occ. 4 sec. obscured from 080° to 170°. RBN: 302 kHz (— — — —) VI; Antenna at light tower. HORN: 2 blasts ev 20 <sup>s</sup> (2 <sup>bl</sup> -2 <sup>si</sup> -2 <sup>bl</sup> -14 <sup>si</sup> ). 1936	
2007	—Lighted Buoy 3 .....	In 28 feet, at elbow in channel opposite Grays Reef Light.		6		Black .....	Ra ref. Can; winter marker.	
	Fl. W., 4 <sup>s</sup>							
	—Buoy 5 .....	In 32 feet, at east side of south en- trance to channel.				Black can .....	Ra ref. White reflector. Can; winter marker.	
EAST SIDE								
	Ile Aux Galets East End Gong Buoy 2 .....	In 20 feet, on east end of shoal.				Red .....	Ra ref. Red reflector. Nun; winter marker.	
	Ile Aux Galets Bell Buoy 1 .....	In 18 feet, on north- west end of shoal.				Black .....	Ra ref. White reflector. Can winter marker.	
2008	Ile Aux Galets Light .....	On Ile Aux Galets Rock. 45 40.6 85 10.3		12	58	White octagonal tower connected to dwelling.	1850-1886	

## EAST SIDE

## LAKE MICHIGAN, MICHIGAN

(1)	(2)	(3)		(4)	(5)	(6)		(7)
No.	Name	Location		Nominal Range	Ht. above water	Ht. above ground	Structure	Remarks
No.	Characteristic	Lat. N.	Long. W.				Daymark	Year
2009	<i>Beaver Island Shoal Northeast End Lighted Buoy 1.</i> Fl. W., 4 <sup>s</sup>	In 20 feet, south side of passage between Beaver and Garden Islands.			6		Black	Ra ref. White reflector. Can; winter marker.
	Dahlia Shoal Buoy 1	In 30 feet, on southwest end of shoal.					Black can	White reflector. Can; winter marker. Ra ref.
	Hog Island Reef Buoy HI	In 18 feet, off east end of reef.					Black and red horizontal bands; can.	White reflector.
		45 43.5	85 20.4					
BEAVER HARBOR								
	— Buoy 1	In 24 feet.					Black can	Ra ref. White reflector.
	— Buoy 2	45 44.0	85 29.8				Red nun	Ra ref. Red reflector.
		In 30 feet, 4,000 feet 113" from St. James Light.						
2009.70	— Lighted Buoy 4 Fl. R., 4 <sup>s</sup>	In 24 feet					Red	Nun; winter marker.
	— Buoy 6	In 14 feet.					Red nun	Ra ref. Red reflector.
	— Buoy 7	In 14 feet.					Black can	Ra ref. White reflector.
	— Buoy 8	In 14 feet.					Red nun	Ra ref. Red reflector.
2010	ST. JAMES LIGHT Occ. R., 6 <sup>s</sup> (4 <sup>fl</sup> )	On northeast end of Beaver Island.			10	38	White cylindrical tower	Light obscured from 127½ to 199½°. 1856-1870
		45 44.6	85 30.5			41		
EAST SIDE								
2011	<i>Story Point Shoal Lighted Bell Buoy 1.</i> Fl. W., 6 <sup>s</sup>	In 23 feet, on east end of shoal, south side of entrance to Beaver Harbor.			7		Black	Ra ref. Can; winter marker.
2012	Beaver Island Light E. Int. W., 6 <sup>s</sup>	South end of island...			17	138	Red and white horizontally banded skeleton tower.	Emergency light. Aircraft warning lights at 100, 200, and 300 foot levels. 1851-1974
		45 34.6	85 34.4			98		
(Chart 14913)								
2013	LITTLE TRAVERSE LIGHT Fl. G., 7.5 <sup>s</sup>	On Harbor Point, north side of Little Traverse Bay.			14	72	White skeleton tower	1884-1963
		45 25.2	84 58.6			41		
2014	STATE STREET PIERHEAD LIGHT. F. R.	On end of pier				18	Dock	Private aid maintained from Apr. 1 to Dec. 1, 1969
2015	SPRING STREET PIERHEAD LIGHT. F. R.	On end of pier				18	Dock	Private aid maintained from Apr. 1 to Dec. 1, 1969
2016	HARBOR SPRINGS RANGE FRONT LIGHT. F. R.	.....				10	Pile	Private aid maintained from Apr. 1 to Dec. 1, 1969
		45 25.8	84 58.9					
2017	HARBOR SPRINGS RANGE REAR LIGHT. F. R.	000° 240 yards from front light.				30	Pile	Private aid maintained from Apr. 1 to Dec. 1, 1969
2018	WALSTROM MARINE LIGHT 1 Qk. Fl. G.	In 5 feet				5	Black pile structure	Private aid maintained from June 1 to Oct. 1, 1965
2019	WALSTROM MARINE LIGHT 2 Qk. Fl. R.	In 5 feet				5	Red pile structure	Private aid maintained from June 1 to Oct. 1, 1965
2020	PETOSKEY LIGHT Fl. R., 2.5 <sup>s</sup>	Near end of break-water south side of Little Traverse Bay.			5	44	TR on white skeleton tower, concrete base.	1899-1930

## EAST SIDE

## LAKE MICHIGAN, MICHIGAN

(1)	(2)	(3)		(4)	(5)	(6)	(7)			
No.	Name Characteristic	Lat. N.	Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure	Daymark	Remarks	Year
<b>Charlevoix</b> (Chart 14942)										
2021	—NORTH PIERHEAD LIGHT . . . . Fl. W., 4 <sup>s</sup>	Near outer end of pier. 45 19. 3      85 15. 9		11	61		SB on white pyramidal skeleton tower.			1914
2022	—SOUTH PIERHEAD LIGHT F. R.	On outer end of pier ..		12	41		TR on white square tower, upper part inclosed.		HORN: 1 blast every 30 <sup>s</sup> (3 <sup>bl</sup> ). 1858-1948	
	Round Lake Special Anchorage Buoy A.	In 18 feet, south side of anchorage.					White can .....		Ra ref. White reflector.	
	Round Lake Special Anchorage Buoy B.	In 24 feet, south side of anchorage.					White can .....		Ra ref. White reflector.	
	Round Lake Special Anchorage Buoy C.	In 24 feet, south side of anchorage.					White can .....		Ra ref. White reflector.	
2022.50	IRISH BOAT SHOP LIGHT 2..... Occ. R., 3 <sup>s</sup> (2 <sup>bl</sup> )	On end of north breakwater.			12		On red pipe.....		Private aid.	1974
2022.51	IRISH BOAT SHOP LIGHT 1..... F. G.	On end of south breakwater.			6		On green pipe .....		Private aid.	1974
2023	LAKE CHARLEVOIX DOCK NORTH LIGHT. F. W.	Marks end of pier ...				10	White pile .....	36	Private aid.	1964
2024	LAKE CHARLEVOIX DOCK RANGE FRONT LIGHT Qk. Fl. G.	Marks axis of pier ..				10	Orange diamond daymark on pile.		Private aid.	1964
2025	LAKE CHARLEVOIX DOCK RANGE REAR LIGHT. F. G.	Marks axis of pier 461 feet 250 <sup>s</sup> from front light.				20	Orange diamond daymark on pole.		Private aid.	1964
2026	LAKE CHARLEVOIX DOCK SOUTH LIGHT. F. W.	Marks end of pier ...				10	White pile .....		Private aid.	1964
2028	LAKE CHARLEVOIX (SOUTH ARM) NORTH LIGHT. F. R.	In 12 feet .. .. . 45 14. 3      85 10. 7				6	Pile .....		Private aid maintained from May 15 to Oct. 15. 1969	
2029	LAKE CHARLEVOIX (SOUTH ARM) SOUTH LIGHT. F. R.	In 12 feet .. .. .				6	Pile .....		Private aid maintained from May 15 to Oct. 15. 1969	
	Port Medusa Buoy 1 .....	In 24 feet .. .. . 45 20. 1      85 17. 6					Black can .....		Private aid maintained from Mar. 15 to Dec. 15.	
	Port Medusa Buoy 2 .....	In 24 feet .. .. .					Red nun .....		Private aid maintained from Mar. 15 to Dec. 15.	
	Port Medusa Buoy 3 .....	In 24 feet .. .. .					Black can .....		Private aid maintained from Mar 15 to Dec. 15.	
2029.50	MEDUSA CHANNEL BREAK- WATER LIGHT. Fl. R., 4 <sup>s</sup>	On outer end of break- water.				24	Gray pile .....		Private aid maintained from Apr. 15 to Dec. 15.	
<b>EAST SIDE</b> (Chart 14913)										
2030	Charlevoix Lighted Bell Buoy 2. Fl. W., 4 <sup>s</sup>	In 50 feet, off south Point, north of shoal.			7		Red .....		Ra ref. Nun; winter marke	
	Fisherman Island Shoal Buoy 1.....	In 40 feet, on north- west end of shoal.					Black can.....		Ra ref. White reflector. Can; winter marker.	
<b>Grand Traverse Bay</b>										
2031	Grand Traverse Light .....	On Lighthouse Point, west side of entrance to Grand Traverse Bay. 45 12. 6      85 33. 0		24	50		On skeleton tower .....	41		1852-1972

## EAST SIDE

## LAKE MICHIGAN, MICHIGAN

(1)	(2)	(3)		(4)	(5)	(6)		(7)	
No.	Name	Location	Nominal Range	Ht. above water	Ht. above ground	Structure	Daymarks	Remarks	Year
<b>Grand Traverse Bay</b>									
2032	— Shoal Lighted Bell Buoy 3 Fl. G., 4 <sup>s</sup>	In 30 feet, off north- westerly end of shoal.	45 08.1 85 26.4	4	.....	Black	.....	Ra ref. Can; winter marker.	
2033	Northport Point Lighted Bell Buoy 2 Fl. R., 4 <sup>s</sup>	In 30 feet, on south end of shoal, Grand Traverse Bay.	.....	4	.....	Red	.....	Ra ref. Nun; winter marker.	
	Northport Bay Shoal Buoy 4.....	In 20 feet, marks southeast end of shoal.	.....	.....	.....	Red nun	.....	Red reflector.	
	Northport Bay Shoal Buoy 6.....	In 30 feet, marks southwest side of shoal.	.....	.....	.....	Red nun	.....	Red reflector.	
2034	NORTHPORT NORTH LIGHT Qk. Fl. R.	On end of municipal dock.	45 07.8 85 36.7	.....	12	Red post	.....	Visible from 090° to 135°. Private aid maintained from May 15 to Dec 1.	1953
2034.50	NORTHPORT SOUTH LIGHT Qk. Fl. G.	On south breakwater.	.....	.....	14	On pile	.....	Private aid maintained from May 15 to Dec 1.	1974
2035	MISSION POINT LIGHT Fl. W., 6 <sup>s</sup> (1 <sup>st</sup> D)	Northwest of Old Mission Point.	45 01.1 85 30.4	7	52	NR on white skeleton tower	.....	.....	1938
	Omens Mission Point Buoy 2.....	In 14 feet, south- westerly of point.	.....	.....	.....	Red nun	.....	Private aid maintained from May 1 to Nov. 1.	
2036	ELK RAPIDS BREAKWATER LIGHT. Fl. G., 4 <sup>s</sup>	On outer end of breakwater.	44 54.2 85 25.0	.....	16	White pile	.....	Private aid maintained from May 15 to Oct. 15.	1966
2036.50	ELK RAPIDS LIGHT 2.....	On outer end of break- water.	.....	.....	14	On pipe	.....	Private aid maintained from May 15 to Oct. 15.	1974
2036.60	ELK RAPIDS LEADING LIGHT... Qk. Fl. W.	On shore.....	.....	.....	.....	On white skeleton tower	.....	Private aid. Maintained from May 15 to Oct 15.	
2037	SUTTONS BAY MUNICIPAL DOCK LIGHT. Qk. Fl. R.	On end of dock.....	.....	.....	17	White pipe	.....	Private aid maintained from May 1 to Nov. 30.	1965
	Suttons Point Buoy 1.....	In 22 feet, on north end of shoal.	.....	.....	.....	Black can	.....	White reflector.	
2038	Lee Point Lighted Bell Buoy 4... Fl. R., 4 <sup>s</sup>	In 56 feet, on end of shoal southeast of point.	.....	4	.....	Red	.....	Ra ref.	
	Lee Point Shoal Buoy 6.....	In 56 feet off southern extremity of shoal.	.....	.....	.....	Red nun	.....	Red reflector.	
	Tucker Point Buoy 1.....	In 27 feet, on south end of shoal off point.	.....	.....	.....	Black can	.....	White reflector.	
	Marion Island North Shoal Buoy 2..	In 22 feet, on north end of shoal.	.....	.....	.....	Red nun	.....	Red reflector.	
	Marion Island South Shoal Buoy 7..	In 27 feet, on south- west end of shoal.	.....	.....	.....	Black can	.....	White reflector.	
2039	Traverse Beach Lighted Buoy 8... Fl. R., 4 <sup>s</sup>	In 48 feet.....	44 47.6 85 37.3	4	.....	Red	.....	Nun; winter marker.	
2040	TRAVERSE CITY BREAKWATER LIGHT. Fl. R., 6 <sup>s</sup>	On west side of east Harbor-of-Refuge Breakwater.	44 47.3 85 37.9	8	40	TR on white skeleton tower	.....	.....	1951-1966
2041	TRAVERSE CITY WEST BREAK- WATER LIGHT. Fl. G., 4 <sup>s</sup>	On outer end of breakwater.	.....	8	24	SB on white pile	.....	.....	1966

## EAST SIDE

## LAKE MICHIGAN, MICHIGAN

(1)	(2)	(3)		(4)	(5)	(6)	(7)
No.	Name	Lat. N.	Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure
No.	Characteristic	Lat. N.	Long. W.				Daymark
<b>Grand Traverse Bay</b>							
2042	TRAVERSE CITY MARINE LIGHT. E. Int. G., 2 <sup>s</sup>			In 6 feet, marks entrance to marine basin.	10	20	Pile .....
							20
							Private aid maintained from May 1 to Nov. 1, 1957
2043	ARCO LIGHT..... F. G.			On end of dock .....		20	.....
		44 47.0	85 38.2				Private aid. Operated only when vessels are approaching the dock. 1958
2044	LEONARD INC. LIGHT .. F. G.			On end of pier .....	7	20	Pile .....
		44 47.0	85 38.2				Operated only for the arrival and departure of tankers. 1958
2045	DUNCAN L. CLINCH YACHT HARBOR LIGHT. Qk. Fl. G.			On westerly end of breakwater. ....		18	Pile .....
							Private aid maintained from May 1 to Nov. 1, 1942
2046	BOARDMAN RIVER WEST PIERHEAD LIGHT. F. R.			On outer extremity of breakwall at entrance to river. ....		20	White pile .....
		44 45.9	85 36.6				Private aid. 1951
2046.50	GREAT LAKES MARITIME ACADEMY WEST PIER LIGHT. Qk. Fl. G.			.....		13	On pile .....
							Private aid maintained from Apr. 1 to Nov. 30.
2046.51	GREAT LAKES MARITIME ACADEMY EAST PIER LIGHT. Qk. Fl. R.			.....		13	On pile .....
							Private aid maintained from Apr. 1 to Nov. 30.
EAST SIDE							
(Chart 14912)							
	South Fox Island Shoals Buoy 3 ...			In 24 feet, marks the south limit of the passage through the South Fox Island Shoals. ....			Black can.....
							White reflector.
	South Fox Island Shoals Buoy 4 ...			In 20 feet, marks the north limit of the passage through the South Fox Island Shoals. ....			Red nun .....
							Red reflector.
2047	South Fox Island Shoals Lighted Buoy 2 Fl. W., 4 <sup>s</sup>			In 34 feet, marks the south limit of South Fox Island Shoals. ....	6		Red .....
							Ra ref. Nun; winter marker.
2048	LELAND HARBOR LIGHT 1 .....			On south end of detached breakwater. at entrance to Leelanau Lake. ....	8	25	SG on white column .....
		45 01.4	85 45.8				1940
2049	LELAND HARBOR LIGHT 2 .....			On outer end of south pier. ....	6	25	TR on white column .....
2050	North Manitou Shoal Light .....			In 21 feet, on south end of shoals. ....	23	79	White square structure on concrete base. ....
		45 01.2	85 57.4				Winter light, Fl., 4 <sup>s</sup> RBN: 298 kHz (*) I. Antenna at light tower. HORN: 2 blasts ev 20 <sup>s</sup> (2 <sup>s</sup> bl-2 <sup>s</sup> si-2 <sup>s</sup> bl-14 <sup>s</sup> si). 1935
	Pyramid Point Shoal Buoy 5 .....			In 30 feet, on north end of shoal. ....			Black can.....
							Ra ref. White reflector. C <sub>25</sub> ; winter marker.
	North Manitou Shoal Southwest End Buoy 6.			In 20 feet .....			Red nun .....
							Red reflector.
2051	South Manitou Island Shoal Lighted Gong Buoy 8. Fl. R., 4 <sup>s</sup>			In 100 feet, marks shoal southwest of island. ....	5		Red .....
		44 57.5	86 10.1				Ra ref. Nun; winter marker.

## EAST SIDE

## LAKE MICHIGAN, MICHIGAN

(1)	(2)	(3)		(4)	(5)	(6)	(7)
No.	Name Characteristic	Lat. N.	Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure Daymark Remarks Year
2052	<i>Sleeping Bear Lighted Bell Buoy 7.</i> Fl. W., 4 <sup>s</sup>  (Chart 14907)	In 40 feet, off Sleeping Bear Point. 44 54.1	86 10.0		6	Black	Ra ref. Can; winter marker.
2053	<i>Point Betsie Light</i> Fl. W., 10 <sup>s</sup>	On point 44 41.5	86 15.3		24	52 White, red roofs, cylindrical tower connected to dwelling. 37	RBN: 298 kHz (same) II. Antenna 190 feet 035" from light tower. 1858
<b>Frankfort</b>							
2055	<i>North Breakwater Light</i> F. W.	On outer end of north breakwater. 44 37.8	86 15.0		18	72 White square pyramidal tower ... 67	MKR RBN: 288 kHz; Antenna 1,785 feet 093" from light tower. HORN: 1 blast ev 30 <sup>s</sup> (3 <sup>bl</sup> ). 1873-1932 1930
2056	<i>SOUTH BREAKWATER LIGHT.</i> Fl. R., 4 <sup>s</sup>	Near outer end of south breakwater.			5	70 Red tubular mast on pyramidal skeleton tower.	
2057	<i>NORTH PIERHEAD LIGHT</i> F. G.	On end of north head.			9	37 SG on white pyramidal skeleton tower.	Higher intensity beam down entrance channel. HORN: 2 blasts ev 20 <sup>s</sup> (2 <sup>bl</sup> -2 <sup>si</sup> -2 <sup>bl</sup> -14 <sup>si</sup> ). Operates continuously. 1896-1932
2058	<i>SOUTH PIER LIGHT</i> F. R.	On end of south pier..			9	30 TR on red skeleton tower .....	Higher intensity beam on bearing 102° diminishing around remainder of horizon 1928-1934
2060.10	<i>Arcadia Entrance Lighted Buoy 2.</i> Fl. R., 4 <sup>s</sup>	In 20 feet 44 28.9	86 15.2		6	Red	Ra ref.
<b>Portage Lake (Chart 14939)</b>							
2061	<i>NORTH PIERHEAD LIGHT...</i> Fl. W., 4 <sup>s</sup>	On north pier..... 44 21.5	86 16.2		7	44 SG on white skeleton tower on concrete base. 32	1891-1930
2061.51	<i>SOUTH PIERHEAD LIGHT</i> Fl. R., 4 <sup>s</sup>	202', 410 feet from pierhead light.			6	27 TR on pile .....	1971
2062	<i>INNER LIGHT</i> Fl. W., 6 <sup>s</sup>	107.5', 2, 180 feet from pierhead light.			7	17 TR on skeleton tower .....	1970 skeleton tower.
<b>Mosistee (Chart 14938)</b>							
2063	<i>NORTH PIERHEAD LIGHT</i> E. Int. W., 6 <sup>s</sup>	On outer end of north pier. 44 15.1	86 20.8		15	55 White cylindrical tower .....	HORN: 1 blast ev 30 <sup>s</sup> (3 <sup>bl</sup> ). Activated during periods of poor visibility (3 miles or less) from May 30 to Sept. 30. Remainder of season as necessary excluding Sat., Sun., and Holidays or cessa- tion of traffic each winter. 1875-1927 1915
2064	<i>SOUTH BREAKWATER LIGHT.</i> Fl. R., 4 <sup>s</sup>	On outer end of south breakwater.			5	45 TR on white skeleton tower ...	1915

## EAST SIDE

## LAKE MICHIGAN, MICHIGAN

(1)	(2)	(3)		(4)	(5)	(6)	(7)
No.	Name Characteristic	Lat. N.	Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure Daymark Remarks Year
<b>Manistee</b>							
2065	— SOUTH PIERHEAD LIGHT ..... E. Int. R., 6 <sup>s</sup>	On outer end of pier ..		5	24	TR on white skeleton tower on concrete base.	Higher intensity beam on bearing 119° diminishing around remainder of horizon. 1949
2066	— Lake Lighted Buoy 1 .....	In 25 feet, on easterly side of channel, leading to coal dock.		6	....	Black .....	Can, winter marker.
	— Lake Buoy 2 .....	In 25 feet .....		....	....	Red nun .....	Red reflector.
	— Lake Buoy 3 .....	In 40 feet .....		....	....	Black can .....	White reflector.
	— Lake Buoy 5 .....	In 43 feet .....		....	....	Black can .....	White reflector.
	— Lake Buoy 6 .....	In 45 feet .....		....	....	Red nun .....	Red reflector.
	— Lake Buoy 8 .....	In 30 feet .....		....	....	Red nun .....	Red reflector.
	— Lake Buoy 9 .....	In 36 feet .....		....	....	Black can .....	White reflector.
	— Lake Buoy 10 .....	In 44 feet .....		....	....	Red nun .....	Red reflector.
(Chart 14907)							
2067	Big Sable Light .....	On Big Sable Point ..		19	106	Conical tower, middle third and top black, remainder, white dwelling attached. 107	Obscured from 238° to 246°, 186 7
<b>Ludington</b> (Chart 14937)							
2068	— North Breakwater Light .....	On breakwater, near outer end. 43 57.2 86 28.2		19	55	White square pyramidal tower.. 57	RBN: 308 kHz (=====) V. Antenna 2,230 feet 093° from light tower. HORN: 2 blasts ev 20 <sup>s</sup> (2 <sup>s</sup> bl-2 <sup>s</sup> si-2 <sup>s</sup> bl-14 <sup>s</sup> si) Structure is floodlighted from sunset to sunrise - 1870-1924
2069	— NORTH PIERHEAD LIGHT .... F. G.	On pier, 30 feet from outer end, 1,840 feet 098° from front light.		9	26	SG on white column .....	SIREN: 1 blast ev 30 <sup>s</sup> (3 <sup>s</sup> bl). 1924-1968
2070	— SOUTH BREAKWATER LIGHT . Fl. R., 2.5 <sup>s</sup>	On northwest end of breakwater.		6	48	TR on red skeleton tower .....	1909-1935
2071	— SOUTH PIERHEAD LIGHT .... Fl. R., 4 <sup>s</sup>	On pier .....		5	40	TR on white skeleton tower ....	1870-1925
<b>PERE MARQUETTE LAKE</b>							
2072	— LIGHT .....	On bend of south pier.		4	20	TR on white cylindrical post ...	1920-1947
	— Buoy 1 .....	In 42 feet .....		....	....	Black can .....	White reflector.
	— Buoy 3 .....	In 16 feet .....		....	....	Black can .....	White reflector.
	— Buoy 5 .....	In 16 feet .....		....	....	Black can .....	White reflector.
	— West Buoy 2 .....	In 42 feet, marks submerged piling.		....	....	Red nun .....	Red reflector.

## EAST SIDE

## LAKE MICHIGAN, MICHIGAN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water	(6) Ht. above ground Structure Daymark	(7) Remarks Year
(Chart 14907)						
CONSUMER POWER COMPANY						
2072.1A	—Lighted Obstruction Buoy 3 Ok. Fl. W.	In 25 feet			Black	Ra ref. Green reflector. Private aid maintained from May 1 to Nov. 1.
2072.2C	—Lighted Obstruction Buoy 1 Ok. Fl. W.	In 25 feet			Black	Ra ref. Green reflector. Private aid maintained from May 1 to Oct. 1.
2072.3A	—Lighted Obstruction Buoy 5 Ok. Fl. W.	In 25 feet			Black	Ra ref. Green reflector. Private aid maintained from May 1 to Oct. 1.
2072.4C	—Lighted Obstruction Buoy 7 Ok. Fl. W.	In 25 feet			Black	Ra ref. Green reflector. Private aid maintained from May 1 to Oct. 1.
	—Warning Buoys 4 through 28	In 10 to 35 feet, Buoy 1 in 43 53.0 86 27.0			White with orange diamond worded "KEEP OUT".	Private aids. Buoys 230 feet apart 100 feet off breakwall. Maintained from May 1 to Oct. 1. 1976
2072.5D	PENTWATER NORTH PIERHEAD LIGHT 3. Fl. G., 2.5 <sup>s</sup>	On west end of north pierhead.		5	28 SG on pile	1976
2073	PENTWATER SOUTH PIERHEAD LIGHT 4. Gp. Fl. W., 5 <sup>s</sup> 2 flashes.	On south pier, 28 feet from outer end. 43 47.0 86 26.7		9	48 TR on red skeleton tower 34	1873-1937
	Pentwater Entrance Buoy 1	In 7 feet			Black can	White reflector.
	Novadoc Wreck Buoy WR1	In 12 feet, 200 feet west of the last reported position of wreck. 43 41.9 86 31.1			Black can	Ra ref. White reflector. Mariners should not attempt to pass between buoy and shore line.
2074	Little Sable Light Fl. W., 20 <sup>s</sup> (5 <sup>h</sup> fl)	On Little Sable Point. 43 39.2 86 32.4		19	108 Red brick conical tower. 107	1874
White Lake (Chart 14935)						
2075	—NORTH PIERHEAD LIGHT 1 Fl. G., 10 <sup>s</sup>	On pierhead		15	25 SG on white column	1960
2076	—SOUTH PIERHEAD LIGHT 2 Fl. R., 4 <sup>s</sup>	On outer end of south pier at entrance to White Lake.		5	43 TR on red skeleton tower, on concrete base. 31	1872-1930
2077	—PIERHEAD INNER LIGHT 4 F. R.	On inner end of south pier.		8	30 TR on skeleton tower	Red reflector. 1938
2078	—Lighted Buoy 5 Fl. G., 4 <sup>s</sup>	In 20 feet, on south- west point of shoal, White Lake.		5	Black	Can; winter marker.
2079	—Lighted Buoy 7 Fl. G., 2.5 <sup>s</sup>	In 20 feet, on south side of shoals.		5	Black	Can; winter marker.
2079.10	—Lighted Buoy 9 Fl. G., 6 <sup>s</sup>	In 18 feet		5	Black	Can; winter marker.
2079.20	—Lighted Buoy 10 Fl. R., 4 <sup>s</sup>	In 20 feet		4	Red	Nun; winter marker.
2079.30	—Lighted Buoy 12 Fl. R., 2.5 <sup>s</sup>	In 14 feet		4	Red	Nun; winter marker.
2079.40	—Lighted Buoy 13 Fl. G., 4 <sup>s</sup>	In 10 feet		4	Black	Nun; winter marker.
	Chalmers Marina Buoy 1	In 3 feet			Black spar with flag.	Private aid maintained from May 1 to Oct. 1.
	Chalmers Marina Buoy 2	In 3 feet			Red spar with flag.	Private aid maintained from May 1 to Oct. 1.

## EAST SIDE

## LAKE MICHIGAN, MICHIGAN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water ground	(6) Structure Daymark	(7) Remarks Year
<b>Muskegon</b> (Chart 14934)						
2080	— South Breakwater Light ..... Fl. R., 5 <sup>s</sup>	On lakeward end of south breakwater. 43 13.5 86 20.8		14 70	Red pyramidal tower ..... 53	RBN: 298 kHz (m s m s) IV. Antenna at South Pier- head Light 1, 815 feet 060° from breakwater light. HORN: 2 blasts ev 30 <sup>s</sup> (2 <sup>bl</sup> -2 <sup>bl</sup> -2 <sup>bl</sup> -24 <sup>si</sup> ). 1928-1929
2081	— SOUTH PIERHEAD LIGHT .... Occ R., 6 <sup>s</sup> (4 <sup>bl</sup> )	On outer end of pierhead.		13 50	Red conical tower ..... 48	HORN: 1 blast ev 15 <sup>s</sup> (2 <sup>bl</sup> ). 1852-1903 1931
2082	— NORTH BREAKWATER LIGHT. Fl. W., 4 <sup>s</sup>	On end of breakwater.		6 53	SG on skeleton tower, concrete base.	
2083	— NORTH PIER OUTER LIGHT .. Fl. G., 4 <sup>s</sup>	On outer end of pier..		5 20	SG .....	Higher intensity beam on bearing 058° dimi- nishing remainder of horizon. 1960 1960
2084	— NORTH PIER INNER LIGHT .. Fl. G., 4 <sup>s</sup>	On inner end of pier..		4 20	SG .....	
2085	— LAKE LIGHT .....	On inner end of south pier.		9 24	TR on red pyramidal skeleton tower on concrete base.	Higher intensity beam on bearing 280° diminishing around remainder of horizon. HORN: 1 blast ev 30 <sup>s</sup> (3 <sup>bl</sup> ). 1895-1925 Green reflector.
	Muskegon Lake Buoy 3 .....	In 7 feet, marks SE corner of submerged barge.			Black can .....	
2086	— YACHT CLUB DOCK LIGHT ... F. G.	At center of dock .... 43 13.2 86 19.3		9 18	White pipe frame stand .....	Private aid. 1954
2087	LAKE MUSKEGON RANGE FRONT LIGHT. F. R.	43 13.0 86 18.5			26 KBW on pile .....	Private aid. 1956
2088	LAKE MUSKEGON RANGE REAR LIGHT. F. R.	200 feet 174° from front light.			29 KBW on pile .....	Private aid. 1956
2089	GRAND TRUNK CAR FERRY SLIP RANGE FRONT LIGHT. F. R.	43 13.2 86 17.8			30 On pile .....	SIREN: 1 blast ev 13 <sup>s</sup> (3 <sup>bl</sup> ). Private aid. 1934
2090	GRAND TRUNK CAR FERRY SLIP RANGE REAR LIGHT. F. R.	435 feet 179° from front light.			85 On skeleton tower .....	Private aid. 1934
	— Buoy 2 .....	In 4 feet .....			Red sun .....	Red reflector.
2091	BEAR LAKE ENTRANCE WEST LIGHT. F. W.	On west side of entrance. 43 14.4 86 17.9			8 SB on wood piling ..... 6	Private aid maintained from Apr. 1 to Nov. 1. 1957
2092	BEAR LAKE ENTRANCE EAST LIGHT. F. R.	On east side of entrance.			8 TR on pile .....	Private aid maintained Apr. 1 to Nov. 1. 1957
2093	BEAR LAKE CHANNEL LIGHT .. Qk. Fl. G.	On point, west side of channel.			6 On pile .....	Private aid maintained from May 1 to Sept. 30. 1960
2094	BANK POINT LIGHT .....	In 9 feet, on south point of shoal.		7 24	SG on skeleton tower, small house at base, on concrete pier. 15	1901-1915
2095	— HARTSHORN LIGHT .....	In 3 feet, on northerly end of shoal.		4 15	TR on column .....	1923-1973
2096	— MUNICIPAL MARINA PIER LIGHT. F. R.	On outer end of pier ..			4 Gray pile .....	Private aid maintained from Mar. 1 to Dec. 1. 1964

## EAST SIDE

## LAKE MICHIGAN, MICHIGAN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Hr. above water	(6) Structure Hr. above ground Daymark	(7) Remarks Year
<b>Muskegon</b>						
2097	—MUNICIPAL MARINA NORTH LIGHT. E. Int. G., 20 <sup>s</sup>	On end of east pier		15	Black tripod structure	Private aid maintained from Mar. 1 to Dec. 1.
2098	—MUNICIPAL MARINA SOUTH LIGHT. E. Int. R., 20 <sup>s</sup>	On end of west pier		15	Red tripod structure	Private aid maintained from Mar. 1 to Dec. 1. 1959
2099	—MUNICIPAL MARINA RANGE LIGHT. F. R. Bultema Channel Buoy 2, 4	On shore at the bend of marina. In 21 feet, marks private channel.		18	Yellow pile Spheres	Private aid maintained from Mar. 1 to Dec. 1. 1964
2100	Continental Motors Intake Lighted Buoy 2 Fl. R., 3 <sup>s</sup>	In 13 feet, north side of intake crib.			Red	Private aid maintained from Feb. 1 to Nov. 1. Private aid.
2101	CONSUMERS POWER COMPANY LIGHT 1. E. Int. G., 2 <sup>s</sup>	On coal dock piling, at eastern end of Lake Muskegon. 43 15.1 86 15.0		4		Private aid. 1949
2102	CONSUMERS POWER COMPANY LIGHT 3. E. Int. G., 2 <sup>s</sup>	On coal unloading crane.		55	50	Private aid maintained from Mar. 1 to Dec. 15. 1956
<b>Grand Haven (Chart 14933)</b>						
2103	—SOUTH PIERHEAD ENTRANCE LIGHT. F. R.	On outer end of south pier. 43 03.5 86 15.4		10	42 Red fog signal building 36	MKR RBN: 316 kHz. Antenna at light tower. HORN: 2 blasts ev 30 <sup>s</sup> (2 <sup>bl</sup> -2 <sup>ai</sup> -2 <sup>bl</sup> -24 <sup>ai</sup> ). 1871-1922 1839-1905
2104	—South Pierhead Inner Light F. Fl. R., 30 <sup>s</sup> (1 <sup>ai</sup> )	600 feet 080°08' from front light.	14F	52	Red cylindrical tower 51	1839-1905
2105	—NORTH PIERHEAD LIGHT Fl. W., 4 <sup>s</sup>	On outer end of pier.		8	36 SG on white skeleton tower, concrete base. 32	1911-1921
<b>GRAND RIVER</b>						
2106	—Lighted Buoy 1 Fl. W., 4 <sup>s</sup>	In 24 feet		6	9 Black	Can; winter marker.
2107	—Lighted Buoy 4 Fl. R., 4 <sup>s</sup>	In 21 feet		4	Red	Nun; winter marker.
2108	—Buoy 6 —Lighted Buoy 8 Fl. R., 4 <sup>s</sup>	In 21 feet In 19 feet			Red nun Red	Red reflector. Nun; winter marker.
	—Buoy 9 —Buoy 10 —Turning Basin Buoy 12 Spring Lake Buoy 2	In 21 feet In 21 feet In 20 feet In 23 feet, off Prospect Point.			Black can Red nun Red nun Red nun	Green reflector. Red reflector. Red reflector. Red reflector.
	Spring Lake Buoy 3 — Junction Buoy	In 23 feet, off Cornelius Bayou. Marks 6 feet contour.			Black can Red and black horizontal bands; nun.	Green reflector.
	—Baos 14, 15, 15A, 15B, 16, 17, 18, 19, 20, 21, 23, 25, 26, 27, 29, 31, 32.	Marks 6 feet contour.			Odd numbered, black can; even numbered, red nun.	Odd numbered, green reflector, even numbered, red reflector. The buoy in the Grand River upstream of the Grand Haven - Ferrysburg Bridge may be relocated as necessary, without prior notice, to mark the 6-foot contours.

## EAST SIDE

## LAKE MICHIGAN, MICHIGAN

(1)	(2)	(3)		(4)	(5)	(6)	(7)
No.	Name Characteristic	Location Lat. N. Long. W.		Nominal Range	Ht. above water	Ht. above ground	Structure Daymark Remarks Year
<b>GRAND RIVER</b>							
	— Buoy 33, 35, 36, 37, 38, 39, 40, 40A, 41, 42, 44, 45, 46, 47, 48, 49, 50, 51, 53, 54, 56, 58, 60, 61, 62, 63, 64, 65, 67, 69, 70, 72, 74, 76.	Marks 6 feet contour.		.....	....	Odd numbered, black can; even numbered, red sun.	Odd numbered, white reflector; even numbered, red reflector. The buoys in Grand River up- stream of the Grand Haven - Ferrysburg Bridge may be relocated as necessary, without prior notice, to mark the 6-foot contours. Orange reflector.
	— Warning Daybeacon .....	On small island .....		.....	....	White diamond daymark on pile worded "Danger-End of Dredged Channel".	Orange reflector.
<b>Grand Haven (Chart 14906)</b>							
2111	PORT SHELTON BREAKWATER NORTH LIGHT. Fl. G., 4 <sup>s</sup>	On end of jetty .....		.....	14	Column .....	Private aid maintained from Apr. 1 to Nov. 30, 1961
2112	PORT SHELTON BREAKWATER SOUTH LIGHT. Fl. R., 4 <sup>s</sup>	On end of jetty .....		.....	14	Column .....	Private aid maintained from Apr. 1 to Nov. 30, 1961
<b>Holland Harbor (Chart 14932)</b>							
2113	— NORTH BREAKWATER LIGHT .. Fl. W., 5 <sup>s</sup>	On breakwater near outer end.		.....	18	45 SG on white skeleton tower on 4 cylinders. 38	Obscured 190° to 250°. HORN: 1 blast ev 30' (3%). 1932
2114	— SOUTH BREAKWATER LIGHT .. Fl. R., 4 <sup>s</sup>	On outer end of south breakwater. 42 46.4 86 12.9		.....	5	45 TR on white skeleton tower .... 38	1907-1933
2115	— NORTH PIERHEAD LIGHT .... Fl. G., 4 <sup>s</sup>	On end of north pier ..		.....	5	25 SG on white column .....	1963
2116	— SOUTH PIERHEAD LIGHT .....	On outer end of south pier, 885 feet 086½" from front light.		.....	5	52 Red square tower, on red building. 45	1907-1936
<b>LAKE MACATAWA</b>							
2117	— LIGHT .....	On south pier at entrance to lake.		.....	5	24 TR on white column .....	Not visible westward. 1928-1967
2118	— Lighted Buoy 1 .....	In 21 feet .....		.....	6	.... Black .....	Can; winter marker.
2119	— SKI JUMP LIGHT .....	In 10 feet .....		.....	10	Red, white and blue wood structure.	Private aid maintained from 1 May to 31 Oct.
	Ok. Fl. W.	42 46.6 86 11.9		.....	.....	Black can .....	White reflector.
	Big Bay Buoy 1 .....	In 27 feet .....		.....	.....	Red sun .....	Red reflector.
	Big Bay Buoy 2 .....	In 14 feet .....		.....	.....	Black can .....	White reflector.
	Big Bay Buoy 3 .....	In 17 feet .....		.....	.....	.....	.....
2120	MIDDLE GROUND LIGHT 3 .....	On southeast point of shoal.		.....	8	23 SG on white column on cylindri- cal concrete base. 18	1909-1967
2121	DRAKE POINT LIGHT 4 .....	On point of shoal ....		.....	6	23 TR on white column on cylindri- cal concrete base. 18	1909-1967
	— Buoy 5 .....	In 21 feet .....		.....	.....	Black can .....	White reflector.
2122	— Lighted Buoy 6 .....	In 18 feet .....		.....	4	.... Red .....	Nun; winter marker.
	Fl. R., 4 <sup>s</sup>						

## EAST SIDE

## LAKE MICHIGAN, MICHIGAN AND INDIANA

(1)	(2)	(3)		(4)	(5)	(6)	(7)			
No.	Name	Location		Nominal Range	Ht. above water	Ht. above ground	Structure	Daymark	Remarks	Year
LAKE MACATAWA										
2123	POINT SUPERIOR LIGHT 7 Fl. W., 4 <sup>s</sup>	Off point			8	23	SG on white column on cylindrical concrete base.			1909-1922
	— Buoy 9	In 21 feet					18 Black can		White reflector.	
2124	— Lighted Buoy 10 Fl. R., 4 <sup>s</sup>	In 18 feet, marks turn.			4		Red		Nun; winter marker.	
	— Buoy 11	In 16 feet					Black can		White reflector.	
	— Buoy 13	In 19 feet					Black can		White reflector.	
2125	— Lighted Buoy 14 Fl. R., 4 <sup>s</sup>	In 18 feet			4		Red		Nun; winter marker.	
	— Buoy 15	In 16 feet					Black can		White reflector.	
2126	— Lighted Buoy 16 Fl. R., 4 <sup>s</sup>	In 21 feet			4		Red		Nun; winter marker.	
	— Buoy 17	In 15 feet					Black can		White reflector.	
2127	— Lighted Buoy 19 Fl. W., 4 <sup>s</sup>	In 18 feet			6		Black			
	— Buoy 21	In 21 feet					Black can		White reflector.	
	— Buoy 23	In 21 feet					Black can		White reflector.	
	— Buoy 25	In 21 feet					Black can		White reflector.	
	— Buoy 26	In 21 feet					Red nun		Red reflector.	
Saugatuck (Chart 14906)										
2128	— SOUTH PIERHEAD LIGHT Fl. W., 4 <sup>s</sup>	On outer end of pier 42 40.6 86 12.9			9	31	TR on white square column on pedestal.		HORN: 1 blast ev 15 <sup>s</sup> (2 <sup>bl</sup> ). Operates continuously.	1907-1940
2129	— NORTH PIERHEAD LIGHT Fl. G., 4 <sup>s</sup>	On end of pierhead			6	25	SG on white column			
	— Marine Buoys 1, 2, 3, 4, 5, 6	In 4 to 8 feet					Odd numbered, black can; even numbered, red nun.		Odd numbered, white reflector; even numbered, red reflector. Private aid maintained from Apr. 1 to Dec. 1.	
KALAMAZOO RIVER										
	— Buoy 2	In 16 feet					Red nun		Red reflector.	
	— Buoy 4	In 16 feet					Red nun		Red reflector.	
	— Buoy 5	In 8 feet					Black can		White reflector.	
	— Buoy 6	In 16 feet					Red nun		Red reflector.	
	— Buoy 8	In 16 feet					Red nun		Red reflector.	
	— Buoy 9	In 8 feet					Black can		White reflector.	
	— Buoy 11	In 8 feet					Black can		White reflector.	
	— Buoy 12	In 17 feet					Red nun		Red reflector.	
	— Buoy 14	In 16 feet, at entrance to Kalamazoo Lake.					Red nun		Red reflector.	
	Saugatuck Harbor Old Channel Buoy 1.	In 7 feet, marks southern pierhead of old channel. 42 39.9 86 13.0					Black can		White reflector.	
South Haven										
2130	— SOUTH PIERHEAD LIGHT F. R.	On south pier, 30 feet from outer end. 42 24.1 86 17.3			10	37	Red conical tower		HORN: 2 blasts ev 30 <sup>s</sup> (2 <sup>bl</sup> -2 <sup>bl</sup> -2 <sup>bl</sup> -24 si). Operates 6:00 A. M. to 11:00 P. M. when visibility less than 2 miles from Apr. 1 to Dec. 1.	1872-1913

## EAST SIDE

## LAKE MICHIGAN, MICHIGAN

(1)	(2)	(3)		(4)	(5)	(6)	(7)		
No.	Name	Location	Nominal Range	Ht. above water	Ht. above ground	Structure	Daymark	Remarks	Year
No.	Characteristic	Lat. N.	Long. W.						Year
<b>South Haven</b>									
2131	— NORTH PIER LIGHT .....	On outer end of pier..		6	28	SG on white skeleton tower ....			1989
	Fl. W., 4 <sup>s</sup>								
<b>St. Joseph (Chart 14930)</b>									
2132	— NORTH PIERHEAD LIGHT ...	On outer end of north pier.		15	31	White cylindrical tower .....		HORN: 1 blast ev 30 <sup>s</sup>	
	F. W.	42 06.9	86 29.7		30			(3 <sup>bl</sup> ), 1846-1977	
2133	— NORTH PIER INNER LIGHT ..	315 feet 108 <sup>s</sup> from front light.		16	53	White octagonal tower attached to fog signal building.			1898-1908
	F. W.				53				
2134	— SOUTH PIERHEAD LIGHT ....	On pier, near outer end.		6	53	TR on red skeleton tower, concrete base.			1950
	E. Int. R., 6 <sup>s</sup>				48				
<b>New Buffalo (Charts 14905)</b>									
2134.71	— HARBOR LIGHT 1 .....	On outer end of North Breakwater.		6	25	SG on column .....			1925
	Fl. G., 4 <sup>s</sup>	41 48.1	86 45.0						
2134.72	— HARBOR LIGHT 2 .....	On outer end of South Breakwater		6	25	TR on column .....			1977
	Fl. R., 4 <sup>s</sup>								
<b>SOUTH END</b>									
<b>Michigan City (Chart 14905)</b>									
2135	— East Pierhead Light .....	On pier near outer end.		16	55	White, red roof, octagonal tower attached to fog signal building.		HORN: 2 blasts ev 20 <sup>s</sup>	
	E. Int. W., 2 <sup>s</sup>	41 43.7	86 54.7		49			(2 <sup>bl</sup> -2 <sup>ai</sup> -2 <sup>bl</sup> -14 <sup>ai</sup> ), 190	
2136	— BREAKWATER LIGHT .....	On north end of breakwater.		6	36	TR on white pyramidal structure.			1904-1911
	Fl. R., 4 <sup>s</sup>				32				
2137	— BREAKWATER SOUTH LIGHT ..	On southerly end of outer breakwater.		6	33	SG on pile .....			1941-1974
	Fl. W., 4 <sup>s</sup>								
2138	— WEST PIERHEAD LIGHT .....	On pier, near outer end.		6	41	TR on white tower .....			1904-1931
	Fl. R., 6 <sup>s</sup>								
2139	— OUTER BASIN LIGHT .....	South side of entrance to Outer Basin.		9	25	SG on white pile .....			1941
	F. G.								
2140	BAILEYTOWN WATER INTAKE CRIB LIGHT.	In 21 feet, marks water intake.				Skeleton tower .....		Private aid maintained from Apr. 1 to Dec. 1	1962
	Qk. Fl. W.	41 38.9	87 07.4						
<b>BURNS HARBOR</b>									
2141	— EAST LIGHT .....	On northeast corner of breakwater.			22			Private aid.	1968
	Fl. W., 2 <sup>s</sup>								
	NIPSCO Monitoring Buoys A, B, C, D, E.	In 12 to 19 feet .....				Orange and white horizontal bands.		White reflector. Private aid maintained from Mar. 15 to Nov. 1.	1973-1974
2142.50	— NORTH LIGHT 2 .....	On outer end of breakwater.		6	36	TR on pile .....			1974
	Fl. R., 2.5 <sup>s</sup>								
2143.50	— SOUTH LIGHT 3 .....	On outer end of breakwater.		5	37	SG on pile .....			1974
	Fl. G., 4 <sup>s</sup>								
2144.50	— WEST LIGHT 4 .....	On breakwater .....		8	36	TR on pile .....			1973-1974
	Fl. W., 2.5 <sup>s</sup>								

## SOUTH END

## LAKE MICHIGAN, INDIANA AND ILLINOIS

(1)	(2)	(3)		(4)	(5)	(6)	(7)			
No.	Name Characteristic	Lat. N.	Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure	Daymark	Remarks	Year
<b>BURNS HARBOR</b>										
2144.60	BURNS WATERWAY EAST JETTY NORTH LIGHT. Fl. W., 2 <sup>s</sup>	At mouth of Burns Ditch. 41 38.1 87 10.5		.....	18	.....	.....	.....	Private aid.	1975
2144.70	BURNS WATERWAY EAST JETTY SOUTH LIGHT. Fl. W., 2 <sup>s</sup>	At shoreward end of jetty mouth of Burns Ditch.		.....	18	.....	.....	.....	Private aid.	1975
2145	BURNS WATERWAY WEST PIER LIGHT. F. R.	On outer end of pier ..		.....	12	Mast	.....	.....	Private aid.	1962
2146	BURNS WATERWAY EAST PIER LIGHT. F. W.	On outer end of pier ..		.....	12	Mast	.....	.....	Private aid.	1962
2147	BURNS WATERWAY WEST PIER INNER LIGHT. F. W.	On inner end of pier ..		.....	12	Mast	.....	.....	Private aid.	1962
2148	Indiana Shoal Lighted Gong Buoy 2. Fl. W., 4 <sup>s</sup>	In 42 feet, on north- east end of shoals. 41 43.4 87 20.9		.....	6	Red	.....	.....	Ra ref.	
<b>Gery (Chart 14927)</b>										
2149	—BULKHEAD LIGHT .....	On east end of bulk- head. 41 37.4 87 17.3		.....	20	Red pipe	.....	.....	Private aid maintained from Apr. 1 to Dec. 15, 1968	
2150	—Breakwater Light .....	On end of breakwater. 41 37.8 87 19.2		.....	16	40	Red cylindrical tower	.....	HORN: 1 blast ev 30 <sup>s</sup> (2%bl). Standby light. Private aid. 1911-1931	
	— Buoy 1 .....	In 24 feet marks edge of shoal.		.....	.....	.....	Black metal drum with tripod	.....	Private aid.	
2151	—EAST PIERHEAD LIGHT .....	On outer end of pier .. 41 37.5 87 19.4		.....	30	.....	Grey "H" beam standard	.....	Private aid maintained from Apr. 1 to Dec. 15, 1908	
2152	—WEST PIERHEAD LIGHT .....	On outer end of pier ..		.....	25	.....	Red pipe standard	.....	Private aid.	1908-1931
<b>Buffington</b>										
2153	—BREAKWATER LIGHT .....	At east end of north breakwater. 41 38.8 87 24.6		.....	14	48	Red conical tower on concrete base.	.....	Private aid.	1926
2154	—PIERHEAD LIGHT .....	Near easterly end of south pier.		.....	11	48	Gray square skeleton tower on concrete base.	.....	DIAPHONE: 1 blast ev 10 <sup>s</sup> (1%bl). Private aid.	1927-1936
2155	—HARBOR RANGE FRONT LIGHT. F. G.	On wharf .....		.....	8	42	Black and red rectangular day- mark on a grey steel column.	.....	Private aid.	1927-1936
2156	—HARBOR RANGE REAR LIGHT. F. G.	1,000 feet 236% <sup>s</sup> from front light.		.....	7	61	Black and red rectangular day- mark on a grey building.	.....	Light shows V-shape. Private aid. 1927-1936	
<b>SOUTH END</b>										
2157	INDIANA HARBOR BOAT CLUB SOUTH LIGHT. F. G.	On end of breakwater		.....	16	.....	On black pile	.....	Private aid maintained from Apr. 1 to Nov. 1, 1966	
2158	INDIANA HARBOR BOAT CLUB NORTH LIGHT. F. R.	On end of breakwater		.....	16	.....	On black pile	.....	Private aid maintained from Apr. 1 to Nov. 1, 1966	

## SOUTH END

## LAKE MICHIGAN, ILLINOIS

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water	(6) Structure Ht. above ground Daymarks	(7) Remarks Year
2159	INDIANA HARBOR SOUTH BULKHEAD LIGHT. F. R.	172.5°, 7,300 feet from Indiana Harbor North Bulkhead light. Marks bend in bulkhead. 41 39.6 87 25.2	.....	49	White pyramidal tower .....	Private aid.
	Indiana Harbor (Chart 14929)					
2160	—EAST BULKHEAD LIGHT .....	On east corner of bulkhead.	.....	6 48	Red pyramidal tower .....	Private aid. 1935-1957
2161	—NORTH BULKHEAD LIGHT ...	On north corner of bulkhead.	.....	48	Red pyramidal tower .....	Private aid. 1935
2164	—East Breakwater Light .....	On north end of breakwater. 41 40.9 87 26.5	.....	24 78	White square tower on concrete base. 75	RBN: 298 kHz (— — — —) V1. Antenna at light tower. HORN: 2 blasts ev 20" (2 <sup>bl</sup> -2 <sup>si</sup> -2 <sup>bl</sup> -14 <sup>si</sup> ). Operates continuously. Standby Light Fl. W., 7 <sup>a</sup> . 1935
	—Buoy 1 .....	In 30 feet, on east side of entrance to channel.	.....	.....	Black can .....	Ra ref. Green reflector. Can; winter marker.
2165	—LIGHT 2 .....	Marks breakwater ....	.....	9 29	TR on white pile .....	Higher intensity toward lake. 1962
2166	—LIGHT 3 .....	South end of east breakwater.	.....	9 48	Square concrete structure .....	1970
2167	—LIGHT 6 .....	On breakwater near easterly end.	.....	5 48	TR on red skeleton tower on concrete base. 41	Higher intensity beam on bearing 165.5°. 1923
2168	—LIGHT 7 .....	On east side of entrance to canal.	.....	10 45	SB on white skeleton tower on concrete base. 39	Higher intensity beam northerly towards the lake. Obscured from 165° to 225°. 1920 1951-1968
2169	—LIGHT 8 .....	On west side of entrance to canal.	.....	5 13	TR on white skeleton tower on concrete base.	Private aid maintained from Apr. 15 to Nov. 15.
	Amoco Oil Company Obstruction Buoy.	In 12 feet .....	.....	.....	Orange and white horizontal bands, orange diamond, wooded "SUBMERGED PILINGS".	Private aid.
	Union Carbide Intake Buoy .....	Marks crib .....	.....	.....	Red and black horizontal bands; spar.	Private aid.
	American Oil Company Intake Buoy.	Marks crib. ....	.....	.....	Red and black horizontal bands; spar.	Red reflector. Private aid maintained from Apr. 15 to Nov. 15.
	NIPSCO Obstruction Buoys A, B, ...	In 11 feet. ....	.....	.....	Orange and white horizontal bands wooded "SUBMERGED PILINGS".	White reflector. Private aid maintained from Apr. 1 to Nov. 1.
	<b>Columet</b>					
2170	HAMMOND INTAKE CRIB LIGHT . Gk. Fl. W.	On intake crib .....	.....	39	White steel tower .....	Private aid. Maintained from Apr. 15 to Nov. 15. 1927
	American Maize Products Intake Buoy.	In 14 feet, southwest of Hammond Intake Crib Light.	.....	.....	Red and black horizontal bands; spar.	Private aid.
2171	—PARK 101ST STREET PIER LIGHT. F. R.	Outer end of pier ....	.....	7 33	NR on white skeleton tower ...	1937
	—Outer Shoal Buoy .....	In 30 feet, marks a 20-foot shoal. 41 46.0 87 23.7	.....	.....	Black and red horizontal bands; can.	Ra ref. Green reflector.

## SOUTH END

## LAKE MICHIGAN, ILLINOIS

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water	(6) Ht. above ground Structure	(7) Daymark Remarks Year	
<b>Calumet</b>							
2172	—Northeast Shoal Lighted Bell Buoy 2 Fl. R., 4 <sup>s</sup>	In 40 feet, marks east side of shoal. 41 45.6 87 28.0		4	Red	Ra ref. Nun; winter marker	
2173	—East Shoal Lighted Buoy 4 Fl. R., 6 <sup>s</sup>	In 29 feet 41 44.0 87 28.2		6	Red	Ra ref. Nun; winter marker	
2174	—HARBOR BREAKWATER SOUTH END LIGHT. Alt. Fl. W. R., 10 <sup>s</sup> 0.2 <sup>s</sup> Wfl., 4.8 <sup>s</sup> ec. 0.2 <sup>s</sup> Rfl., 4.8 <sup>s</sup> ec.	On southeast end of south breakwater. 41 43.5 87 29.6		17W 14R	White square skeleton tower, lower half open.	MKR RBN: 320 kHz. Antenna at light tower. HORN: 1 blast ev 15 <sup>s</sup> (2 <sup>bl</sup> ). 1935-1936	
2175	—Harbor Lighted Buoy 1 Fl. W., 4 <sup>s</sup>	In 27 feet, on south side of entrance to Calumet Harbor.		6	Black	Ra ref. Can; winter marker	
	—Buoy 3	In 27 feet			Black can	Green reflector.	
	—Buoy 5	In 27 feet			Black can	Green reflector.	
	—Buoy 7	In 27 feet			Black can	Green reflector.	
2176	—Harbor Lighted Buoy 9 Fl. G., 4 <sup>s</sup>	In 27 feet, at turn in channel.		4	Black	Can; winter marker.	
	Material Service Wreck Buoy WR 10.	In 36 feet			Red nun	Red reflector.	
2177	—Harbor Light Fl. W., 2.5 <sup>s</sup>	On southeast end of north breakwater. 41 44.3 87 30.5		13	51	White cylindrical tower attached to fog signal building on concrete pier.	1906 1935
2178	—HARBOR ENTRANCE SOUTH SIDE LIGHT. Fl. G., 4 <sup>s</sup>	On northwest end of south breakwater.		7	59 56	SB on white skeleton tower	1935
2179	—PIERHEAD LIGHT E. Int. R., 6 <sup>s</sup> (3.0 <sup>s</sup> fl)	On outer stub end of north pier.		12	42	TR on pile with concrete base.	1873-1923
2180	—RIVER ENTRANCE LIGHT Fl. G., 2.5 <sup>s</sup>	On Youngstown Sheet and Tube Co. dock, south side of entrance to river. 41 43.9 87 31.8		4	39	SB on square skeleton tower	1950
2181	NORTH SLIP SOUTH LIGHT F. R.	South side of entrance to slip. 41 44.3 87 31.8			54	Black tower	Private aid. 1938
2182	NORTH SLIP RANGE FRONT LIGHT. F. G.	At entrance to north slip. 41 44.4 87 31.8			60	White diamond daymark on black tower.	Private aid. 1925
2183	NORTH SLIP RANGE REAR LIGHT F. G.	1,100 feet, 288.5 <sup>s</sup> from front light.			119	White diamond daymark on Plate Mill Building	Private aid. 1935-1967
<b>CALUMET RIVER <sup>1</sup></b>							
2184	CONTINENTAL OIL COMPANY DOCK WEST LIGHT. F. R.	On end of wharf			9	Red oval daymark	Private aid. 1961
2185	CONTINENTAL OIL COMPANY DOCK EAST LIGHT. F. R.	On end of wharf			9	Red oval daymark	Private aid. 1961

(For continuation of Calumet-Sag Channel into Chicago Sanitary and Ship Canal, see No. 2213).

<sup>1</sup> Demarcation line between the "Rules of the Road - Great Lakes" and "Rules of the Road - Western Rivers" is as follows:  
a. On the Calumet River at the Thomas J. O'Brien Locks and Controlling Works (between mile 326 and 327).

CHICAGO HARBOR  
SOUTH SIDE

## LAKE MICHIGAN, ILLINOIS

(1)	(2)	(3)		(4)	(5)	(6)	(7)			
No.	Name Characteristic	Lat. N.	Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure	Daymark	Remarks	Year
(Chart 14927)										
	Clark Point Buoy 8 .....	In 21 feet, on east side of rocky reef.					Red nun .....		Red reflector.	
2187	FILTRATION PLANT BREAK-WATER SOUTH END LIGHT. Fl. R., 5 <sup>s</sup>	On south end of breakwater.		8	39		Grey skeleton tower .....		Private aid maintained from May 1 to Nov. 1, 1931	
2188	FILTRATION PLANT BREAK-WATER NORTH END LIGHT. Fl. R., 3 <sup>s</sup>	On north end of breakwater.		8	39		Grey skeleton tower .....		Private aid maintained from May 1 to Nov. 1, 1935	
2189	SIXTY-EIGHTH STREET CRIB LIGHT. Fl. R., 3 <sup>s</sup>	On Waterworks Crib, 2½ miles off Jackson Park, Chicago.			61		Silver-gray lantern on red skeleton tower on stone crib.		BELL: 1 stroke ev 12 <sup>s</sup> . Private aid.	1898-1923
2190	JACKSON PARK YACHT HARBOR OUTER LIGHT. Fl. R., 3 <sup>s</sup>	On outer end of pier, 41 47.1 87 34.1			32		White skeleton tower .....		Private aid maintained from Mar. 31 to Dec. 1, 1916-1937	
2191	JACKSON PARK YACHT HARBOR MIDDLE LIGHT. Fl. R., 3 <sup>s</sup>	On inner end of pier, .....			38		White skeleton tower .....		Private aid maintained from Mar. 31 to Dec. 1, 1916-1937	
(Chart 14928)										
2192	JACKSON PARK YACHT HARBOR NORTH SIDE LIGHT. F. R.	On north side of entrance to Yacht Harbor.			37		White post .....		Private aid maintained from Mar. 31 to Dec. 1, 1903	
2193	JACKSON PARK YACHT HARBOR SOUTH SIDE LIGHT. F. G.	On south side of entrance to Yacht Harbor.			33		Black post .....		Private aid maintained from Mar. 31 to Dec. 1, 1903	
2194	FIFTY-NINTH STREET YACHT HARBOR NORTH PIER LIGHT. F. R.	On outer end of pier ..			15		Black pole .....		Private aid maintained from Mar. 31 to Dec. 1, 1945	
	South Park Shoal Buoy 6 .....	In 18 feet, on east side of shoal.					Red nun .....		Red reflector.	
2195	Clemson Shoal Lighted Bell Buoy 4. Fl. W., 4 <sup>s</sup>	In 22 feet .....			6		Red .....		Ra ref. Nun; winter marker.	
	Hyde Park Shoal Outside Buoy 2...	In 16 feet .....					Red nun .....		Red reflector.	
2195.40	Lake Michigan Yachting Association Lighted Buoy W. Fl. W.	In 29 feet .....					White and orange horizontal bands.		Private aid.	
	Morgan Shoal Buoy 2 .....	In 15 feet, on east side of shoal.					Red nun .....		Red reflector.	
2195.60	Lake Michigan Yachting Association Lighted Buoy E. Fl. W.	In 43 feet .....					White and orange horizontal bands.		Private aid.	
2196	THIRTY-FIRST STREET JETTY LIGHT. Qk. Fl. R.	On outer end of jetty, 41 50.4 87 36.3			39		White skeleton tower .....		Private aid maintained from Apr. 1 to Dec. 1, 1958	
	Northerly Island Danger Zone East Buoy ZA.	In 17 feet. Marks danger zones off Northerly Island Airport.					White and orange horizontal bands; spar.		Private aid.	
	Northerly Island Danger Zone West Buoy ZA.	In 22 feet .....					White and orange horizontal bands; spar.		Private aid.	
	Northerly Island Danger Zone East Buoy ZB.	In 17 feet .....					White and orange horizontal bands; spar.		Private aid.	

CHICAGO HARBOR  
SOUTH SIDE

## LAKE MICHIGAN, ILLINOIS

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.		(4) Nominal Range	(5) Ht. above water	(6) Structure Daymark	(7) Remarks Year
	Northerly Island Danger Zone West Buoy ZB.	In 22 feet				White and orange horizontal bands; spar.	Private aid.
2197	BURNHAM PARK HARBOR LIGHT Fl. G., R. sector, 3 <sup>s</sup>	On mainland 41 51.7	87 36.6		8 49 44	White skeleton tower	Red from 135° to 255°. Private aid maintained from Mar. 31 to Dec. 1. 1940-1953
<b>CHICAGO HARBOR</b>							
2198	— Light Fl. R., 5 <sup>s</sup>	At south end of north breakwater. 41 53.3	87 35.4		24 82	White conical tower	RBN: 298 kHz (same) V. Antenna at light tower. HORN: All diaphragm; 2 blasts ev 30 <sup>s</sup> (2 <sup>bl</sup> -2 <sup>si</sup> -2 <sup>bl</sup> -24 <sup>si</sup> ). 1893-1919
2199	— Outer Lighted Bell Buoy 1 Fl. G., 6 <sup>s</sup>	In 65 feet 41 55.3	87 27.4		5	Black	Ra ref.
2200	Four-Mile Crib Light Fl. W., 15 <sup>s</sup> (1.2 <sup>fl</sup> )	Off Grant Park, Chicago. 41 52.4	87 32.7		10 66	Red skeleton tower on stone crib.	Private aid. Bell: 2 strokes ev 20 <sup>s</sup> . Standby hand-operated bell. Private aid. 1892-1923
	— Entrance Buoy 1	In 29 feet				Black can	Ra ref. Green reflector.
	— Entrance Buoy 2	In 29 feet				Red nun	Ra ref. Red reflector. Nun; winter marker.
2200.51	Lake Michigan Yachting Association Lighted Buoy S. Fl. W.	In 40 feet				White and orange horizontal bands.	Private aid.
2201	— OUTER BREAKWATER SOUTH END LIGHT. E. Int. R., 6 <sup>s</sup>	On breakwater, near south end.			9 48	TR on red skeleton tower on concrete base.	1923
2203	— ENTRANCE SOUTH SIDE LIGHT. E. Int. G., 6 <sup>s</sup>	At north end of breakwater, south side of main entrance to harbor.			9 48	SB on white skeleton tower	1918
2204	— BREAKWATER SOUTH LIGHT Fl. R., 4 <sup>s</sup>	On south end of inner breakwater.			6 36 33	TR on red skeleton tower	1876-1926
2205	— SOUTHEAST GUIDE WALL LIGHT. E. Int. W., 6 <sup>s</sup>	On outer end of wall at entrance to lock.			11 48	SB on white tower	Visible from 157° to 023°. HORN: 1 blast ev 10 <sup>s</sup> (1 <sup>bl</sup> ). Operates continuously. 1938
	Chicago River Entrance Basin Buoy 1.	In 13 feet				Black can	Green reflector.
2206	— MUNICIPAL PIER NO. 1 LIGHT. F. R.	On outer end			30	Red skeleton tower	Private aid. Maintained from Apr. 1 to Dec. 1. 1916
2207	— NAVY PIER NO. 2 LIGHT E. Int. R., 4 <sup>s</sup>	On southeast corner of pier.			30	Black skeleton mast on concrete base.	Private aid.
2208	— FILTRATION PLANT LIGHT B. Fl. R., 4 <sup>s</sup>	Off southeast end of retaining wall.				Dolphin	Private aid maintained from Mar. 15 to Dec. 15.
2209	— FILTRATION PLANT LIGHT A. Fl. R., 4 <sup>s</sup>	On northeast corner of retaining wall.					Private aid maintained from Mar. 15 to Dec. 15. 1890-1906
2211	— OUTER BREAKWATER NORTH-WEST END LIGHT. Fl. G., 4 <sup>s</sup>	On breakwater, near northwest end, east side of gap.			5 55 50	SB on white skeleton tower	
2212.10	William E. Dever Crib Light Gk. Fl. W.	On crib 41 55.0	87 34.3		8 72	Red skeleton tower	HORN: 1 blast ev 20 <sup>s</sup> (2 <sup>bl</sup> ). Private aid. 1976

## ILLINOIS WATERWAY

## LAKE MICHIGAN, ILLINOIS

(1)	(2)	(3)		(4)	(5)	(6)	(7)			
No.	Name	Lat. N.	Long. W.	Nominal Range	Hr. above water	Hr. above ground	Structure	Daymark	Remarks	Year
CHICAGO SANITARY AND SHIP CANAL <sup>1</sup>										
(Chart 14927)										
	Columbia Wreck Buoy WR1.....	In North Branch Canal of Chicago River, 150 feet south of Blackhawk Street.					Black can.....		White reflector.	
2213	COMMONWEALTH TERMINAL LIGHTS. 3 F. G.	Mile 318.7, on right side of channel.			6 50				Lights mark upstream and downstream pile clusters and tower boom. Private aid. 1936-1939	
2214	RIDGELAND STATION LIGHTS ... 3 F. G.	Mile 315.0, on right side of channel.					Mark dock.....		Private aid. 1950-1951	
2215	MISSOURI PORTLAND CEMENT COMPANY DOCK LIGHT. F. R.	Mile 314.7, on left side of channel.				33	Black sheet piling.....		Private aid.	
2216	SHELL DOLPHIN LIGHTS..... 2 F. R.	Mile 310.8, on left side of channel.				13	Dolphins.....		Private aids. 1950	
	-Buoy 292.8.....	In 14 feet, on right bank Mile 292.8.					Black can.....		Marks former location of Lockport 9th Street Bridge.	

(For continuation of Illinois Waterway-Des Plaines River, see Mississippi River System Light List).

<sup>1</sup> Designations left and right in location column are as seen from a vessel going downstream.

Aids to navigation between Lockport Lock and Dam and Mouth of the Illinois River are under the jurisdiction of the Commander, 2nd Coast Guard District, St. Louis, Missouri.

## WEST SIDE

## LAKE MICHIGAN, ILLINOIS

(1)	(2)	(3)	(4)	(5)	(6)	(7)			
No.	Name	Location	Nominal Range	Ht. above water	Ht. above ground	Structure	Daymark	Remarks	Year
<b>Chicago North Side</b>									
2300	NORTH AVENUE JETTY LIGHT.. Fl. R., 4 <sup>s</sup>	On outer end of jetty.. 41 54.9 87 37.2		32		Red skeleton tower.....		Private aid.	1953
2301	DIVERSEY YACHT HARBOR RANGE FRONT LIGHT. F. R.	Foot of Diversey Ave. 41 56.0 87 37.8		30		White pile .....		Private aid maintained from Apr. 1 to Dec. 1.	1913
2302	DIVERSEY YACHT HARBOR RANGE REAR LIGHT. F. W.	120 feet 270' from front light.		31		White pile .....		Private aid maintained from Apr. 1 to Dec. 1.	1913
	Lincoln Park Gun Club Buoys A, B, C, D.	Mark shotgun range...				Orange and white; float.....		Private aids maintained from May 15 to Dec. 1.	
2303	BELMONT HARBOR LIGHT .....	On north side of channel leading into harbor. 41 56.5 87 38.0		6	47	Red skeleton tower .....		Private aid maintained from Apr. 1 to Dec. 1.	1916
2304	BELMONT HARBOR INNER LIGHT. Fl. R., 3 <sup>s</sup> Belmont Rock Shoal Buoy.....	On north side of channel. Marks 9-foot shoal, 1,600 feet 067°30' Belmont Yacht Harbor Light.		13	80	Red skeleton tower .....		Private aid maintained from Apr. 1 to Dec. 1 1955	
						Red and black horizontal bands; sun.		Red reflector.	
2305	MONTROSE BREAKWATER LIGHT. Fl. R., 3 <sup>s</sup>	On easterly point of breakwater, foot of Montrose Ave. 41 57.8 87 37.9			35	Red skeleton tower.....		Private aid.	1928
2306	MONTROSE HARBOR EAST BREAKWATER LIGHT. Fl. R., 3 <sup>s</sup>	On east side of entrance to harbor. 41 57.6 87 37.4			44	Red skeleton tower..... 33		Private aid.	1935-1949
2307	MONTROSE HARBOR WEST BREAKWATER LIGHT. Fl. G., 3 <sup>s</sup>	On west side of entrance to harbor.			38	Red skeleton tower .....		Private aid.	1935-1949
						33			
2307.10	LINCOLN PARK SOUTH BREAK- WATER LIGHT. F. G.				10	On pile .....		Private aid.	1974
2307.20	LINCOLN PARK NORTH BREAK- WATER LIGHT. F. R.				10	On pile .....		Private aid.	1974
2308	WILSON AVENUE BREAKWATER LIGHT. Fl. G., 3 <sup>s</sup>	On north end of breakwater.			36	White skeleton tower, inclosed base.		Private aid.	1931
2309	WILSON AVENUE INTAKE CRIB LIGHT. Qk. Fl. W.	On crib .....			68	Red cylindrical tower on stone crib.		HORN: 1 blast ev 20 <sup>s</sup> (2 <sup>s</sup> bl). Private aid.	1915-1923
2309.51	Lake Michigan Yachting Associa- tion Lighted Buoy N. Fl. W.	In 51 feet .....				White and orange horizontal bands.		Private aid.	
2310	FOSTER AVENUE PIERHEAD LIGHT. Fl. W., 3 <sup>s</sup>	On end of pier .....		6	37	White skeleton tower, inclosed base.		Private aid.	1931-1953
2311	HOLLYWOOD AVENUE BREAKWATER LIGHT. Fl. R., 3 <sup>s</sup>	On northerly end of breakwater. 41 59.2 87 38.9			32	Red skeleton tower.....		Private aid.	1954
2312	PARWELL AVENUE BREAKWATER LIGHT. Fl. R., 3 <sup>s</sup>	In 12 feet, off end of breakwater. 42 00.4 87 39.4			32	Red skeleton tower.....		Private aid maintained from Apr. 1 to Dec. 1.	1956
2312.50	CITY OF EVANSTON LAUNCH FACILITY LIGHT. F. R.	Marks launch at Dawes Park.			38	On pile .....		Private aid maintained from May 1 to Oct. 15.	1974
2313	Grossepoint Light..... Gp. Fl. W., 15 <sup>s</sup> 1.5 <sup>fl.</sup> , 2 <sup>sec.</sup> 1.5 <sup>fl.</sup> , 10 <sup>sec.</sup> 2 flashes.	On point .....		21	119	White, conical tower, red roofs..		Private aid.	1873

## WEST SIDE

## LAKE MICHIGAN, ILLINOIS

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.		(4) Nominal Range	(5) Ht. Ht. above water ground	(6) Structure Daymark	(7) Remarks Year
<b>Chicago North Side</b>							
	Evanston Boat Ramp Buoys 1, 3, 5.	Mark boat ramp	42 02.2 87 40.2			Black can	Private aid maintained from May 1 to Oct. 31.
	Evanston Boat Ramp Buoys 2, 4, 6.	Mark boat ramp				Red sun	Private aid maintained from May 1 to Oct. 31.
(Chart 14905)							
	Wilmette Harbor Entrance Buoy 1 ..	In 5 feet				Black can	Private aid maintained from Apr. 1 to Nov. 10.
	Wilmette Harbor Entrance Buoy 2 ..	In 5 feet				Red sun	Private aid maintained from Apr. 1 to Nov. 10.
2314	WILMETTE HARBOR ENTRANCE SOUTH LIGHT. Occ. G., 7.6 <sup>s</sup> (4 <sup>s</sup> lt)	On end of south pierhead.			15	Black pile	Private aid maintained from Apr. 1 to Nov. 10.
2315	WILMETTE HARBOR ENTRANCE NORTH LIGHT. Occ. R., 7.6 <sup>s</sup> (4 <sup>s</sup> lt)	On end of north pierhead.			15	Black pile	Private aid maintained from Apr. 1 to Nov. 10.
2316	WILMETTE HARBOR PIERHEAD LIGHT. Occ. W., 7.6 <sup>s</sup> (4 <sup>s</sup> lt)	On end of north pier at entrance to Wilmette Harbor. 42 04.8 87 40.8			40	Red pile	Private aid. 1921
2319	Wilmette Wreck Lighted Bell Buoy WR2. Qk. Fl. W.	In 34 feet, 058° 10,750 feet from tower, C. G. Station Wilmette.			6	Red	50 feet lakeward of sunken crane. Nun; winter mark.
2320	Grossepointe Outer Lighted Bell Buoy 4. Fl. R., 6 <sup>s</sup>	In 29 feet, east of shoal spot. 42 08.3 87 35.4			5	Red	Ra ref. Nun; winter marker.
	Winnetka Water Intake Buoy A, B, C.	Marks water intake off Hubbard Woods.				Red and black horizontal bands; spar.	Private aid.
<b>Great Lakes</b>							
2321	— HARBOR RANGE FRONT LIGHT. F. G.	On inner end of north pier. 42 18.6 87 49.9			60	White triangular daymark with black vertical stripe through center on white skeleton tower.	1944
2322	— HARBOR RANGE REAR LIGHT. F. G.	On side of bluff, 200 feet 302 $\frac{1}{2}$ ° from front light.			70	White triangular daymark with black triangular center on skeleton tower.	1944
2323	— EAST BREAKWATER LIGHT .... Fl. R., 4 <sup>s</sup>	On breakwater, 60 feet from south end.		5	47	White skeleton tower on concrete base.	Maintained from Mar. 15 to Dec. 15, 1923
2324	— SOUTH BREAKWATER LIGHT .. Fl. W., 4 <sup>s</sup>	On breakwater, 60 feet from easterly end.		8	45	White skeleton tower on concrete base.	Maintained from Mar. 15 to Dec. 15, 1923
2325	— EAST PIERHEAD LIGHT ..... Fl. R., 2.5 <sup>s</sup>	On pierhead.		4	15	White tower	Maintained from Mar. 15 to Dec. 15, 1957
2326	— WEST PIERHEAD LIGHT ..... Fl. W., 2.5 <sup>s</sup>	On pierhead		5	15	White tower	Maintained from Mar. 15 to Dec. 15, 1957
	— Firing Area Buoy A .....	Marks limits of firing range.				Orange and white; red flag with lettering "FIRING RANGE".	Maintained by U. S. Naval Training Center, Great Lakes, Ill.
	— Firing Area Buoy B .....	Marks limits of firing range.				Orange and white; red flag with lettering "FIRING RANGE".	Maintained by U. S. Naval Training Center, Great Lakes, Ill.
<b>Waukegon (Chart 14904)</b>							
2327	— Harbor Light ..... Fl. G., 10 <sup>s</sup>	On outer end of south pier. 42 21.6 87 48.8		15	36	White cylindrical tower attached to fog signal building. 35	RBN: 304 kHz (•••••). HORN: 2 blasts ev 30 <sup>s</sup> (2 <sup>bl</sup> -2 <sup>si</sup> -2 <sup>bl</sup> -24 <sup>si</sup> ). Emergency light Fl. G., 6 <sup>s</sup> . Operates continuously. 1889-1905

## WEST SIDE

## LAKE MICHIGAN, ILLINOIS AND WISCONSIN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long W.	(4) Nominal Range	(5) Ht. above water	(6) Ht. above ground Structure Daymark	(7) Remarks Year
<b>Waukegan</b>						
	— Shoals Buoy 1 .....	In 21 feet, at east end of shoal.			Black can .....	Green reflector.
2328	— Shoals Lighted Buoy 3 .....	In 28 feet, northeast of 18-foot shoal.		5	Black .....	Red ref. Can; winter marker.
2329	— BREAKWATER LIGHT .....	On southeast end of breakwater.		5	45 Red triangular daymark on white skeleton tower on concrete base.	Red reflector. 1905-1923
2330	— NORTH PIERHEAD LIGHT .....	On outer end of north pierhead.		8	16 White pile, small white house attached.	1957
<b>WEST SIDE</b>						
2331	COMMONWEALTH EDISON BREAK-WATER LIGHT. Fl. R., 6 <sup>s</sup>	On end of north breakwater.			35 Red skeleton tower .....	Private aid. 1931
2332	JOHNS-MANVILLE INTAKE CRIB LIGHT. Gk. Fl. W.	On crib .....			38 White skeleton tower .....	Private aid. 1923
2332.50	Zion Intake Lighted Buoy A .....	In 22 feet .....			Red and black horizontal bands.	Private aid maintained from Apr. 1 to Dec. 1.
	1. Gk. Fl. W.	42 26.7 87 47.4			Red and black horizontal bands.	Private aid maintained from Apr. 1 to Dec. 1.
	Zion Discharge Buoy B .....	In 12 feet .....			Red and black horizontal bands.	Private aid maintained from Apr. 1 to Dec. 1.
	Zion Discharge Buoy C .....	In 12 feet .....			Red and black horizontal bands.	Private aid maintained from Apr. 1 to Dec. 1.
	American Brass Co.'s Intake Buoy .....	In 19 feet .....			Red and black horizontal bands; spar.	Private aid maintained from Apr. 15 to Dec. 15.
2333	RUNAWAY BAY ENTRANCE SOUTH LIGHT. Gk. Fl. G.	42 29.5 87 48.1			20 Steel pile; green square daymark.	Private aid maintained from Apr. 15 to Nov. 15.
2333.10	RUNAWAY BAY ENTRANCE NORTH LIGHT. Gk. Fl. R.	42 29.6 87 48.1			20 Red triangle daymark on pile...	Private aid maintained from Apr. 15 to Nov. 15.
<b>Kenosha</b>						
2334	— Light .....	On end of north pier .		14	50 Red cylindrical tower .....	HORN: 1 blast ev 30 <sup>s</sup> (3 <sup>bl</sup> ). 1856-1906
	Fl. R., 7.5 <sup>s</sup>	42 35.4 87 48.5			50 Black can .....	Green reflector.
	— Harbor Entrance Buoy 1 .....	In 27 feet .....			Red sun .....	Red reflector.
2335	— BREAKWATER LIGHT .....	On southeast end of breakwater.		6	42 Red octagonal skeleton tower, inclosed concrete base.	Higher intensity lakeward. 1900-1921
2336	— SOUTH PIER LIGHT .....	On end of pier .....		5	47 White skeleton tower on cylinders.	Higher intensity lakeward. 1937
2336.50	— DISPOSAL AREA LIGHT .....	On southeast corner of dike.		7	30 NR on pile .....	1975
	Fl. W., 4 <sup>s</sup>					
	— Waterworks Intake Buoy A .....	In 23 feet Marks intake Crib.			White can with orange horizontal bands and diamond, marked DANGER.	Private aid.
	— Waterworks Intake Buoy B .....	In 25 feet .....			White can with orange horizontal bands and diamond, marked DANGER.	Private aid.
<b>Rocine (Chart 14925)</b>						
2337	— Reef Light .....	On east side of reef ..		12	56 White skeleton tower on concrete crib.	HORN: 1 blast ev 15 <sup>s</sup> (2 <sup>bl</sup> ), operates continuously. 1906-1961
	Fl. W., 6 <sup>s</sup>	42 43.6 87 44.2			50 Black .....	Can; winter marker.
2338	— Reef West End Lighted Buoy 1 ..	In 30 feet, on western end of reef.		6		
	Fl. W., 4 <sup>s</sup>					
2339	— SOUTH BREAKWATER LIGHT ..	On end of breakwater .		6	42 White skeleton tower .....	1917
	Fl. W., 4 <sup>s</sup>					

## WEST SIDE

## LAKE MICHIGAN, WISCONSIN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water ground	(6) Structure Daymark	(7) Remarks Year
<b>Recise</b>						
2340	—NORTH BREAKWATER LIGHT .. F. R.	On end of breakwater 42 44.1 87 46.3	14	53	Red square pyramidal skeleton tower, upper half inclosed.	HORN: 2 blasts ev 20 <sup>s</sup> (2 <sup>bl</sup> -2 <sup>bl</sup> -2 <sup>bl</sup> -14 <sup>bl</sup> ). 1900-1923
	—Harbor Buoy 1 .....	In 19 feet, mark limits of outer basin.			Black can .....	Green reflector.
	—Harbor Buoy 2 .....				Red nun .....	Red reflector.
	—Harbor Buoy 3 .....				Black can .....	Green reflector.
	—Harbor Buoy 4 .....				Red nun .....	Red reflector.
2341	—NORTH PIERHEAD LIGHT .... F. R.	On stub end of pier ..	9	31	Red pile .....	Higher intensity to the east. 1916
2341.50	—YACHT CLUB SOUTH BREAK- WATER LIGHT. F. R.	On south end of breakwater. 42 44.1 87 46.6		15	On pipe .....	Private aid. Maintained from Apr. 1 to Nov. 1. 1975
2341.60	—YACHT CLUB NORTH BREAK- WATER LIGHT. Gk. Fl. G.	On north end of breakwater.		15	On pipe .....	Private aid. Maintained from Apr. 1 to Nov. 1. 1975
<b>WEST SIDE (Chart 14904)</b>						
2343	Wind Point South Shoals Buoy 16 .. Wind Point Light..... Fl. W., 20 <sup>s</sup>	In 24 feet .....	29	111	Red nun .....	Red reflector.
		On Point..... 42 46.9 87 45.5			White conical tower connected to dwelling. 108	1880
2344	Wind Point North Shoals Lighted Buoy 14 Fl. W., 4 <sup>s</sup>	In 23 feet, on south- east end of shoals.	6		Red .....	Nun; winter marker.
2345	OAK CREEK RANGE FRONT LIGHT. F. R.	42 50.9 87 49.4		20	Gray pile .....	Private aid maintained from Mar. 1 to Dec. 1. 1956-1957
2346	OAK CREEK RANGE REAR LIGHT. F. G.	350 feet 268* from front light.		22	Gray pile .....	Private aid maintained from Mar. 1 to Dec. 1. 1956-1957
2348	Dredge 906 Wreck Lighted Buoy WR I. Gk. Fl. G.	In 66 feet, 150 feet east of wreck.	4		Black and red horizontal bands.	Can; winter marker. Main- tained for Corps of Engineers, U. S. Army. Commission. 1931
2349	Milwaukee South Point Lighted Bell Buoy 1. Fl. W., 4 <sup>s</sup>	In 30 feet, on easterly edge of shoal. 42 59.3 87 49.9	6		Black .....	Ra ref. Can; winter marker.
<b>Milwaukee (Chart 14924)</b>						
2350	—Breakwater Light .....	On southeast end of north breakwater. 43 01.6 87 52.9	14	61	Black lantern on white square structure. 53	Light is also shown when fog signal is in operation. Structure is floodlighted from sunset to sunrise. RBN: 298 kHz (==) III . Antenna at light tower. HORN: 2 blasts ev 20 <sup>s</sup> (2 <sup>bl</sup> -2 <sup>bl</sup> -2 <sup>bl</sup> -14 <sup>bl</sup> ). Submarine cable runs to Milwaukee Pierhead light. Illuminated sign on channel- ward side of light structure "Cable Cross- ing, No Anchoring". 1926
2351	—BREAKWATER ENTRANCE SOUTH SIDE LIGHT. Fl. G., 2.5 <sup>s</sup>	On south breakwater, 30 feet from northerly end.	7	47	SB on white skeleton tower on concrete base.	1926

## WEST SIDE

## LAKE MICHIGAN, WISCONSIN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water	(6) Ht. above ground Structure Daymark	(7) Remarks	Year
<b>Milwaukee</b>							
2352	— SOUTH ENTRANCE LIGHT Fl. R., 4 <sup>s</sup>	On north side of gap in breakwater. 43 00.5 87 52.6		5	42	TR on red skeleton tower	1929
2353	— NORTH ENTRANCE LIGHT Fl. G., 4 <sup>s</sup>	On end of pier at south side of North Gap. 43 02.6 87 52.8		7	42	SB on black skeleton tower	1941
2354	— PIERHEAD LIGHT F. R.	On outer end of north pier.		12	45 41	TR on red cylindrical tower	HORN: 2 blasts ev 30 <sup>s</sup> (2 <sup>bl</sup> -2 <sup>si</sup> -2 <sup>bl</sup> -24 <sup>si</sup> ). 1872-1906
2355	— SOUTH PIERHEAD LIGHT Fl. W., 4 <sup>s</sup>	On pier		6	41	SB on white pyramidal shaft	Higher intensity lakeward. 1912
2356	— CITY PIER SOUTH SLIP LIGHT 2. F. R.	On north side of slip.			12	Green pipe standard	Private aid. 1950
2357	— CITY PIER SOUTH SLIP LIGHT 1. F. G.	On south side of slip.			12	Green pipe standard	Private aid. 1950
2358	— CITY SOUTH PIER NO. 2 NORTH LIGHT. Fl. G., 4 <sup>s</sup>	On north corner of pier			20		Private aid maintained from Apr. 30 to Nov. 30. 1963
2359	— CITY SOUTH PIER NO. 2 SOUTH LIGHT. Fl. R., 4 <sup>s</sup>	On south corner of pier.			20		Private aid maintained from Apr. 30 to Nov. 30. 1963
2360	— Tanker Pier Buoy 2	In 22 feet				Red spar	Red reflector. Private aid.
2360	— TANKER PIER LIGHT Fl. W., 4 <sup>s</sup>	On end of pier 43 00.9 87 53.4			14	Green pipe standard	Private aid. 1951
2360.60	— Tanker Pier Buoy 1	In 22 feet				Black spar	White reflector. Private aid.
2360.60	— SOUTH DISPOSAL AREA LIGHT 2. Fl. R., 2.5 <sup>s</sup>	On southeast corner of dike. 43 00.3 87 53.1		4	31	NR on pile	1975
2361	SOUTH SHORE PARK BREAK- WATER LIGHT. F. G. — Harbor Special Anchorage South Buoy A, B, C, D, E.	On westerly end of south shore rubble mound protection. In 10 to 20 feet, marks small craft anchor- age south end of harbor.		10	16	Pipe standard	Private aid. 1932
	Texas Rocks Buoy 2	In 5 feet, marks rock obstruction.				Red nun	Red reflector.
2364	MCKINLEY PARK JETTY LIGHT. Qk. Fl. W.	On end of jetty			20	White pile	Private aid maintained Apr. 15 to Nov. 15. 1963
	McKinley Park Shoal Buoys 2, 4, 6, 8.	In 19 to 17 feet				Red	Private aids maintained from Apr. 1 to Dec. 1.
2365	MCKINLEY PARK LIGHT F. G.	On west corner of Milwaukee Yacht Club Slip.		6	20	Square, buff-colored concrete tower.	Private aid maintained from May 15 to Oct. 15. 1950
2366	— INTAKE CRIB OBSTRUCTION LIGHT. Qk. Fl. W.	On construction tower. 43 03.5 87 51.9			4		Private aid maintained from May 1 to Nov. 1.
<b>WEST SIDE (Chart 14904)</b>							
2367	North Point Light F. Fl. W., 30 <sup>s</sup>	On point 43 03.9 87 52.3	24Fl 18F	154	White, red roof, octagonal tower adjacent to dwelling. 74		1838-1912
<b>Port Washington</b>							
2368	— Breakwater Light Fl. R., 5 <sup>s</sup>	On southeasterly end of north breakwater. 43 23.2 87 51.7		14	78	White square tower on concrete base.	HORN: 2 blasts ev 30 <sup>s</sup> (2 <sup>bl</sup> -2 <sup>si</sup> -2 <sup>bl</sup> -24 <sup>si</sup> ). Operates continuously. 1935

## WEST SIDE

## LAKE MICHIGAN, WISCONSIN

(1)	(2)	(3)	(4)	(5)	(6)	(7)	
No.	Name Characteristic	Location Lat. N. Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure Daymark Remarks	Year
<b>Port Washington</b>							
2369	— SOUTH PROJECTION JETTY LIGHT. F. W.	.....	.....	7	40	On black mast .....	Private aid. 1912
2370	— SOUTH BREAKWATER LIGHT. Fl. G., 4 <sup>s</sup>	On outer end of south breakwater.	.....	7	48	SB on white skeleton tower on concrete base.	1934-1937
2371	— SOUTH PIER LIGHT F. G.	Marks offset in pier ..	.....	.....	34	White mast .....	Private aid. 1934
2372	— PIERHEAD LIGHT F. R.	Near outer end of north stub pier at mouth of Sauk River.	.....	7	32	TR on white skeleton tower on cylinders.	1849-1940
	Nako Research Buoy A, B, C	In 10 to 30 feet	.....	.....	.....	White horizontal bands; can. ...	Private aids.
<b>Sheboygan (Chart 14903)</b>							
2373	— GENERATING STATION SOUTH INTAKE CRIB LIGHT. Fl. R., 3 <sup>s</sup>	In 15 feet, 1,500 feet off shore. 43 43.0 87 42.0	.....	.....	46	Red skeleton tower on cylindrical concrete intake well.	Private aid. 1931
2374	— GENERATING STATION NORTH INTAKE LIGHT. Fl. R., 10 <sup>s</sup>	In 21 feet, 280 feet north of south intake light.	.....	.....	48	Red rectangular tower .....	Private aid. 1951
<b>(Chart 14922)</b>							
2375	— Breakwater Light Occ. W., 4 <sup>s</sup> (3 <sup>s</sup> k)	On southeast end of breakwater. 43 45.0 87 41.5	.....	14	55	Red cylindrical tower .....	HORN: 1 blast ev 30 <sup>s</sup> (3 <sup>s</sup> bl). 1915
2376	— SOUTH PIERHEAD LIGHT Fl. G., 4 <sup>s</sup>	On end of pier .....	.....	7	40	White skeleton tower .....	1915
2377	— NORTH PIERHEAD LIGHT F. R.	On stub end of pier ..	.....	9	31	Red pile .....	1916-1951
2378	— Marker Radiobeacon	On shore at Coast Guard Lifeboat Station. 43 45.0 87 42.2	.....	.....	.....	.....	MKR RBN: 324 kHz. Antenna at Lifeboat Station.
	— Reef Buoy 2	In 36 feet, off east side of reef.	.....	.....	.....	Red sun .....	Red reflector.
<b>Manitowec</b>							
2379	— Breakwater Light E. Int. W., 6 <sup>s</sup>	On south end of north breakwater. 44 05.6 87 38.6	.....	17	52	White cylindrical tower of fog signal building.	MKR RBN: 320 kHz. Antenna at light tower. HORN: 2 blasts ev 20 <sup>s</sup> (2 <sup>bl</sup> -2 <sup>si</sup> -2 <sup>bl</sup> -14 <sup>si</sup> ), from sunset to sunrise. 1895-1918
	— Shoal Buoy 1	In 29 feet, marks north east end of shoal.	.....	.....	.....	Black can .....	Green reflector.
	— Shoal Buoy 2	In 24, feet, southeasterly of shoal.	.....	.....	.....	Red sun .....	Red reflector.
2381	— SOUTH BREAKWATER LIGHT Fl. G., 2.5 <sup>s</sup>	On end of breakwater.	.....	5	47	SB on white pyramidal shaft on pedestal. 37	Higher intensity lakeward.
2382	— PIERHEAD LIGHT F. R.	On end of north pier ..	.....	10	....	TR on red skeleton tower on concrete base.	Higher intensity lakeward. 1839-1949
<b>Two Rivers (Chart 14903)</b>							
2383	— NORTH PIERHEAD LIGHT F. R.	On outer end of pier .. 44 08.6 87 33.6	.....	9	34	TR on white skeleton tower .....	HORN: 1 blast ev 15 <sup>s</sup> (2 <sup>bl</sup> bl). 1886-1928
2384	— SOUTH PIERHEAD LIGHT Fl. W., 4 <sup>s</sup>	On outer end of south pierhead.	.....	6	27	White skeleton tower .....	1940

## WEST SIDE

## LAKE MICHIGAN, WISCONSIN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water	(6) Ht. above ground Structure	(7) Daymark Remarks Year
<b>Two Rivers</b>						
2385	Rowley Point Light Fl. W., 26' (8'4")	On point 44 12.7 87 30.5		25 113	White cylindrical tower 111	RBN: 308 kHz (•••••) VI. Antenna is located 262 feet, 105' from the main light. 1853-1894
2386	TWO CREEKS INTAKE EAST LIGHT. Qk. Fl. W.	On the east side of intake well. 44 17.1 87 31.6		18	On well	Private aid. Maintained from Mar. 1 to Dec. 1. 1968
2387	TWO CREEKS INTAKE WEST LIGHT. Qk. Fl. W.	On the west side of intake well.		18	On well	Private aid. Maintained from Mar. 1 to Dec. 1. 1968
<b>Keweenaw</b>						
2388	— SHOAL LIGHT Fl. G., 5'	44 27.1 87 27.9		14 45	White skeleton tower	HORN: 1 blast ev 15' (2 <sup>bl</sup> ). 1937-1976
2389	— Pierhead Light F. W.	On outer end of south pier.		15 45	White square tower on fog signal building.	RBN: 308 kHz (•••••) III. Antenna at light tower. HORN: 1 blast ev 30' (3 <sup>bl</sup> ). 1891-1931
2390	— BREAKWATER LIGHT. Fl. R., 4'	On south end of breakwater.		5 55	Red skeleton tower on cylinders, 53	1936
2391	— NORTH PIERHEAD LIGHT Fl. R., 4'	On pier, near outer end		5 38	TR on pile	1913-1975
<b>Algona (Chart 14910)</b>						
2392	— Pierhead Light E. Int. R., 6'	On end of north pier. 44 36.4 87 25.8		13 48	Red cylindrical tower 42	HORN: 1 blast ev 10' (1 <sup>bl</sup> ). Emergency Light. Horn operated between 6:00 A. M. and 11:30 P. M. local time when visibility less than 2 miles from Apr. 1 through Dec. 1. Oper- ated other times as required by local con- ditions. 1893-1932
2392.10	— SOUTH BREAKWATER LIGHT Fl. G., 4'	250 feet 212' from pierhead light.		6 15	SB on pile	1971
2393	— INNER LIGHT F. R. (Chart 14919)	At angle of north pier.		9 28	TR on white pile 22	1893-1932
	Canal Shoal Buoy 1	In 19 feet, on east side of shoal. 44 45.3 87 18.3			Black can	Green reflector.
<b>STURGEON BAY</b>						
2394	— Canal Light Fl. R., 10'	On the north side of entrance to canal. 44 47.7 87 18.8		14 107	White cylindrical tower 98	1899
2395	— CANAL NORTH PIERHEAD LIGHT. Fl. R., 2.5'	On end of north detached pier. 44 47.5 87 18.6		11 40	Red cylindrical tower, attached to fog signal building. 39	RBN: 308 kHz (•••••) II. Antenna shore, 1,455 feet 316' from light tower. DIAPHRAGM: 2 blasts ev 30' (2 <sup>bl</sup> -2 <sup>si</sup> -2 <sup>bl</sup> - 24 <sup>si</sup> ). Emergency light range 6 miles. 1882-1903

## STURGEON BAY

## LAKE MICHIGAN, WISCONSIN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water	(6) Ht. above ground Structure	(7) Daymark Remarks Year
2396	— Lighted Buoy 2 Fl. R., 2.5'	In 23 feet 44 46.7 87 17.4		4	Red	Ra ref. Nun; winter marker.
	— Buoy 3	In 23 feet			Black can	Green reflector.
	— Buoy 4	In 25 feet			Red nun	Red reflector.
2397	— CANAL SOUTH PIERHEAD LIGHT. Fl. G., 4'	On end of south detached pier.		5	40 Small white house on skeleton tower.	1881
	— Canal South Side Daybeacon	On southwest entrance to canal.			White rectangular daymark on pyramidal structure.	Floodlighted.
2398	— CANAL LIGHT 6 F. R.	On northeast side of entrance to canal.		9	11 Red pole	1886
2399	— LIGHT 7 Fl. W., 4'	On south side of canal.		6	19 15 SG on white skeleton tower on pier.	Higher intensity beam up and downstream. 1896-1952
	— Buoy 9	In 22 feet			Black can	Green reflector.
	— Buoy 10	In 22 feet			Red nun	Ra ref. Red reflector.
	— Buoy 11	In 22 feet			Black can	Green reflector.
2400	— LIGHT 12 Fl. R., 4'	Marks two in channel.		5	21 15 TR on pile.	1896-1897
2401	— CANAL RANGE FRONT LIGHT. Ck. Fl. W.	On shore 44 48.7 87 20.1			28 15 KRW on red skeleton tower on crib.	Visible on range line only. 1961
2402	— CANAL RANGE REAR LIGHT. F. W.	1,600 feet 120' from front light.			47 15 KRW on skeleton tower	Visible on range line only. 1961
2403	— CANAL LEADING LIGHT F. G.	On highway bridge			25	1961
	— Buoy 15	In 22 feet			Black can	Ra ref. Green reflector.
	— Buoy 16	In 22 feet			Red nun	Red reflector.
	— Buoy 17	In 22 feet			Black can	Green reflector.
	— Canal Buoy 17A	In 22 feet			Black can	Green reflector.
2404	— Lighted Buoy 18 Fl. R., 4'	In 22 feet, at bend		4	Red	Nun; winter marker.
	— Turning Basin Buoy 1	In 20 feet			Black can	Green reflector.
	— Buoy 19	In 20 feet, on east side of middle ground.			Black can	Green reflector.
	— Buoy 22	In 22 feet			Red nun	Red reflector.
2405	— LIGHT 21 Fl. G., 4'	In 12 feet, on north end of Dunlap Reef.		6	23 SB on white skeleton tower, cylindrical base.	Higher intensity beam up and downstream. 1924
	— Buoy 23	In 22 feet			Black can	Green reflector.
	— Buoy 24	In 25 feet, on east edge of channel.			Red nun	Red reflector.
	— Buoy 25	In 21 feet			Black can	Ra ref. Green reflector.
2406	— Lighted Buoy 26 Fl. R., 4'	In 21 feet, east side of channel.			Red	Ra ref. Nun; winter marker.
2407	— LIGHT 27 Fl. W., 4'	On Hills Point, close to shore line.		6	40 White skeleton tower	Higher intensity beam up and downstream. 1924
	— Buoy 28	In 22 feet			Red nun	Red reflector.
	— Buoy 29	In 19 feet			Black can	Green reflector.
2408	— ENTRANCE LEADING LIGHT. E. Int. W., 6'	Western entrance to canal.			28 White and black horizontally banded daymark on white	Visible on range line only. 1960
	— Buoy 31	In 20 feet, on east side of shoal off entrance to Sawyers Harbor.			Black can	Ra ref. Green reflector.
2409	— Lighted Buoy 37 Fl. R., 4'	In 23 feet, marks entrance to Sturgeon Bay Channel from Green Bay side.		4	Red	Nun; winter marker.
2410	— ASHERS SMALL BOAT HARBOR LIGHT. Fl. W., 4'	44 53.1 87 23.0			18 White steel tower	Private aid maintained from Apr. 15 to Nov. 15. 1970

## STURGEON BAY

## LAKE MICHIGAN, WISCONSIN

(1)	(2)	(3)	(4)	(5)	(6)	(7)	
No.	Name Characteristic	Location Lat. N. Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure Daymark	Remarks Year
2410.50	N. W. FREEMAN BREAKWATER LIGHT. Fl. W., 4 <sup>s</sup>	On end of breakwater.	.....	16		Skeleton tower .....	Private aid maintained from Apr. 15 to Dec. 1.
	(For Green Bay, see No. 2891)						
	(Chart 14910)						
	Whitefish Point Shoal Buoy 10.....	In 25 feet, on south-east point of shoal. 44 51.9 87 11.4	.....	.....		Red nun .....	Red reflector.
	Jacksonport Shoal Gong Buoy 2.....	In 24 feet .....	.....	.....		Red.....	Red reflector. Nun; wial marker.
		44 57.9 87 09.2					
	WEST SIDE						
	Baileys Harbor (Chart 14909)						
2411	— DIRECTIONAL LIGHT .....	On north shore of harbor.	.....	31		KRW on skeleton tower .....	Shows green from 340.5° to 342.5°, white from 339° to 340.5°; red from 337° to 339°. 1969
	F. W., R. and G. sectors	45 04.2 87 07.1					
2411.10	Bailey Yacht Club Lighted Buoy .. Qk. Fl. G.	In 13 feet .....	.....	.....		Black .....	White reflector. Private aid maintained from Apr. 1 to Nov. 1.
2411.20	BAILEY YACHT CLUB BREAK-WATER LIGHT. F. R.	On end of breakwall ..	.....	6	8	White skeleton tower .....	Private aid maintained from Apr. 1 to Nov. 1. 1971
	Bailey Yacht Club Shoal Buoy 1 ..	In 44 feet .....	.....	.....		Black .....	Private aid maintained from Apr. 1 to Nov. 1.
2411.51	— Entrance Lighted Bell Buoy .... Mo. (A) W.	In 42 feet, in entrance to harbor.	.....	7	.....	Black and white vertical stripes.	Ra ref. Nun; winter marker.
	— Buoy 3 .....	In 28 feet, south side of entrance to harbor.	.....	.....		Black can .....	Green reflector.
	— Buoy 2 .....	In 18 feet, south side of entrance to harbor.	.....	.....		Red nun .....	Red reflector.
	Bailey Yacht Club Buoy GHYC ..	In 26 feet .....	.....	.....		Red and black horizontal bands;	Private aid maintained from 1 Apr. to 1 Nov.
2412	Cone Island Light .....	On island, between Baileys Harbor and North Bay. 45 05.3 87 02.8	.....	18	83	White conical tower connected to dwelling. 86	Light operated throughout the year. 1870
	F. W.						
	North Bay Entrance South Side Buoy 1.	In 24 feet, south side of entrance to bay.	.....	.....		Black can .....	Green reflector.
	North Bay Entrance North Side Buoy 2.	In 24 feet .....	.....	.....		Red nun .....	Red reflector.
	Four-Foot Shoal Buoy 8.....	In 23 feet, on south-east point of shoal off Rowley Bay.	.....	.....		Red nun .....	Red reflector.
	Rowley Bay Buoy 2 .....	In 9 feet, on westerly side of Barkers Reef.	.....	.....		Red nun .....	Red reflector.
	Spider Reef Buoy 6 .....	In 21 feet, off reef south of island.	.....	.....		Red nun .....	Red reflector.
	Rowley Bay East Entrance Buoy 2A.	In 19 feet, off shoal spot.	.....	.....		Red nun .....	Red reflector.
	Rowley Bay Buoy 3 .....	In 30 feet, off shoal.	.....	.....		Black can .....	Green reflector.
	Rowley Bay Buoy 4 .....	In 30 feet, south of shoal.	.....	.....		Red nun .....	Red reflector.

## WEST SIDE

## LAKE MICHIGAN, WISCONSIN AND MICHIGAN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water ground	(6) Structure Daymark	(7) Remarks Year
<b>PORTE DES MORTS PASSAGE</b>						
2413	Porte des Morts Entrance Lighted Bell Buoy. Mo. (A) W.	In 65 feet ..... 45 13.8 86 53.9		7 .. .	Black and white vertical stripes.	Ra ref.
2414	PLUM ISLAND RANGE FRONT LIGHT. F. R.	On southwest side of island. 45 18.2 86 57.2			41 Diamond daymark on white skeleton tower.	1897-1964
2415	PLUM ISLAND RANGE REAR LIGHT. F. R. —Outer Shoal Buoy 1 .....	1,650 feet 331' from front light. In 22 feet, on east side of shoal.			80 White cylindrical tower ..... 65 Black can .....	MKR RBN: 324 kHz. Antenna 1,300 feet north of light. Ra ref. Green reflector. Can; winter marker. 1850-1851
2416	Pilot Island Light .....	In Porte des Morts Passage. 45 17.1 86 55.2		12 48	41 Yellow, red roofs, square tower attached to dwelling.	1850-1851
	Nine-Foot Shoal Buoy 3 .....	In 19 feet, on east side of shoal.			Black can .....	Green reflector.
2417	Waverly Shoal Lighted Bell Buoy 5. Fl. G., 2.5'	In 56 feet, marks north-east edge of shoal.		4 .....	Black .....	Ra ref. Can; winter marker.
<b>DETROIT ISLAND PASSAGE</b>						
2418	— Buoy 2 .....	In 11 feet, on south-			Red sun .....	Red reflector.
	Plum Island Lighted Buoy 1 .....	In 14 feet, on north east point of shoal extending from island.		5 .....	Black .....	Can; winter marker.
<b>DETROIT HARBOR</b>						
2419	— ENTRANCE LIGHT .....	In 8 feet .....		8 25	White skeleton tower .....	Ra ref. HORN: 1 blast ev 10 <sup>s</sup> (1 1/2) Horn operated on daily basis from 6:00 A. M. to 11:30 P. M. when visibility reduced to less than 2 miles. Seasonal from Apr. 1 to Dec. 1 and other times as may be required by local conditions. 1960
	Fl. W., 4'					
2420	— Channel Buoy 2 .....	In 12 feet .....			Red sun .....	Ra ref. Red reflector.
	— Channel Lighted Buoy 4 .....	In 17 feet, on east side of channel at turn.		4 .....	Red .....	Ra ref. Nun; winter marker.
	Fl. R., 4'					
	— Channel Buoy 6 .....	In 16 feet, marks limits of turning basin.			Red sun .....	Red reflector.
	— Channel Buoy 8 .....	In 16 feet, marks limits of turning basin.			Red sun .....	Red reflector.
	— Channel Buoy 10 .....	In 15 feet, marks limits of turning basin.			Red sun .....	Red reflector.
	— Channel Buoy 11 .....	In 16 feet, marks limits of turning basin.			Black can .....	Green reflector.
	Hanks Island Marina Channel Buoys 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19.	In 6 to 9 feet .....			Red and black drums .....	Odd numbered, green reflectors; even numbered reflectors. Maintained from 1 May to 30 Oct. Private aid.
	Njord Heim Channel Buoy .....	In 20 feet .....			Red spar .....	Private aid maintained from May 1 to Nov. 1.
		45 20.0 86 52.8				

## WEST SIDE

## LAKE MICHIGAN, MICHIGAN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.		(4) Nominal Range	(5) Ht. above water	(6) Structure Ht. above ground Daymark	(7) Remarks Year
2421	<i>Fisherman Shoal Lighted Bell Buoy 6.</i> Fl. W., 4 <sup>s</sup>	In 35 feet, on south-east part of shoal. 45 21.6 86 46.2		6	10	Red .....	Ra ref. Nun; winter marker.
ROCK ISLAND PASSAGE							
2422	<i>Pottawotomie Light</i> .....	On northwest point of Rock Island. 45 25.7 86 49.7		8	159	Gray square tower attached to dwelling. 41	1837-1858
2423	<i>Lighted Gong Buoy RI</i> .....	In 79 feet, marks junction of courses at east entrance to Rock Island Passage. 45 26.1 86 44.5		.....	13	Black and white vertical stripes.	Ra ref.
	<i>St. Martin Island Shoals Buoy 2</i> .....	In 31 feet, marks end of shoal.		.....	.....	Red nun .....	Ra ref. Red reflector. Nun; winter marker.
	<i>St Martin Shoal Buoy 4</i> .....	In 26 feet, on south-west point of shoals.		.....	.....	Red nun .....	Red reflector.
	<i>Jackson Harbor East Buoy 2</i> .....	In 24 feet .....		.....	.....	Red nun .....	Red reflector.
2424	<i>Little Gull Island Lighted Bell Buoy 2.</i> Fl. W., 4 <sup>s</sup>	In 54 feet, off south point of shoal.		6	.....	Red .....	Ra ref.
2425	<i>St. Martin Island Light</i> .....	On northeast end of island. 45 30.2 86 45.5		24W 19R	84 75	White hexagonal tower .....	Light is visible from 135° 355°, dark sector covering island. RBN: 302 kHz (m m m). Antenna at light tower. HORN: 2 blasts ev 20 <sup>s</sup> (2 bl-2 <sup>s</sup> +2 bl-14 <sup>s</sup> ). Winter lights: Fl. W., 2.5 <sup>s</sup> . 1905
	<i>Gravelly Island Shoal Buoy 4</i> .....	In 40 feet, off south-west side of shoal.		.....	.....	Red nun .....	Red reflector.
NORTH END							
POVERTY ISLAND PASSAGE							
2426	<i>Poverty Island Light</i> .....	On south part of island. 45 31.7 86 39.8		12	88	NR on skeleton tower. .... 48	1874-1976
(Chart 14908)							
2427	<i>SUMMER ISLAND LIGHT</i> .....	On northeast point of island. 45 34.3 86 37.7		6	38	NR on skeleton tower .....	1954
2428	<i>Wiggins Point Shoal Lighted Bell Buoy 4.</i> Fl. W., 4 <sup>s</sup>	In 30 feet, on east end of shoal off point. 45 50.5 86 16.9		6	.....	Red .....	Ra ref. Nun; winter marker.
Monistique							
2429	<i>Light</i> .....	On east breakwater near outer end. 45 56.7 86 14.8		12	50	Red tower on concrete base ...	HORN: 1 blast ev 30 <sup>s</sup> (3 <sup>s</sup> bl), operates continuously. 1915-1916
2430	<i>WEST BREAKWATER LIGHT</i> ..	On south end of breakwater.		8	36	SB on white skeleton tower, lower portion enclosed, on concrete base.	1914
2431	<i>WEST PIERHEAD LIGHT</i> .....	On outer end of extended pier.		5	25	SB on white skeleton tower on concrete tower.	Higher intensity beam on bearing 018° diminishing to lower intensity beam around remainder of horizon. 1914-1954

NORTH END		LAKE MICHIGAN, MICHIGAN					
(1)	(2)	(3)		(4)	(5)	(6)	(7)
No.	Name Characteristic	Lat. N.	Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure Daymark Remarks
<b>Monistique (Chart 14911)</b>							
2432	<b>Sau Choix Pointe Light</b> ..... Fl. W., 6 <sup>s</sup>	On end of point ..... 45 55.3 85 54.7		28	80	White conical tower connected to red dwelling.	Emergency light nominal range 12 miles. 1892
<b>Port Inland</b>							
2433	—Lighted Bell Buoy 2..... Fl. W., 4 <sup>s</sup>	In 86 feet off entrance to port. 45 54.3 85 52.7		6	.....	Red .....	Ra ref. Nun; winter marker.
2434	—LIGHT..... Fl. R., 5 <sup>s</sup>	On southwesterly end of east pier. 45 57.8 85 52.6		7	48	Red skeleton tower.....	HORN: 1 blast ev 12 <sup>s</sup> (2 <sup>nd</sup> bl). Private aid. 1931
2435	—Radiobeacon.....	On shore, 90 feet 000' from Port Inland Outer Range Front Light. 45 58.1 85 52.6		.....	.....	.....	MKR RBN: 318 kHz. 1943
2436	—OUTER RANGE FRONT LIGHT. F. R.	On shore..... 45 58.1 85 52.6		.....	25	Orange and white square daymark on pile.	Private aid. 1935
2437	—OUTER RANGE REAR LIGHT. F. R.	800 feet 000' from front light. .....		.....	45	Orange and white square daymark on pile	Private aid. 1935
2438	—INNER RANGE FRONT LIGHT. F. R.	On inner end of breakwater. 45 58.2 85 52.2		.....	27	Orange and white square daymark on pile.	Private aid. 1935
2439	—INNER RANGE REAR LIGHT.. F. R.	625 feet 047' from front light. .....		.....	40	Orange and white square daymark on pile.	Private aid. 1935
<b>NORTH END</b>							
2440	<b>Boulder Reef Lighted Bell Buoy 1.</b> Fl. W., 4 <sup>s</sup>	In 33 feet on southwest side of reef. 45 35.2 85 59.0		7	.....	Black.....	Ra ref. Can; winter marker.
2441	<b>GULL ISLAND LIGHT</b> ..... Fl. W., 6 <sup>s</sup> (1 <sup>st</sup> bl)	On dry shoal northwesterly of Gull Island. 45 42.7 85 50.6		11	77	NR on skeleton tower on concrete base.	1928
2442	<b>Lansing Shoal Light</b> ..... Occ. W., 15 <sup>s</sup> (10 <sup>th</sup> bl)	In 25 feet, south of shoal. 42 54.2 85 33.7		20	69	Gray square tower on concrete crib. 59	REN: 302 kHz (mms) V. Antenna at light tower. DIAPHONE: 1 blast ev 30 <sup>s</sup> (3 <sup>rd</sup> bl-27 <sup>th</sup> ai). HORN: Operates when main fog signal is inoperative. Standby light obscured from 110° to 200°. 1928
2443	<b>Garden Island Shoal Lighted Bell Buoy 1.</b> Fl. W., 4 <sup>s</sup>	In 30 feet, marks north-easterly end of shoal. 45 52.1 85 28.5		6	.....	Black.....	Ra ref. Can; winter marker
	<b>Trout Island Shoal Buoy 5.....</b>	In 22 feet, marks west side of shoal.		.....	.....	Black can.....	White reflector.
	<b>Whiskey Island Shoal Buoy 6.....</b>	In 17 feet, on south end of shoal off island.		.....	.....	Red nun.....	Red reflector.
	<b>Whiskey Island Shoal Buoy 4.....</b>	In 17 feet, marks south end of shoal southeast of island.		.....	.....	Red nun.....	Red reflector.
	<b>Squaw Island Shoal Buoy 2.....</b>	In 28 feet, marks east side of shoal east of island.		.....	.....	Red nun.....	Red reflector.
	<b>Squaw Island Shoal Buoy 1.....</b>	In 34 feet, off north end of shoal.		.....	.....	Black can.....	Ra ref. White reflector.
	<b>Potter Reef Buoy 1.....</b>	In 23 feet, marks north-east end of reef.		.....	.....	Black can.....	White reflector.

## NORTH END

## LAKE MICHIGAN, MICHIGAN

(1)	(2)	(3)		(4)	(5)	(6)	(7)			
No.	Name	Location		Nominal Range	Ht. above water	Ht. above ground	Structure	Daymark	Remarks	Year
Port Inland										
	Mille Coquins Inner Reef Buoy 2, ...	In 23 feet, on west end of reef.		.....	....	Red sun .....			Red reflector.	
2444	NAUBINWAY ISLAND LIGHT .....	.....			6	32	NR on white skeleton tower on concrete base.			1931
	Fl. W., 4'	46 04.5	85 26.7							

(For St. Helena Light see No. 2000)

(For Straits of Mackinac, see No. 1398)

## NORTH END

## GREEN BAY, MICHIGAN

(1)	(2)	(3)	(4)	(5)	(6)	(7)			
No.	Name	Location	Nominal Range	Ht. above water	Ht. above ground	Structure	Daymark	Remarks	Year
(Chart 14908)									
	Fairport Five-Foot Shoal Buoy	In 7 feet, on northeast end of shoal, west of Fairport.				Red and black horizontal bands; nun.		Red reflector.	
		45 37.4 86 40.6							
2450	Fayette Lighted Bell Buoy 2 Fl. W., 4 <sup>s</sup>	In 47 feet, marks entrance to Saill Shell Harbor.		6		Red		Ra ref.	
		45 43.3 86 40.3							
	Big Bay de Noc Shoal Buoy 1	In 21 feet, marks south end of shoal off Indian Point.				Black can		Green reflector.	
2451	Drisco Shoal Lighted Bell Buoy 2 Fl. R., 2.5 <sup>s</sup>	In 30 feet at southerly point of shoal.		4		Red		Ra ref. Nun; winter marker	
		45 33.3 86 57.8							
2452	Minneapolis Shoal Light Occ. W., 6 <sup>s</sup> (4 <sup>1</sup> /2)	In 20 feet		16	82	Square cream colored tower on concrete base.		Winter lights, Fl. W., 6 <sup>s</sup> - RBN: 308 kHz (m o m m) W. Antenna at light tower. HORN: 1 blast ev 30 <sup>s</sup> (3 <sup>1</sup> /2). 1935	
		45 34.9 86 59.9							
2453	Corona Shoal Lighted Bell Buoy 4 Fl. R., 6 <sup>s</sup>	In 30 feet, on southwest side of shoal.		5		Red		Ra ref. Nun; winter marker.	
2454	Ford River Shoal Lighted Buoy 5 Fl. W., 4 <sup>s</sup>	In 28 feet, marks southeasterly point of shoal.		6		Black		Ra ref. Can; winter marker.	
LITTLE BAY DE NOC									
(Chart 14915)									
2455.55	Lighted Buoy 8A Fl. R., 4 <sup>s</sup>	In 30 feet, marks 24-foot shoal.		4		Red		Ra ref.	
2456	ESCANABA LIGHT E. Int. W., 6 <sup>s</sup>	Near end of shoal, north of Sand Point, west side of bay.		15	45	White square tower on crib		HORN: 1 blast ev 30 <sup>s</sup> (3 <sup>1</sup> /2). 1938	
		45 44.7 87 02.2							
2457	ESCANABA YACHT HARBOR NORTH PIERHEAD LIGHT F. R. Escanaba Buoy 1	East end of north pierhead, Sand Point.		7	30	Pile		Private aid. 1941	
		In 43 feet, marks northern extremity of obstruction.				Black can		Green reflector.	
2458	Shoal Lighted Buoy 10 Fl. R., 4 <sup>s</sup>	In 20 feet, southwest point of shoal.		4		Red		Ra ref.	
2458.50	C & N ORE DOCK LIGHT 4 F. R. C & N Ore Dock Buoy 1	Center of ore dock No. 6.			8			Private aid. Maintained from May 1 to Jan. 1.	
	C & N Ore Dock Buoy 2	In 14 feet				Black can		Private aid. Maintained from May 1 to Jan. 1.	
	— Traffic Buoy	In 28 feet				Red nun		Private aid. Maintained from May 1 to Jan. 1.	
		At intersection of recommended courses southwesterly of Squaw Point.				Black and white vertical stripes; can.		Ra ref. White reflector.	
2459	SQUAW POINT LIGHT Fl. W., 6 <sup>s</sup>	On west end of point.		8	40	TR on pile on concrete base			1897
		45 49.9 87 00.2				38			
2460	GLADSTONE BREAKWATER LIGHT E. Int. G., 6 <sup>s</sup> Saunders Point Buoy 11	On breakwater			13	Pile		Private aid. 1937-1941	
		In 16 feet				Black can		Green reflector.	
2461	SAUNDERS POINT LIGHT E. Int. G., 6 <sup>s</sup> (3 <sup>1</sup> /2)	On point		9	28	White square daymark on skeleton tower.		Green reflector.	1970
		45 50.9 87 00.1							

## NORTH END

## GREEN BAY, MICHIGAN

(1)	(2)	(3)	(4)	(5)	(6)	(7)			
No.	Name	Location	Nominal Range	Ht. above water	Structure	Daymark	Remarks	Year	
	Sunders Point Shoal Inside Buoy 7.	In 17 feet, on north edge of shoal.			Black can		Green reflector.		
	Kipling Channel Buoy 8	In 24 feet			Red nun		Red reflector.		
	Kipling Channel Buoy 9	In 28 feet			Black can		Green reflector.		
	Kipling Channel Buoy 10	In 18 feet			Red nun		Red reflector.		
	(Chart 14909)								
2462	JACKSON HARBOR LIGHT Fl. R., 4 <sup>s</sup>	Off point north of harbor entrance. 45 24.2 86 51.0		7	20	TR on white pile concrete base.		1976	
	Jackson Harbor Buoy 1	In 12 feet			Black can		Green reflector.		
2463	BOYER BLUFF LIGHT Fl. W., 6 <sup>s</sup>	Northwest end of Washington Island. 45 25.2 86 56.2		8	215	White skeleton tower		1933	
2464	Whaleback Shoal East End Lighted Bell Buoy 4 Fl. W., 6 <sup>s</sup> (1 <sup>st</sup> II)	In 84 feet, on south-east point of shoal. 45 20.8 87 10.1		7		Red	Ra ref. Winter marker; nun.		
	Whaleback Shoal West End Buoy 1.	In 18 feet, marks northwest point of shoal.			Black can		Green reflector.		
2465	CEDAR RIVER PIERHEAD LIGHT Fl. W., 4 <sup>s</sup>	On outer end of west pier. 45 24.4 87 21.1		7	38	SB on white skeleton tower		1889-1922	
	Cedar River Entrance Buoy 1	In 24 feet, marks rock.			Black can		Green reflector.		
	SOUTH END								
	Sister Island Buoy 1	In 34 feet			Black can		Green reflector.		
466	Horseshoe Reef Lighted Buoy 2 Fl. W., 4 <sup>s</sup>	In 24 feet, marks southeast point of reef.		6		Red	Ra ref. Nun; winter marker.		
	Sister Shoals Buoy 3	In 21 feet			Black can		Green reflector.		
467	HORSESHOE ISLAND LIGHT Fl. G., 4 <sup>s</sup>	On southwest point of island. 45 10.6 87 12.7		4	28	NR on pile attached to small house on concrete base.		1947	
	STRAWBERRY CHANNEL								
	— Northeast Buoy 4	In 25 feet, marks east edge of shoal.			Red nun		Red reflector.		
468	EAGLE BLUFF LIGHT Fl. W., 6 <sup>s</sup>	On west point of bluff. 45 10.1 87 14.2		7	76	Yellow, red roof, square tower attached to dwelling.		1868-1909	
	— Southeast Lighted Bell Buoy 6 Fl. R., 4 <sup>s</sup>	In 16 feet, on west side of channel.		4		Red	Ra ref. Nun; winter marker.		
	Strawberry Island Buoy 1	In 32 feet, marks southwest side of adjacent shoal.			Black can		Green reflector.		
170	— Mid-Channel Lighted Buoy Mo. (A) W.	In 40 feet, eastward of Hat Island.		7		Black and white vertical stripes.	Ra ref.		
	Hanover Shoal Buoy 8	In 19 feet, marks southeast end of shoal southeast of Chambers Island.			Red nun		Red reflector.		
	Hat Island South Shoal Buoy 10	In 60 feet			Red nun		Red reflector.		
171	Chambers Island North Shoal Lighted Bell Buoy 1 Fl. W., 4 <sup>s</sup>	In 35 feet, marks shoal at northeasterly end of island. 45 14.4 87 19.8		6		Black	Ra. ref. Can; winter marker.		
172	CHAMBERS ISLAND LIGHT Fl. W., 6 <sup>s</sup>	On west point of small bay, north side of island. 45 12.1 87 21.9		12	97	NR on white tower		1868-1961	

## SOUTH END

## GREEN BAY, MICHIGAN AND WISCONSIN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water Ht. above ground	(6) Structure	(7) Daymark Remarks Year
2473	<i>Chamber Island West Shoal Lighted Bell Buoy 3. Fl. W., 4<sup>s</sup></i>	In 24 feet, at west end of shoal.		6	Black	Ra ref. Can; winter marker.
<b>Menominee</b> (Chart 14917)						
2473.10	—INNER BREAKWATER LIGHT .. Fl. R., 5 <sup>s</sup>	Southerly end of breakwater. 45 06.4 87 36.0		9	21 Pile	Private aid. 1934
2473.50	—PIERHEAD LIGHT .. F. R.	On end of North pier., 45 05.8 87 35.1		14	14 Red octagonal tower on square concrete base.	1877-1927
2473.51	<i>Menominee Shoal Lighted Bell Buoy 2A. Fl. W., 4<sup>s</sup></i>	In 23 feet		7	Red	Ra ref. Nun; winter marker.
2474	—PIERHEAD INNER LIGHT .. F. R.	745 feet 245' from front light.		10	59 TR on red skeleton tower	1916
	—Entrance Buoy 1 ..	In 28 feet, marks shoal extending off point.			Black can	Green reflector.
	—Entrance Buoy 2 ..	In 26 feet, on south side of shoal. 45 06.0 87 34.7			Red nun	Red reflector.
2475	MARINETTE PIERHEAD LIGHT .. Fl. G., 4 <sup>s</sup>	On outer end of south breakwater.		4	25 SG on white pile	1958
	—River Buoy 2 ..	In 12 feet			Red nun	Red reflector.
	—River Buoy 4 ..	In 12 feet			Red nun	Red reflector.
	—River Buoy 5 ..	In 12 feet			Red nun	Red reflector.
	<i>Meechaunee Shoal Buoy 6.</i>	In 24 feet, on east end of shoal south of entrance to Menominee River.			Red nun	Red reflector.
<b>SOUTH END</b> (Chart 14909)						
2476	<i>Green Island Shoal Lighted Buoy 1. Fl. W., 4<sup>s</sup></i>	In 30 feet, marks west- ern limit of shoal.		6	Black	Ra ref. Can; winter marker.
2477	GREEN ISLAND LIGHT .. Fl. W., 6 <sup>s</sup>	On island, near southeast point. 45 03.3 87 29.5		10	80 NR on skeleton tower 65	1863-1956
	Green Island Southeast Shoal Buoy 2	In 98 feet			Red nun	Ra ref. Red reflector.
(Chart 14910)						
	Monument Shoal Buoy 5 ..	In 18 feet, on west of shoal. 44 59.6 87 22.8			Black can	Green reflector.
2478	Peshigo Reef Light .. Fl. W., 6 <sup>s</sup>	In 8 feet, on southeast point of shoal. 44 57.4 87 34.8		10	72 White conical tower on cylindrical base.	HORN: 1 blast 30 <sup>s</sup> (3 <sup>bl</sup> ), operates continuously. operation 1934
2479	<i>Sherwood Point Lighted Bell Buoy 7. Fl. W., 4<sup>s</sup></i>	In 24 feet on northerly side of shoal.		6	Black	Ra ref. Can; winter marker.
2480	Sherwood Point Light .. E. Int. W., 10 <sup>s</sup>	On south side of west entrance to Sturgeon Bay from Green Bay. 44 53.6 87 26.0		16	61 White square tower, dwelling attached. 35	MKRRBN: 286 kHz. Antenna at light tower. HORN: 2 blasts ev 30 <sup>s</sup> (2 <sup>bl</sup> -2 <sup>si</sup> -2 <sup>bl</sup> -24 <sup>si</sup> ) 1883
2481	<i>Sherwood Point Traffic Lighted Bell Buoy. Mo. (A) W.</i>	At intersection of recommended track lines off point.		7	Black and white vertical stripes.	Ra ref.

## SOUTH END

## GREEN BAY, WISCONSIN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water Ht. above ground	(6) Structure Daymark	(7) Remarks Year
(For Sturgeon Bay, see No. 2824)						
	Little Sturgeon Bay Buoy 2.....	In 12 feet, marks shoal water north of entrance to bay.	.....	.....	Red nun .....	Red reflector.
	Little Sturgeon Bay Buoy 3.....	In 12 feet, marks shoal water area to south of entrance to bay.	.....	.....	Black can .....	Green reflector.
2482	<i>Peshigo River Entrance Lighted Bell Buoy 2</i> Fl. W., 4 <sup>s</sup>	Marks mouth of river ..	.....	6 .....	Red .....	Ra ref. Nun; winter marker.
2484	OCONTO HARBOR NORTH PIER-HEAD LIGHT. F. R.	On outer end of north pier head.	.....	16 .....	Red pile .....	Private aid maintained from Apr. 1 to Dec. 1. 1965
2485	OCONTO HARBOR SOUTH PIERHEAD LIGHT. Fl. W., 6 <sup>s</sup>	On end of pierhead .. 44 53.9 87 49.3	.....	8 25 .....	SG on white skeleton tower... 25	1915-1957
2486	OCONTO RIVER INNER LIGHT ... Occ. R., 3 <sup>s</sup> (2 <sup>fl</sup> )	On north pier .....	.....	10 .....	Black pile .....	Private aid maintained from May 1 to Nov. 20.
2487	OCONTO RIVER BREAKWATER LIGHT. F. W.	On end of breakwater, .....	.....	8 .....	Yellow pipe .....	Private aid maintained from Apr. 1 to Dec. 1.
	Sydney C. McLouth Wreck Buoy WR2	In 23 feet, east of "wreck." 44 49.8 87 48.8	.....	.....	Red nun .....	Red reflector.
2488	PENSAUKEE HARBOR LIGHT.... Fl. W., 4 <sup>s</sup>	On east pier..... 44 49.9 87 53.9	.....	7 27 .....	TR on white skeleton tower on concrete base.	1931-1973
2489	<i>Pensaukee Harbor Entrance Lighted Buoy 2</i> Fl. W., 6 <sup>s</sup>	In 12 feet .....	.....	7 .....	Red .....	
2490	<i>Big Saamico Lighted Buoy 1</i> ..... Fl. W., 4 <sup>s</sup>	In 8 feet on south side of entrance to channel. 44 37.8 88 00.2	.....	6 .....	Black.....	Can with white reflector; winter marker.
2491	<i>Big Saamico Lighted Buoy 2</i> ..... Fl. R., 4 <sup>s</sup>	In 8 feet, on north side of channel at bend.	.....	4 .....	Red.....	Nun; winter marker.
GREEN BAY HARBOR						
(Chart 14918)						
2491.50	—Entrance Channel Lighted Buoy 1 Fl. G., 2.5 <sup>s</sup>	In 30 feet .....	.....	4 .....	Black .....	
2491.60	—Entrance Channel Lighted Bell Buoy 2. Gp. Fl. W., 5 <sup>s</sup> 2 flashes.	In 30 feet .....	.....	6 .....	Red .....	
	—Entrance Channel Buoy 3.....	In 30 feet .....	.....	.....	Black can .....	Green reflector.
	—Entrance Channel Buoy 4.....	In 30 feet .....	.....	.....	Red nun .....	Red reflector.
	—Entrance Channel Buoy 5.....	In 30 feet .....	.....	.....	Black can .....	Green reflector.
	—Entrance Channel Buoy 6.....	In 30 feet .....	.....	.....	Red nun .....	Red reflector.
2492	—Entrance Light .....	On west side of channel. 44 39.2 87 54.1	.....	13 72 .....	White conical tower on cylindrical base.	Winter emergency light Fl. W., 6 <sup>s</sup> . RBN:308 kHz (m m) II. Antenna at light tower. HORN: 1 blast ev 15 <sup>s</sup> (2 <sup>bl</sup> ). 1935
	—Entrance Channel Buoy 7.....	In 22 feet .....	.....	.....	Black can .....	Ra ref. Green reflector.
	—Entrance Channel Buoy 10.....	In 22 feet .....	.....	.....	Red nun .....	Red reflector.

## GREEN BAY HARBOR

## GREEN BAY, WISCONSIN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. Ht. above water ground	(6) Structure Daymark	(7) Remarks Year
	— Entrance Channel Buoy 9 .....	In 22 feet .....			Black can .....	Green reflector.
	— Entrance Channel Buoy 12 .....	In 22 feet .....			Red nun .....	Red reflector.
	— Entrance Channel Buoy 11 .....	In 22 feet .....			Black can .....	Green reflector.
	— Entrance Channel Buoy 14 .....	In 22 feet .....			Red nun .....	Red reflector.
	— Entrance Channel Buoy 13 .....	In 23 feet .....			Black can .....	Green reflector.
2493	— Entrance Channel Lighted Buoy 16 Fl. R., 4 <sup>s</sup>	In 20 feet .....		4	Red .....	Ra ref.
2494	— Entrance Channel Lighted Bell Buoy 15. Fl. W., 4 <sup>s</sup>	In 21 feet .....		6	Black .....	Ra ref. Can; winter marker.
	— Entrance Channel Buoy 18 .....	In 21 feet .....			Red nun .....	Red reflector.
	— Entrance Channel Buoy 17 .....	In 23 feet .....			Black can .....	Green reflector.
	— Entrance Channel Buoy 20 .....	In 22 feet .....			Red nun .....	Red reflector.
	— Entrance Channel Buoy 19 .....	In 20 feet .....			Black can .....	Green reflector.
2495	— ENTRANCE CHANNEL LIGHT 22. Fl. R., 2.5 <sup>s</sup>	In 18 feet .....		6	50 TR on skeleton tower .....	1937
2496	— Entrance Channel Lighted Buoy 23 Fl. W., 2.5 <sup>s</sup>	In 21 feet, at turn in channel.		6	Black .....	Ra ref. Can; winter marker.
2497	— Entrance Channel Lighted Bell Buoy 24. Fl. R., 4 <sup>s</sup>	In 21 feet, at turn in channel.		4	Red .....	Ra ref. Nun; winter marker.
	— Entrance Channel Buoy 25 .....	In 24 feet .....			Black can .....	Green reflector.
	— Entrance Channel Buoy 26 .....	In 24 feet .....			Red nun .....	Red reflector.
2498	— ENTRANCE CHANNEL LIGHT 28 Fl. R., 2.5 <sup>s</sup>	In 10 feet, west side of channel. 44 35.1 87 58.6		6	35 TR on pile on crib .....	1848-1973
2499	— Entrance Channel Lighted Buoy 29. Fl. W., 4 <sup>s</sup>	In 23 feet, on east side of turn in channel.		6	8 Black .....	Ra ref. Can; winter marker.
2500	— Entrance Channel Lighted Buoy 30. Fl. R., 4 <sup>s</sup>	In 24 feet .....		4	Red .....	Nun; winter marker.
2501	— Entrance Channel Lighted Buoy 31. Fl. W., 4 <sup>s</sup>	In 23 feet .....		4	Black .....	Ra ref.
	— Entrance Channel 32 .....	In 23 feet .....			Red nun .....	Red reflector.
	— Entrance Channel Buoy 33 .....	In 21 feet .....			Black can .....	Green reflector.
	— Entrance Channel Buoy 34 .....	In 24 feet .....			Red nun .....	Red reflector.
	— Entrance Channel Buoy 35 .....	In 23 feet .....			Black can .....	Green reflector.
2502	— ENTRANCE CHANNEL LIGHT 37. E. Int. W., 6 <sup>s</sup>	On west side of Grassy island. 44 33.5 87 59.6		9	23 SG on skeleton tower .....	Higher intensity up and down channel. 1969
2503	— Entrance Channel Lighted Buoy 36. Fl. R., 6 <sup>s</sup>	In 22 feet .....		5	Red .....	
	— Entrance Channel Buoy 38 .....	In 23 feet .....			Red nun .....	Red reflector.
	— Entrance Channel Buoy 39 .....	In 25 feet .....			Black can .....	Green reflector.
2504	— Entrance Channel Lighted Buoy 40 Fl. R., 2.5 <sup>s</sup>	In 22 feet .....		4	Red .....	Ra ref.
2505	— Entrance Channel Lighted Buoy 41. Fl. W., 4 <sup>s</sup>	In 24 feet .....		6	Black .....	Ra ref. Can; winter marker.
	— Buoy 42 .....	In 25 feet .....			Red nun .....	Red reflector.
	— Buoy 43 .....	In 24 feet .....			Black can .....	Green reflector.
	— Buoy 44 .....	In 24 feet .....			Red nun .....	White reflector.
2506	CHARMIN PAPER MILLS LIGHT... F. G.	On building on north side of East River. 44 30.9 88 00.3		15	Bracket suspended on building..	Private aid maintained from Mar. 1 to Nov. 15. 1951

## FOX RIVER

## FOX RIVER AND LAKE WINNEBAGO, WISCONSIN

No.	(2) Name	(3) Location		(4) Nominal Range	(5) Ht. above water	(6) Ht. above ground	(6) Structure	(7)	Year
	Characteristic	Lat. N.	Long. W.				Daymark	Remarks	
<b>GREEN BAY CITY</b>									
	— Buoy 2 .....	In 22 feet .....				Red nun .....		Red reflector.	
	— Buoy 4 .....	In 22 feet, at junction of southwest side of turning basin and west side of channel.				Red nun .....		Red reflector.	
	— Buoy 6 .....	In 23 feet .....				Red nun .....		Red reflector.	
	— Buoy 7 .....	In 18 feet, at elbow in channel.				Black can .....		White reflector.	
	— Buoy 8 .....	In 21 feet .....				Red nun .....		Red reflector.	
	— Buoy 10 .....	In 18 feet .....				Red nun .....		Red reflector.	
	— Buoy 12 .....	In 20 feet .....				Red nun .....		Red reflector.	
	— Buoy 13 .....	In 21 feet .....				Black can .....		White reflector.	
	— Buoy 14 .....	In 18 feet, at elbow in channel.				Red nun .....		Red reflector.	
	— Buoy 18 .....	In 23 feet .....				Red nun .....		Red reflector.	
	— Buoy 19 .....	In 18 feet, at elbow in channel.				Black can .....		White reflector.	
	— Buoy 20 .....	In 18 feet .....				Red nun .....		Red reflector.	
	— Buoy 22 .....	In 22 feet .....				Red nun .....		Red reflector.	
	— Buoy 24 .....	In 18 feet .....				Red nun .....		Red reflector.	
	De Pere Buoy 26 .....	In 25 feet, on west side of entrance to turning basin.				Red nun .....		Red reflector.	
	— Buoy 27 .....	In 18 feet .....				Black can .....		White reflector.	
<b>DE PERE TO LAKE WINNEBAGO</b>									
<b>LITTLE RAPIDS (Chart 14916)</b>									
	— Buoy 2, 1, 4, 7, 6, 8 .....	In 6 to 10 feet, below Little Rapids.				Even numbered, red nun; odd numbered, black can.		Even numbered, red reflector; odd numbered, white reflector.	
<b>WRIGHTSTOWN</b>									
	— Buoy 10, 12, 14, 16, 18, 19 .....	In 6 to 7 feet, below Rapide Croche Lock.				Even numbered, red nun; odd numbered, black can.		Even numbered, red reflector; odd numbered, white reflector.	
<b>RAPIDE CROCHE</b>									
	— Buoy 21, 25, 26 .....	In 7 to 9 feet, below Rapide Croche Lock.				Even numbered, red nun; odd numbered, black can.		Even numbered, red reflector; odd numbered, white reflector.	
	Rapide Croche Daybeacon 22 .....					TR on skeleton tower .....			
	Rapide Croche Daybeacon 24 .....					TR on skeleton tower .....			
		44 19.1 88 10.9							
		44 19.0 88 11.0							
<b>KAUKAUNA</b>									
	— Buoy 27, 28, 29 .....	In 5 to 10 feet, below Lock 5.				Even numbered, red nun; odd numbered, black can.		Even numbered, red reflector; odd numbered, white reflector.	
07	— LOWER CRIB LIGHT 30 Fl. R., 4 <sup>s</sup> .....	On north side of channel approaching entrance to Lock 5.			4	14	TR on red post on concrete base.		1943-1951
	— Buoy 32, 34 .....	In 8 to 9 feet, below Combined Locks.					Red nun .....	Red reflector.	

DE PERE TO LAKE  
WINNEBAGO

## LAKE WINNEBAGO, UPPER FOX AND WOLF RIVERS, WISCONSIN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.	(4) Nominal Range	(5) Ht. above water	(6) Structure Ht. above ground Daymark	(7) Remarks Year
<b>KAUKAUNA</b>						
2707.09	Combined Locks Buoy 35 CONCRETE STRUCTURE LIGHT J. Qk. Fl. W.	In 6 feet On structure		8	Black can Red and black horizontal bands; pile.	White reflector. Private aid. Maintained from May 1 to Nov. 1.
2707.10	CONCRETE STRUCTURE LIGHT K. Qk. Fl. W.	On structure		8	Red and black horizontal bands; pile.	Private aid. Maintained from May 1 to Nov. 1.
2707.11	CONCRETE STRUCTURE LIGHT L. Qk. Fl. W.	On structure		8	Black and red horizontal bands; pile.	Private aid maintained from May 1 to Nov. 1.
2707.13	CONCRETE STRUCTURE LIGHT N. Qk. Fl. W.	On structure		8	Red and black horizontal bands; pile.	Private aid. Maintained from May 1 to Nov. 1.
2707.12	CONCRETE STRUCTURE LIGHT M. Qk. Fl. W.	On structure		8	Red and black horizontal bands; pile.	Private aid. Maintained from May 1 to Nov. 1.
2707.14	CONCRETE STRUCTURE LIGHT P. Qk. Fl. W.	On structure		8	Red and black horizontal bands; pile.	Private aid. Maintained from May 1 to Nov. 1.
	Cedar Lock Daybeacon 36				TR on skeleton tower	
	Cedar Lock Buoy 38	44 16.8 88 19.5 In 7 feet, marks sub- merged obstruction.			Red nun	Red reflector.
<b>SUNSET POINT</b>						
	— Buoy 40, 42, 44, 46	In 7 to 9 feet, above Kimberly.			Red nun	Red reflector.
	— Upper Buoy 48	In 8 feet			Red nun	Red reflector.
<b>FOX FARM</b>						
	— Buoy 49, 51, 53	In 6 to 9 feet, below Appleton.			Black can	White reflector.
	Appleton Buoy 54	In 8 feet			Red nun	Red reflector.
	Appleton Buoy 56	In 6 feet			Red nun	Red reflector.
	— Buoy 58	In 6 feet			Red nun	Red reflector.
<b>GRIGNON RAPIDS</b>						
	— Buoy 60, 61, 62, 63, 65	In 6 to 9 feet, above Appleton.			Even numbered, red nun; odd numbered, black can.	Even numbered, red reflector; odd numbered, white reflector.
2508	— Lighted Buoy 67 Fl. G., 4 <sup>s</sup>	In 8 feet, marks dredged channel above Appleton.		4	Black	
	— Buoy 68, 69, 70, 72, 73	In 8 to 10 feet			Even numbered, red nun; odd numbered, black can.	Even numbered, red reflector; odd numbered white reflector.
<b>MENASHA</b>						
2509	— Lower Lighted Buoy 76 Fl. R., 4 <sup>s</sup>	In 9 feet, on west side of entrance to chan- nel to Menasha Lock, Little Lake Butte des Morts.		4	Red	
	— Lower Buoy 75	In 6 feet, at entrance to channel to Menasha Lock, Little Lake Butte des Morts.			Black can	White reflector.
	— Lower Buoy 77	In 6 feet			Black can	White reflector.
	— Lower Buoy 78	In 6 feet			Red nun	Red reflector.
	Outfall Buoy WTM	In 6 feet		C.	Black can with red horizontal bands.	Private aid maintained from Apr. 15 to Dec. 15

DE PERE TO LAKE  
WINNEBAGO

## LAKE WINNEBAGO, UPPER FOX AND WOLF RIVERS, WISCONSIN

No.	Characteristic	Location		Nominal Range	Ht. above water	Ht. above ground	Structure	Daymark	Remarks	Year
		Lat. N.	Long. W.							
<b>MENASHA CHANNEL</b>										
	— Buoy 80, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98.	In 7 feet, above Menasha Lock.					Even numbered, red nun; odd numbered, black can.		Even numbered, red re- flector, odd numbered, white reflector.	
	— Upper Buoy 99	In 6 feet, at entrance to Menasha Channel in northwest end of Lake Winnebago.					Black can.		White reflector.	
10	MENASHA UPPER LIGHT 100 Fl. R., 4 <sup>s</sup>	In 7 feet, in northwest end of Lake Winnebago.		4	18		Red triangular daymark on pile.			1942
<b>LAKE WINNEBAGO</b>										
	Lighthouse Reef Obstruction Buoy LHR.	In 8 feet, at entrance to Menasha Channel.					Black and red horizontal bands; can.		White reflector.	
11	Lighthouse Reef Lighted Buoy 1 Fl. G., 4 <sup>s</sup>	In 9 feet, on south- westerly point of reef.		4			Black			
11.50	HIGH CLIFF STATE PARK BREAKWATER LIGHT 1. Fl. G.	On rubble mound			17				Private aid maintained from Apr. 1 to Dec. 1, 1974	
11.51	HIGH CLIFF STATE PARK BREAKWATER LIGHT 2. Fl. R.	On rubble mound.			17				Private aid maintained from Apr. 1 to Dec. 1.	
12	HIGH CLIFF STATE PARK RANGE FRONT LIGHT. F. R.	Public marina. 44 10.0 88 17.7			30		Black and white diamond day- mark.		Private aid.	1964
13	HIGH CLIFF STATE PARK RANGE REAR LIGHT. F. R.	500 feet 043' from front light.			30		Black and white diamond daymark.		Private aid.	1964
<b>NEENAH CHANNEL</b>										
14	— North Bank Lighted Buoy 2 Fl. R., 4 <sup>s</sup>	In 6 feet			4		Red			
	— South Bank Buoy 3	In 6 feet					Black can		White reflector.	
	— North Bank Buoy 4	In 8 feet					Red nun		Red reflector.	
	— South Bank Buoy 5	In 6 feet, marks sub- merged rock mound.					Black can		White reflector.	
	— North Bank Buoy 6	In 6 feet					Red nun		Red reflector.	
	— South Bank Buoy 7	In 8 feet					Black can		White reflector.	
	— North Bank Buoy 8	In 6 feet					Red nun		Red reflector.	
15	KIMBERLY LIGHT Fl. W., 4.5' (2'lt)	On northeast tip of Neenah Point.		10	49		White wooden and brick structure.		Private aid.	1946
	— North Bank Buoy 10	In 7 feet					Red nun		Red reflector.	
<b>LAKE WINNEBAGO</b>										
16	Stevens Reef Lighted Buoy 2 Fl. W., 4 <sup>s</sup>	In 6 feet, on northeily end of reef.			6		Red			
17	Miller Bay Entrance Lighted Buoy 2 Fl. R., 4 <sup>s</sup>	In 7 feet			4		Red			
	Oshkosh Cruiser Dock Channel Buoy 1, 2, 3, 4, 5, 6.	In 5 feet, marks small boat channel in south entrance to Miller Bay. 44 01.4 88 30.8					Odd numbered, black can; even numbered, red nun.		Private aids maintained from May 1 to Oct. 15.	
18	Oshkosh Reef Lighted Buoy 2 Fl. W., 2.5 <sup>s</sup>	In 6 feet			6		Red			
	Oshkosh Reef Buoy 4	In 7 feet					Red nun		Red reflector.	

## LAKE WINNEBAGO

## UPPER FOX AND WOLF RIVERS, WISCONSIN

(1) No.	(2) Name Characteristic	(3) Location Lat. N. Long. W.		(4) Nominal Range	(5) Ht. above water	(6) Structure Ht. above ground Daymark	(7) Remarks	Year
2518.08	FOX RIVER MARDINA SOUTH ENTRANCE LIGHT. Fl. W., 2.5 <sup>s</sup>					On pile	Private aid maintained Apr. 1 to Nov. 1, 1975	
	Fox River Marina South Entrance Buoy 2.	In 9 feet				Red	White reflector. Private aid maintained from Apr. 1 to Nov. 1.	
	Fox River Marina South Entrance Buoy 1.	In 9 feet				Black	White reflector. Private aid maintained from Apr. 1 to Nov. 1.	
2518.10	Mercury Marine Lighted Test Buoy A. Fl. W., 2.5 <sup>s</sup>	In 16 feet				Orange and white horizontal bands.	Private aid. Maintained March 1 to Dec. 15.	
2518.11	Mercury Marine Lighted Test Buoy B. Fl. W., 2.5 <sup>s</sup>	In 22 feet				Orange and white horizontal bands.	Private aid. Maintained March 1 to Dec. 15.	
2518.12	Mercury Marine Lighted Test Buoy C. Fl. W., 2.5 <sup>s</sup>	In 17 feet				Orange and white horizontal bands.	Private aid. Maintained March 1 to Dec. 15.	
2518.13	Mercury Marine Lighted Test Buoy D. Fl. W., 2.5 <sup>s</sup>	In 16 feet				Orange and white horizontal bands.	Private aid. Maintained March 1 to Dec. 15.	
2519	OSHKOSH PIER SOUTH LIGHT F. R.	On end of pier			6	White square daymark on red pile.	Private aid maintained from Apr. to Nov. 1964	
2520	OSHKOSH PIER NORTH LIGHT F. R.	On end of pier			6	White square daymark on red pile.	Private aid maintained from Apr. to Nov. 1964	
2520.50	OSHKOSH PIER WEST LIGHT. F. R.	On end of pier			4	On pile	Private aid maintained from Apr. to Nov. 1974	
2521	Long Point Reef Lighted Buoy 2 Fl. W., 4 <sup>s</sup>	In 17 feet north of northeasterly point of reef.			6	Red		
CALUMET HARBOR								
2522	COLUMBIA PARK LIGHT Fl. W., 6 <sup>s</sup>	On east shore of Lake Winnebago, 43 54.8 88 19.8			16	91 Orange skeleton tower with white spiral ladder.		1937
2523	COLUMBIA RANGE FRONT LIGHT. F. R.	43 54.9 88 19.7				11 White and black horizontal bands on pile.	Private aid.	1947
2524	COLUMBIA RANGE REAR LIGHT F. R.	179 feet 081.5' from front light.				20 White and black horizontal bands on pile.	Private aid.	1947
	— Entrance Buoy 1.	In 8 feet				Black can.	White reflector.	
	— Entrance Buoy 3.	In 9 feet				Black can.	White reflector.	
FOND DU LAC RIVER								
2525	— Channel Lighted Buoy 2 Fl. R., 4 <sup>s</sup>	In 6 feet			4	Red		
	— Channel Buoy 3	In 6 feet				Black can	White reflector.	
	— Channel Buoy 4	In 6 feet				Red nun	Red reflector.	
	— Outfall Sewer Buoy A	In 4 feet				Orange and white horizontal bands.	Private aid maintained from Apr. 15 to Nov. 15.	
	— Outfall Sewer Buoy B	In 5 feet, marks bulk- head at end of outfall sewer.				Orange and white horizontal bands.	Private aid maintained from Apr. 15 to Nov. 15.	
FOND DU LAC MUNICIPAL HARBOR								
2526	— RANGE FRONT LIGHT E. lat. R., 2 <sup>s</sup>	West side of entrance to Fond du Lac Yacht Harbor. 43 47.9 88 25.2				60 White tower 55	Private aid.	1943
2527	— RANGE REAR LIGHT F. R.	South of harbor, 181' from front light.				65 Pole 60	Private aid.	1943
	— Buoys 1, 2, 3, 4, 5, 6	In 4 feet				Old numbered, black can; even numbered, red nun.	Private aids maintained from May 15 to Oct. 1.	

LAKE WINNEBAGO		UPPER FOX AND WOLF RIVERS, WISCONSIN							
(1)	(2)	(3)		(4)	(5)	(6)		(7)	
No.	Name Characteristic	Lat. N.	Long. W.	Nominal Range	Ht. above water	Ht. above ground	Structure Daymark	Remarks	Year
	Fond Du Lac Sailing Club Race Markers A, B, C, D.		In 7 to 10 feet				Orange and white horizontal bands.	Private aids maintained from May 15 to Oct. 1.	
<b>UPPER FOX RIVER</b>									
2528	— Junction Lighted Buoy I. Qk. Fl. W.		At junction of Fox and Wolf Rivers.		6		Black and red horizontal bands.		
<b>BIG BUTTE DES MORTS LAKE</b>									
2529	— Lighted Buoy 2, Fl. R., 4 <sup>s</sup>		In 10 feet		4		Red		
2530	Sunset Point Lighted Buoy 1 Fl. W., 4 <sup>s</sup>		In 10 feet		6		Black		
2531	Butte des Morts Bar Lighted Buoy 4 Fl. W., 4 <sup>s</sup>		Near edge of channel.		6		Red		
2532	Butte des Morts Bar Lighted Buoy 5 Fl. W., 4 <sup>s</sup>		Marks dredged channel.		6		Black		
2533	— Lighted Buoy 6, Fl. R., 4 <sup>s</sup>		In 7 feet		4		Red		
2534	Daggetts Creek Lighted Buoy 8, Fl. R., 4 <sup>s</sup>		In 7 feet		4		Red		
<b>WOLF RIVER</b>									
2535	— Entrance Lighted Buoy 1 Fl. W., 4 <sup>s</sup>		In 10 feet, on south- east side of junction of Fox and Wolf Rivers.		6		Black		
2536	— Lighted Buoy 3 Fl. W., 4 <sup>s</sup>		In 9 feet, at bend in river south of Winneconne.		6		Black		
	Butte Des Morte Buoy 9		In 8 feet				Black can	White reflector.	
	Butte Des Morte Buoy 10		In 8 feet				Red nun	Red reflector.	
<b>LAKE WINNECONNE AND LAKE POYGAN</b>									
<b>GOOSE ISLAND CHANNEL</b>									
2537	— LIGHT 2 Fl. R., 4 <sup>s</sup>		In 7 feet, at turn in course, southeast- erly from Goose Island, Lake Winneconne.		4	11	TR on pile		1977
	— Buoy 4, 6, 8, 10, 12		In 5 feet				Red nun	Red reflector.	
538	— LIGHT 13 Fl. W., 4 <sup>s</sup>		In 7 feet, at turn in Goose Island Channel.		6	9	SG on pile		1977
	— Buoy 15, 16, 18, 19		In 5 feet				Odd numbered, black can; even numbered, red nun.	Odd numbered, white reflector even numbered, red reflector.	
<b>BOOM BAY</b>									
539	— Lighted Buoy 1, Fl. G., 4 <sup>s</sup>		In 8 feet, marks en- trance to Boom Cut.		4		Black		
	— Buoy 3, 5, 7, 9		In 5 feet				Black can	White reflector.	

(For numbers in parentheses, see Column 1 of list; other numbers refer to page numbers. Where unlighted buoys and daybeacons are given the same geographic reference in the list as the aids in parentheses, the page number is omitted.)

INDEX

**A**

Abbreviations ..... V

Adams Point, Lake Huron, Mich. ....(1322)

Addresses of District Offices ..... III

Agate Bay, Two Harbor, Minn. ....128

Ailes Point, Lake Huron, Mich. ....94

Alabaster Tramway Range Front, Lake Huron, Mich. ....(1243)

Alden Island, Minn. ....134

Alexandria Bay Shoal, N. Y. ....13

Algona, Wis. ....(2392-2393)

Allan Otty Shoal, Lake Ontario, N. Y. ....(300)

Allans Narrows, Canada ....(1957)

Allans Reef, Lake of the Woods, Canada .....(1936)

Allouez Bay, Wis. ....(1794-1797)

Allouez Ore Dock No. 3 West, Lake Superior, Wis. ....(1794)

Allouez Ore Dock No. 3 East, Lake Superior, Wis. ....(1795)

Aloha State Park North Jetty, Lake Huron, Mich. ....(1344, 10)

Aloha State Park South Jetty, Lake Huron, Mich. ....(1344, 20)

Alpena, Lake Huron, Mich. ....(1305-1312)

Aluminum Foundry, N. Y. ....I

American Brass Co. Intake, Wis. ....162

American Canal, St. Marys River, Mich. ....(1601-1607)

American Maize Products Intake, Indiana Harbor, Lake Mich. ....155

American Oil Company Intake, Ind. ....155

Amherstburg Channel, Detroit River, Canada. ....(859-895)

Amherstburg Range Front, Canada ....(883)

Amherstburg Reach, Canada ....(883, 888)

Amoco Oil Co., Ill. ....155

Anchor's Away Marina Entrance, Lake Erie, Ohio ....(696, 697)

Angus Island, Canada ....(1890)

Apostle Island Yacht Club Dock, Lake Superior, Wis. ....(1778)

Appleton, Wis. ....179

Acadia Entrance, Mich. ....(2060, 10)

Arco, Mich. ....(2043)

Arrangement of list ..... V

Arrowhead Island, Minn. ....134

Arthur, Port, Lake Superior, Canada ....(1893-1897)

Ash Rapids, Lake of the Woods, Canada ....(1952)

Ashers Small Boat Harbor, Lake Michigan, Wis. ....(2410)

Ashland Breakwater, Wis. ....(1769, 1770)

Ashland Harbor, Lake Superior, Wis. ....(1769-1773)

Atlantic Point, Keweenaw Waterway, Mich. ....(1728)

Au Gres Harbor, Mich. ....(1285, 50, 1285, 60)

Au Sable, Lake Superior, Mich. ....(1671)

Au Sable North Pierhead, Mich. ....(1296)

Au Sable Point, Lake Huron, Mich. ....(1294)

**B**

Bailey Yacht Club, Wis. ....(2411, 10)

Bailey Yacht Club Breakwater, Wis. ....(2411, 20)

Baileys Yacht Club Shoal, Wisc. ....168

Baileys Harbor, Wis. ....(2411-2415)

Baileytown Water Intake Crib, Lake Mich. Ind. ....(2140)

Bald Rock, Minn. ....(1903)

Ballards Reef Channel, Canada ..(896-911)

Ballast Island Channel, Ohio ....(718, 50)

Ballast Island, Lake Erie, Ohio ....(718)

Baltimore Channel, Mich. ....74

Banford Point, St. Lawrence River, Canada .....(269)

Bank Point, Lake Michigan, Mich. ....(2094)

Bar Point Pier, Canada ....(864)

Bar Point Range Front, Canada ....(875)

Barcelona Harbor East Breakwater, N. Y. ....(510)

Barcelona Harbor West Breakwater, N. Y. ....(511)

Barnon Island Passage, Mich. ....130

Bartlett Point to Cape Vincent, Canada and N. Y. ....(256-283)

Battery Park Range Front, Sandusky Bay, Ohio ....(670)

Battle Island, Canada ....(1886)

Baudette Harbor, Minn. ....(1912-1913)

Bay Furnace Directional, Lake Superior, Mich. ....(1677)

Bay Point Marina East, Lake Erie, Ohio. ....(679)

Bay Point Marina East Entrance, Lake Erie, Ohio ....45

Bay Point Marina West, Lake Erie, Ohio ....(680)

Bay Point, St. Clair River, Canada ....(1212, 1213)

Bay Port, N. Y. ....(329, 10-331, 20)

Bay Port Harbor, Lake Huron, Mich. ....82

Bay State Shoal Anchorage Area, Canada ....(197, 198)

Bay View Park, Lake Erie, Ohio ....(771)

Bay View Park Water Gate, Lake Erie, Ohio ....51

Bayfield Channel, St. Marys River, Mich. and Canada ....(1596-1600)

Bayfield Dike, Canada ....(1599)

Bayfield Harbor North Breakwater, Wis. ....(1780)

Bayfield Harbor South Breakwater, Wis. ....(1779)

Bayfield Island Directional, St. Lawrence River, Canada ....(272)

Bayfield Municipal Breakwater, Lake Superior ....(1780, 50)

Bayfield Rock Range Front, Mich. ....(1596)

Bayfield Ruins, Mich. ....122

Baylis Island, Sand Point Lake ....134

Bear Island, Sand Point ....134

Bear Lake Channel, Mich. ....(2093)

Bear Lake Entrance East, Mich. ....(2092)

Bear Lake Entrance West, Mich. ....(2091)

Bearings ..... V

Beaver Creek, Lake Erie, Ohio ....(618-621)

Beaver Harbor, Lake Michigan, Mich. ....(2009, 70, 2010)

Beaver Island, Lake Superior, Minn. ....(1850, 2012)

Beaver Island Shoal Northeast End, Mich. ....(2009)

Beaver Island State Park, Lake Erie, N. Y. ....(459-462)

Bell Buoy Shoal, Canada ....(1920)

Bell Harbor East Entrance East, Lake St. Clair, Mich. ....(1135)

Bell Harbor East Entrance West St. Clair, Mich. ....(1134)

Bell Harbor West Entrance East, St. Clair, Mich. ....(1133)

Bell Harbor West Entrance West, St. Clair, Mich. ....(1132)

Belle Isle, Detroit River, Mich. ....(1005)

Belle Isle North Channel, Mich. ....(1012, 1018-1026)

Belle Isle Upper, Mich. ....(1009)

Belle Isle West End, Mich. ....(1004)

Belmont Harbor, Ill. ....(2303)

Belmont Harbor Inner, Ill. ....(2304)

Belmont Rock Shoal, Ill. ....160

Belvidere Bay, Lake St. Clair, Mich. ....(1100-1109)

Bete Grise Bay Shoal, Mich. ....115

Big American, Rainy Lake, Mich. ....135

Big Bay, Mich. ....151

Big Bay de Noc Shoal, Mich. ....173

Big Bay Harbor West Pier, Mich. ....(1688)

Big Bay Harbor East Pier, Mich. ....116

Big Bay Point, Mich. ....(1687)

Big Boy, Minn. ....(1854)

Big Butte Des Morts Lake, Wis. ....(2529-2534)

Big Point, Mich. ....(1612)

Big Sable, Mich. ....(2067)

Big Shoal, Mich. ....99

Big Six Mile Creek, N. Y. ....(500)

Big Suamico, Wis. ....(2490, 2491)

Billings Entrance East, Ohio ....(689)

Billings Entrance West, Ohio ....(690)

Bink Portage, Canada ....(1930)

Birch Island Shoal Northwest, Mich. ....94

Birch Island Shoal South, Mich. ....94

Birch Point, Mich. ....(1571)

Birch Point, Minn. ....(1919, 10)

Birch Point Range Front, Mich. ....(1639)

Bishop Bay Range Front, Canada ....(1944)

Bishop Point, Lake of the Woods, Canada ....(1946)

Bivo Island, Minn. ....134

Black Creek, Mich. ....(1091-1094)

Black River East Breakwater, Mich. ....(1757)

Black River Entrance, St. Clair River, Mich. ....(1210)

Black River, Lake Superior, Wis. ....120

Black River West Breakwater, Mich. ....(1758)

Black Rock Canal, N. Y. ....(419-439)

Blake Point Five-Foot Shoal, Lake Superior, Mich. ....132

Blake Point, Lake Superior, Mich. ....(1879)

Blue Water Bridge Steering, Canada ....(1216)

Boardman River West Pierhead, Mich. ....(2046)

Bois Blanc, Lake Huron, Mich. ....(1375)

Bolles Harbor, Lake Erie, Canada. ....(785, 50-787)

Boom Bay, For River, Wis. ....(2539)

Booth Island Passage, Mich. ....136

Boulder Reef, Mich. ....(2440)

Bowens Creek, Canada. ....(1186)

Boyer Bluff, Wis. ....(2463)

Braddock Bay Entrance East, N. Y. ....(339)

Braddock Bay Entrance West, N. Y. ....(340)

Braddock Point, Lake Ontario, N. Y. ....(341)

(For numbers in parentheses, see Column 1 of list; other numbers refer to page numbers. Where unlighted buoys and daybeacons are given the same geographic reference in the list as the aids in parentheses, the page number is omitted.)

Bridge Island, Canada	(290)
Bridges, lighting of	IX
Broadcast Notice to Mariners	XVIII
Broadman River West Pierhead, Mich.	(2046)
Broadway Shoal, N. Y.	12
Brockville Yacht Club Racing, Canada	9
Brookford Road Water Intake Crib, Lake Erie, Ohio	51
Brookville Breakwater, Canada	(177)
Brule Narrows, Canada	(1905)
Brule Point, Canada	(1926)
Brush Point Range Front, Mich.	(1633)
Brush Point, St. Marys River, Mich.	(1628, 1630, 1631)
<b>Buckhorn Island Dike, Niagara River, N. Y.</b>	<b>(495-497)</b>
Buckhorn Island Intake Crib, N. Y.	(498)
Buffalo Coast Guard Slip, N. Y.	(411)
Buffalo Harbor, N. Y.	(400-446)
Buffalo Harbor North Entrance, N. Y.	(403-410)
Buffalo Harbor Northside, N. Y.	(407)
Buffalo Harbor Old Breakwater North End, Lake Erie, N. Y.	(409)
Buffalo Harbor South Side, Lake Erie, N. Y.	(408)
Buffalo Intake Crib, Lake Erie, N. Y.	(401)
Buffalo North Breakwater South End, Lake Erie, N. Y.	(410)
Buffalo Outer Harbor, N. Y.	27
Buffalo Point, Lake of the Woods, Canada	(1919)
Buffalo River, N. Y.	(411-418)
Buffington, Ind.	(2153-2158)
Buoys	XI, XII, XIV, XV
Burlington, Mich.	150
Burlington Northern Dock Slip, Lake Superior	123
Burlington Northern East Dock, Wis.	(1796, 10)
Burlington Northern Railroad, Minn.	126
Burlington Northern West Dock, Wis.	(1797)
Burnham Park Harbor, Ill.	(2197)
Burns Harbor, Lake Michigan, Ind.	(2141-2148)
Burns Waterway East Jetty North, Ind.	(2144, 60)
Burns Waterway East Jetty South, Ind.	(2144, 70)
Burns Waterway West Pier, Ind.	(2146)
Burns Waterway West Pier, Ind.	(2145, 2147)
Burnt Island Reef, Mich.	(1418)
Burton Island, Canada	(1921)
Butte Des Morts, Wis.	182
Butte des Morts Bar, Wis.	(2531, 2532)
<b>C</b>	
C & N Ore Dock, Mich.	(2458, 50)
Calcite, Lake Huron, Mich.	(1323-1333)
Call Island Spit, Lake Ontario, N. Y.	18
Calumet Harbor, Lake Winnebago, Wis.	(2522-2524)
Calumet, Lake Michigan, Ill.	(2170-2185)
Calumet River, Ill.	(2184, 2185)
Cana Island, Wis.	(2412)
Canada Island Anchorage Area, Canada	(89, 92)
Canadian Canal Lower Entrance Range Front, Mich.	(1615)
Canadian Canal Upper Entrance Range Front, Mich.	(1617)
Canadian Channel, Canada	(290, 291)
Canadian Channel, St. Marys River, Canada	(1614-1623)
Canadian lights and fog signals	VII
Canal Shoal, Lake Michigan, Wis.	166
Canoe Channel, Rainy Lake, Minn. and Canada	(1901-1903)
Cape Hurd, Canada	(1406)
Cape Vincent to Allan Otty Shoal, N. Y. & Canada	(284-288)
Cape Vincent Breakwater East End St. Lawrence River, N. Y.	(282)
Cape Vincent Breakwater West End, St. Lawrence River, N. Y.	(283)
Capstan Reef, Canada	(1904)
Cargill Grain Elevator, Lake Erie, Ohio	(744, 10-774, 50)
Caribou Island, Canada	(1883)
Carleton Island Leading, St. Lawrence River	(278, 50)
Carleton Island Leading, St. Lawrence River	(278, 50)
Carleton Island South Channel, St. Lawrence River, N. Y.	16
Caseville Harbor, Mich.	(1240-1247, 20)
Cass Island, Mich.	99
Cat Island Steering, St. Lawrence Seaway	(60, 50)
Catamaran Shoal, St. Lawrence Seaway, N. Y.	9
Catawba Cliffs Harbor, Ohio	(723)
Catawba Island, Lake Erie, Ohio	(721)
Catawba State Park Pier, Ohio	(722)
Cattaraugus Creek, N. Y.	(504)
Causeway Range Front, Ohio	(668)
Cedar Point Marina Breakwater, Lake Erie, Ohio	(660)
Cedar Creek, Canada	(825)
Cedar Lock, Wis.	178, 179
Cedar Point Marina Entrance North, Ohio	(658)
Cedar Point Marina Entrance South, Ohio	(659)
Cedar Point Marina South Basin East, Ohio	(661)
Cedar Point Marina South Basin West, Ohio	(662)
Cedar Point, St. Marys River, Mich.	(1635, 1636) 112
Cedar River Entrance, Green Bay, Mich.	174
Cedar River Pierhead, Green Bay, Mich.	(2465)
Cedar Springs Intakes, Canada	(812)
Cedarville East Channel, Lake Huron, Mich.	(1369, 10)
Cedarville West Channel, Lake Huron, Mich.	(1374, 30)
Cedarville Wreck, Lake Huron, Mich.	(1351)
Cemetery Island, Minn.	134
Chagrin West Pier, Ohio	(573, 573, 10)
Chalmers Marina, Mich.	148
Chambers Island, Wis.	(2472)
Chambers Island North Shoal, Mich.	(2471)
Chamber Island West Shoal, Mich.	(2473)
Channel Island, Canada	(1963)
Chantry Island, Lake Huron, Canada	(1404, 50)
Character of lights	V
Charity Island Shoal, Lake Huron, Mich.	(1245, 1246)
Charlevoix, Lake Michigan, Mich.	(2021-2030)
Charm Paper Mills, Fox River, Wis.	(2506)
Chart references	V
<b>Chaumont Bay, Lake Ontario, N. Y.</b>	<b>(305-311)</b>
Chaumont Harbor, Lake Ontario, N. Y.	(307)
Chaumont Shoal, Lake Ontario, N. Y.	(309)
Cheboygan, Lake Huron, Mich.	(1340-1343) 90
Cheboygan Traffic, Lake Huron, Mich.	(1350)
Chenal Ecarte Range Front St. Clair River, Canada	(1172)
Chenal Ecarte Shoal, Mich.	(1171)
Chesney Shoal, Lake Huron, Mich.	99
<b>Chequamegon Bay, Lake Superior, Wis.</b>	<b>(1767, 1768)</b>
Chequamegon Point, Lake Superior, Wis.	(1766)
Cherry Island, Chaumont Bay, N. Y.	(305)
Chicago Harbor, Ill.	(2198-2212)
Chicago Harbor South Side, Ill.	(2187-2197)
Chicago North Side, Lake Michigan, Ill.	(2300-2320, 50)
Chicago River Entrance Basin, Ill.	158
Chicago Sanitary and Ship Canal, Ill.	(2213-2216)
Chimney Island Steering, N. Y.	(157)
Chippawa Channel, N. Y.	(500)
Chippawa, Welland River, Canada	(501)
Chippewa Point Directional, N. Y.	(200)
City of Buffalo Breakwater, N. Y.	(413, 5)
City of Evanston Launch Facility, Ill.	(2312, 50)
Civic Center Marina Entrance North, Mich.	(1002)
Civic Center Marina North, Mich.	(1003)
Civic Center Marina South, Mich.	(1000)
Civic Center Marina South Entrance, Mich.	(1001)
Clark Point, Lake Michigan, Ill.	157
Clayton Municipal Pier, St. Lawrence River, N. Y.	(255)
Clayton Shoal, St. Lawrence River, N. Y.	(253)
Clemson Shoal, Ill.	(2195)
Cleveland Harbor, Lake Erie, Ohio	(582, 605, 10)
Cleveland Intake, Ohio	(581)
Cleveland Waterworks Intake Crib, Ohio	(580)
Clinton, Port, Ohio	(729-741)
Clinton River, Mich.	(1095-1099)
Clinton River Boat Club Entrance, Mich.	75
Clinton River Boat Club South Entrance, Mich.	75
Clinton River Boat Club South, Lake St. Clair, Mich.	75
Club Point Shoal, Lake Huron, Mich.	95
Coal Dock Pierhead, Straits of Machinac, Mich.	(1381)
Coast Guard Radio Stations	XIX
Coburg, Lake Ontario, Canada	(382, 383)
Colborne, Port, Lake Erie, Canada	(800-806)
Colchester Reef, Lake Erie, Canada	(827)
Cole Creek, Keweenaw Waterway, Mich.	(1730)
Collision with or damage to aids	IX
Colony Club Marina North, Lake Erie, Ohio	(726)
Colony Club Marina South, Lake Erie, Ohio	(727)
Columbia Park, Lake Winnebago, Wis.	(2522)
Columbia Range Front, Mich.	(2523)

(For numbers in parentheses, see Column 1 of list; other numbers refer to page numbers. Where unlighted buoys and daybeacons are given the same geographic reference in the list as the aids in parentheses, the page number is omitted.)

Columbia Range Rear, Mich.	(2524)
Columbia Wreck, Lake Michigan, Ill.	159
Combined Locks, Wis.	179
Commonwealth Edison Breakwater, Lake Michigan, Ill.	(2331)
Commonwealth Terminal, Ill.	(2213)
Concrete Structure, Depere to Lake Winnebago	(2707.90-2704.14)
Conneaut Boat Club East, Ohio	(545)
Conneaut Boat Club Range Front, N. Y.	(546)
Conneaut Boat Club West, N. Y.	(544)
Conneaut Harbor, Ohio	539-548
Conran Island, Canada	(179.30)
Conran Island Shoal, Canada	(179)
Consumer Power Company, Mich.	(2072.10-2074)
Consumers Power Company, Lake Michigan, Mich.	(2101, 2102)
Continental Motors Intake, Lake Mich.	(2100)
Continental Oil Company Dock East, Ill.	(2185)
Continental Oil Company Dock West, Ill.	(2184)
Cooley Canal East Breakwater Inner, Ohio	(738)
Cooley Canal East Breakwater Outer, Ohio	(737)
Cooley Canal West Breakwater Inner, Lake Erie, Ohio	(738)
Cooley Canal West Breakwater Outer, Lake Erie, Ohio	(740)
Copper Harbor, Mich.	(1744)
Copper Harbor Entrance, Mich.	119
Copper Harbor Range Front, Mich.	(1745)
Corbett Island Intake Crib, Lake Erie, Ohio	51
Cordwood Point, Lake Huron, Mich.	(1337)
Cornelius Creek Dock, N. Y.	(452)
Cornucopia East Pier, Wis.	(1787)
Cornucopia Harbor, Wis.	(1787, 1788)
Corona Shoal, Green Bay, Mich.	(2453)
Corunna Channel, St. Clair River, Canada	(1199-1202)
Corunna Range Front, Canada	(1200)
Corunna South, Canada	(1199)
Courtright, St. Clair River, Canada	(1189)
Cove Island, Lake Huron, Canada	(1407)
Coyle Point, Canada	(1501)
Crab Island Shoal, Mich.	(1451)
Crescent Marine Pier, Lake Ontario	(308)
Crescent Sail Yacht Club East Lake St. Clair, Mich.	(1075)
Crane Lake, Sand Point Lake	134
Crescent Sail Yacht Club, Lake St. Clair, Mich.	(1073)
Crescent Sail Yacht Club South Entrance, Lake St. Clair, Mich.	(1072)
Crescent Sail Yacht Club West, Lake St. Clair, Mich.	(1074)
Crisp Point, Mich.	(1666)
Croft Island to Leishman Point Canada and N. Y.	(56-110)
Crow Creek, Lake of the Woods, Canada	139

Crow Island Leading, Mich.	(1361)
Crow Point, Lake Huron, Mich.	93
Crow Rock Channel, Canada	(1949)
Crown Intake, Lake Erie, Ohio	(608)
Cube Point, Lake Huron, Mich.	95
Callen Park Range Front, Lake Erie, Ohio	(777)
Cumberland Point, Mich.	130

## D

Daggotts Creek, Wis.	(2534)
Dahlia Shoal, Mich.	142
Daisy Farm, Mich.	131
Dalhousie Range Front, Port, Lake Ontario, Canada	(363)
Dark Hole East Range Front, Manascong Channel, Mich.	103
Dark Hole West Range Front, Manascong Channel, Mich.	(1496)
Davies Reef, Canada	(1947)
Dawson Narrows East Entrance, Canada	(1924)
Daybeacons	XI
Daylight Controls	XII
Depere, Fox River, Wisc.	178
De Pere to Lake Winnebago, Fox River, Green Bay, Wis.	(2507-2510)
Depths	V
DeRottenburg, Canada	(187)
Descriptions of columns	V
Detour Passage, St. Marys River, Mich.	(1450-1452)
Detour Reef, Lake Huron, Mich.	(1450)
Detroit Boat Club, Mich.	(1018)
Detroit Edison Cell, Detroit River, Mich.	(996, 92, 996, 93)
Detroit Edison, Detroit River, Mich.	(1023)
Detroit Harbor, Lake Michigan, Wis.	(2419, 2420)
Detroit Island Passage, Wis.	(2418)
Detroit Lime Co. Detroit River, Mich.	(998)
Detroit River, Mich.	(999)
Detroit River Entrance, Mich.	(850-859)
Devils Gap (Foot), Canada	(1960)
Devils Gap (Head), Lake of the Woods, Canada	(1959)
Devils Island, Lake Superior, Wis.	(1784)
DeWattville Island Range Front, Canada	(189)
Diamond Shamrock Inner, Ohio	(560)
Diamond Shamrock Outer Crib, Ohio	(559.10)
Dickinson Island, Lake St. Clair, Mich.	(1139)
Disposal Area, Lake Erie Ohio	(764.60, 764.70)
Dickinson Marina, Lake Huron, Mich.	81
Distances	V
District Commanders	III
Diversey Yacht Harbor Range Front, Ill.	(2301)
Dollar Island Northwest Shoal, Lake Huron, Mich.	95
Dollar Island Shoal Southeast, Lake Huron, Mich.	95
Dollar Island Southwest, Lake Huron, Mich.	95
Dolomite Point, Port, Lake Huron, Mich.	93
Doran Shoal Range Front, Canada	(75)
Dover, Port, Lake Erie, Canada	(807-809)
Downbound, West Neebish Channel, Mich.	(1526-1568)
Drake Point, Lake Macatawa, Mich.	(2121)
Dredge 906 Wreck, Lake Michigan, Wis.	(2348)

Driftwood Point, Minn.	(1938)
Drisco Shoal, Green Bay, Mich.	(245.2)
Drummond Island Range Front, Canada	(1500)
Drummond Island Shoal, Canada and Mich.	99, 100
Drummond Island-South Side, Mich.	99
Ducks (The), Canada	(370)
Dugway Creek Obstruction, Lake Erie, Ohio	
Duluth Harbor, Minn.	(1808-1817)104
Duluth Marine Terminal East, Minn.	(181.5)
Duluth Marine Terminal South, Minn.	(18186)
Duluth-Superior Harbor, Wis. and Minn.	(1789-1840) 128
Duncan L. Clinch Yacht Harbor, Mich.	(2045)
Dunkirk, N. Y.	(505)
Dunkirk Harbor, N. Y.	(506-512)
Dupont, Lake St. Clair, Mich. & Canada	(1202)
Dupont, St. Lawrence Seaway, Canada	(173)

## E

Eagle Bluff, Green Bay, Wis.	(2468)
Eagle Harbor, Mich.	(177)
Eagle Harbor Range Front, Lake Superior, Mich.	(1748)
East Alpena Channel, Lake Huron, Mich.	(1311, 132.2)
East Center Pierhead, Mich.	(1622)
East Charity Shoal, Lake Ontario, N. Y.	(39.1)
East Charity Shoal Traffic, Lake Ontario, N. Y.	(302)
East Cove Jetty, Lake Erie, Ohio	(665)
East Gate Basin, Minn.	124
East Harbor Entrance, Lake Erie, Ohio	(691, 692)
East Neebish Island Channel, Mich.	(1569-1571)
East Outer Channel, Detroit River, Ohio	(850-851)
East Side, Lake Huron, Canada	(1399-1411)
East Side, Lake Michigan, Mich.	(2008-2134.7.2)
Eastlake Intake Breakwater, Ohio	(5-4)
Ecorse Channel, Detroit River, Mich.	(990, 99.3)
Edgewater Park Inner, Ohio	(605.1D)
Edgewater Park Outer, Lake Erie, Ohio	(603.1D)
Edgewater Park West, Lake Erie, Ohio	(604.1D)
Eighteen Mile Creek Obstruction, Lake Ontario, N. Y.	13
Elba-Mar Boat Club Entrance, Detroit River, Mich.	62
Elba-Mar Boat Club Range Front, Detroit River, Mich.	(95)
Elk Rapids Breakwater, Mich.	(203)
Elk Rapids, Lake Michigan, Mich.	(2036.5)
Elk Rapids Leading, Lake Michigan	(2036.6)
Emerge Point, Lake Ontario, N. Y.	(36)
Emergency for signals	XI
Emergency lights	CI
Enrico Fermi Power Plant Intake, Lake Erie, Canada	(79)
Erie Harbor, Pa.	(513-538.3)
Erie Harbor West Shoal, Lake Erie, Pa.	33
Erie Proving Ground, Lake Erie, Ohio	4
Erie Yacht Club Breakwater, Pa.	(54)
Erie Yacht Club Entrance East, N. Y.	(53)

(For numbers in parentheses, see Column 1 of list; other numbers refer to page numbers. Where unlighted buoys and daybeacons are given the same geographic reference in the list as the aids in parentheses, the page number is omitted.)

Erie Yacht Club Entrance West, N. Y. ... (536)  
 Erie Yacht Club Range Rear, N. Y. ... (536, 20)  
 Escanaba, Green Bay, Wis. .... (2456)  
 Escanaba Yacht Harbor North Pier Head, Green Bay, Mich. .... (2457)  
 Essexville Range Front, Lake Huron, Mich. .... (1268)  
 Euclid Beach Pier, Lake Erie, Ohio ... (577)  
 Euclid Intake, Ohio ... 37  
 Evanston Boat Ramp, Ill. .... 161

F

Fair Haven, Lake St. Clair, Mich. .... (1123)  
 Fair Haven Outer, Lake Ontario, N. Y. .... (328)  
 Fairport Breakwater, Lake Erie, Ohio ... 35  
 Fairport Five Foot Shoal, Mich. .... 173  
 Fairport Harbor, Lake Erie, Ohio ... (558-567)  
 False Ducks Bank, Lake Ontario, Canada (375)  
 False Ducks, Lake Ontario, Canada ... (374)  
 Farwell Avenue Breakwater, Lake Michigan, Ill. .... (2312)  
 Fawn Island Lower End, Canada ... 77  
 Fawn Island, St. Clair River, Mich. .... (1177)  
 Fawn Island Upper End, St. Clair River, Mich. .... (1180)  
 Fayette, Green Bay, Mich. .... (2450)  
 Federal Marine Terminal, Detroit River, Mich. .... 65  
 Feedem Island, Minn. .... 135  
 Ferris Island, Canada ... (1937)  
 Fifty-ninth Street Yacht Harbor North Pier, Chicago Harbor, Ill. .... (2194)  
 Fighting Island (above), Mich. and Canada ... (992-1004)  
 Fighting Island Anchorage, Canada. (994, 996)  
 Fighting Island Channel, Mich. .... (957-967)  
 Fighting Island North, Canada ... (992)  
 Filtration Plant Breakwater North End, Ill. .... (2188)  
 Filtration Plant Breakwater South End, Ill. .... (2187)  
 Fire Island Narrows, Canada ... (1933)  
 Fish Narrows, Canada ... (1927)  
 Fisher Landing, St. Lawrence River, N. Y. .... (245)  
 Fisherman Island Shoal, Mich. .... 143  
 Fisherman Point Range Front, Georgian Bay, Canada ... (1413)  
 Fisherman Shoal, Wis. .... (2421)  
 Flag Island, Canada ... (1941)  
 Fleming Channel, Canada ... (1006)  
 Fog Signals XI, XIV  
 Fond du Lac Municipal Harbor, Wis. .... (2526, 2527)  
 Fond du Lac River, Wis. .... (2525)  
 Fond Du Lac Sailing Club, Wis. .... 182  
 Ford River Shoal, Mich. .... (2454)  
 Ford Shoal, N. Y. .... (327)  
 Ford Yacht Club East Basin Piling, Mich. 61  
 Ford Yacht Club East Basin Range Front, Mich. .... (936)

Ford Yacht Club West Basin Piling, Mich. 61  
 Ford Yacht Club West Basin Range Front, Mich. .... (940)  
 Fort Gratiot, Lake Huron, Mich. .... (1217)  
 Fort Gratiot Range Front, Lake Huron, Mich. .... (1214)  
 Fort Malden Range Front, Detroit River, Canada ... (896)  
 Fort Mississauga, Canada ... (354)  
 Fort Niagara, Lake Ontario, N. Y. ... (349, 351)  
 Forty-Mile Point, Lake Huron, Mich. .... (1333)  
 Foster Avenue Pierhead, Ill. .... (2310)  
 Four-Foot Shoal, Lake Michigan, Wis. .... 168  
 Four-Mile Crib, Lake Michigan, Ill. .... (2200)  
 Fourteen-Foot Shoal, Lake Huron, Mich. .... (1339)  
 Fox Farm, Wis. .... 179  
 Fox River, Wis. .... 180  
 Fox River Marina South Entrance, Wis. .... (2518, 08)  
 Frankfort, Mich. .... (2055-2062)  
 Franssen Island, Minn. .... (1901)  
 Frechette Point, Mich. .... (1583, 50)  
 Frechette Point Range Front, Mich. .... (1580)  
 French Portage Narrows, Canada ... (1948)  
 Frontier Refinery Obstruction N. Y. .... (469, 470)  
 Frying Pan Island, St. Marys River, Mich. .... (1452)

G

Gagnon Point, Minn. .... 134  
 Galloo Island, Lake Ontario, N. Y. .... (317)  
 Galloo Island Shoal, Lake Ontario, N. Y. (316)  
 Galop Island Range Front, N. Y. ... (142, 152)  
 Garden Island Shoal, Mich. .... (2443)  
 Gary, Lake Michigan, Ind. .... (2149-2152)  
 Gaullier Point Shoal Mid-Channel East, Mich. .... 71  
 Gaullier Point Shoal Mid-Channel West, Mich. .... 71  
 Gaullier Point Shoal Outside, Mich. .... (1084)  
 General Mills Co. Dock, N. Y. ... (414-418)  
 Genesee River Turning Basin, N. Y. .... 20  
 Geographic Range Table ... V  
 Georgian Bay, Lake Huron, Canada (1411-1417)  
 Gereaux Island, Canada ... (1416)  
 Gibraltar Point, Lake Ontario, Canada. .... (386)  
 Gibraltar, Detroit River, Mich. .... (952-956)  
 Gill Harbor, Lake Ontario, N. Y. .... 18  
 Gladstone Breakwater, Mich. .... (2460)  
 Goat Island East Shoal, Mich. .... 95  
 Goat Island South Point Reef, Mich. .... 95  
 Goat Island West Shoal, Lake Huron, Mich. 95  
 Guderich (Maine), Lake Huron, Canada. (1401)  
 Guderich North Pier Range Front, Canada (1402)  
 Golden Hill Creek, Lake Ontario, N. Y. (345)  
 Goose Island Channel, Wis. .... (2537, 2538)  
 Goose Island Shoal, Mich. .... (1369, 50)  
 Goose Neck Island Shoals Range Front, Canada ... (83)  
 Gordon Park Boat Basin Entrance North, Ohio ... (583)  
 Gordon Park Boat Basin Entrance South, Ohio ... (584)  
 Gordon Park Entrance, Lake Erie, Ohio (582)  
 Gordon Park Breakwater, Cleveland Harbor, Ohio. .... 38

Goulette Point Canal, Lake St. Clair, Mich. .... (1120-1122)  
 Graham Creek Entrance, Lake Ontario, N. Y. (313)  
 Graham Creek Range Front, Lake Ontario, N. Y. .... (314)  
 Grand Haven, Lake Michigan, Mich. .... (2103-2110, 2111, 2112)  
 Grand Island Harbor, Lake Superior, Mich. 115  
 Grand Island, Lake Superior, Mich. ... (1672)  
 Grand Island Range Front, Niagara River, N. Y. .... (463)  
 Grand Island Range Rear, Niagara River, N. Y. .... (464)  
 Grand Island Harbor West Entrance, Lake Superior, Mich. .... (1678)  
 Grand Marais Harbor of Refuge Inner, Lake Superior, Mich. .... (1770)  
 Grand Marais Harbor of Refuge, Lake Superior, Mich. .... (1669, 50)  
 Grand Marais Harbor of Refuge Outer, Lake Superior, Mich. .... (1669)  
 Grand Marais, Lake Superior, Minn. (1867-1869)  
 Grand Portage Bay Entrance, Minn. ... (1870)  
 Grand River, Lake Michigan ... (2106-2108)  
 Grand Travers, Mich. .... (2031)  
 Grand Traverse Bay, Mich. .... (2031-2051)  
 Grand Traverse Bay Harbor, Mich. ... (1738, 1738, 50)  
 Grand Traverse, Lake Michigan, Mich. (2031-2051)  
 Grand Trunk Car Ferry Slip Range Front, Mich. .... (2089)  
 Grande Pointe, St. Clair River, Mich. .... (1160, 1163)  
 Granite Island, Lake Superior, Mich. ... (1686)  
 Grassy Island, Detroit River, Mich. .... (963)  
 Gravely Island Shore, Lake Michigan, Mich. .... 170  
 Gravely Shoal, Lake Huron, Mich. ... (1247)  
 Grays Reef, Mich. .... (2006)  
 Grays Reef Passage Channel, Mich. .... (2005-2007)  
 Great Duck Island, Lake Huron, Canada. .... (1409)  
 Great Lakes, Ill. .... (2321-2326)  
 Great Lakes Maritime Academy East Pier, Mich. .... (2046, 51)  
 Great Lakes Maritime Academy West Pier, Mich. .... (2046, 50)  
 Great Lakes Steel Corp., Mich. .... (990)  
 Great Lakes Steel Shoal, Detroit River, Mich. .... (966, 10, 966, 20)  
 Green Bay City, Fox River, Wis. .... 178  
 Green Bay Harbor, Wis. .... (2491.50-2506)  
 Green Island, Minn. .... 134  
 Green Island, Green Bay, Wis. .... (2477)  
 Green Island, Lake Erie, Ohio ... (706)  
 Green Island Shoal, Mich. .... (2476)  
 Green Island Southeast Shoal, Wis. .... 175  
 Green Point, Mich. .... (1503)  
 Grignon Rapids, Fox River, Wis. .... (2508)  
 Griswold Street, Detroit, Mich. .... 65  
 Gros Cap Reef, Canada ... (1646)  
 Grosse Ile Basin, Mich. .... 63  
 Grosse Ile South Channel Range Front, Mich. .... (898)  
 Grosse Ile Spit, Mich. .... (969)  
 Grosse Ile Yacht Club Harbor North Entrance, Mich. .... (944)

(For numbers in parentheses, see Column 1 of list; other numbers refer to page numbers. Where unlighted buoys and daybeacons are given the same geographic reference in the list as the aids in parentheses, the page number is omitted.)

Grosse Pointe, Mich. .... (1062-1064)  
 Grosse Pointe Club Dock North, Mich. (1071)  
 Grosse Pointe Club Harbor Entrance East, Mich. .... (1069)  
 Grosse Pointe Club Dock South, Mich. (1070)  
 Grosse Pointe Dumping Ground, Lake St. Clair, Mich. .... 71  
 Grosse Pointe Farms Intake Crib, Mich. (1076)  
 Grosse Pointe Farms, Lake St. Clair, Mich. .... (1077, 1078)  
 Grosse Pointe Harbor Entrance West, Mich. .... (1068)  
 Grosse Pointe Yacht Club, Mich. .... (1079)  
 Grosse Pointe Yacht Club Outer Breakwater, Mich. .... (1080-1082)  
 Grosse Yacht Club Harbor South Entrance, Mich. .... (943)  
 Grossepoint, Ill. .... (2313)  
 Grossepoint Outer, Ill. .... (2320)  
 Grubb Reef, Lake Erie, Canada .... (816)  
 Gull Island, Lake Michigan, Mich. .... (2441)  
 Gull Island, Lake Superior, Wis. .... (1762)  
 Gull Island Shoal, Lake Erie, Ohio. .... (714)  
 Gull Island Shoal South, Lake Huron, Mich. 96  
 Gull Rock, Lake of the Woods, Canada (1962)  
 Gull Rock, Lake of the Woods, Minn. (1915)  
 Gull Rock, Lake Superior, Mich. .... (1742)  
 Gull Rock Shoal, N. Y. .... (258, 50)  
 Gull Rocks, Canada .... (1907)

## H

Hackett Reach, Detroit River, Canada .... (867-882)  
 Hamel Point, Lake Huron, Mich. .... 93  
 Hammermill Intake East, Erie Harbor, Pa. .... (514)  
 Hammond Bay Harbor of Refuge East Breakwater, Mich. .... (1334)  
 Hammond Bay Harbor of Refuge West Breakwater, Mich. .... (1335)  
 Hammond Intake Crib, Ind. .... (2170)  
 Hammond Shoal, St. Lawrence River .... 12  
 Hanks Island Marina Channel, Lake Michigan, Mich. .... 169  
 Hanover Shoal, Wis. .... 174  
 Harbor Beach, Lake Huron, Mich. (1235-1237)  
 Harbor Island Shoal, Lake Huron, Mich. 99  
 Harbor Lodge Range Front, Lake Huron, Mich. .... (1319)  
 Harbor Springs Range Front, Mich. .... (2017)  
 Harwood Point East Range Front, Mich. 103  
 Harwood Point West Range Front, Mich. (1498)  
 Harlem Reef, Mich. .... 131  
 Harrington Island, Keweenaw Waterway, Mich. .... (1731)  
 Harrison Marina, Ohio .... 51  
 Harrisville East Breakwater, Mich. .... (1298)  
 Harrisville West Breakwater, Mich. .... (1299)  
 Harsens Island, Mich. .... (1058, 1060, 1150)  
 Harsens Island Range Front, Mich. .... (1152)  
 Harts Landing, St. Clair River, Mich. .... (1187, 1188)

Haskell Shoal, Canada .... (212)  
 Hat Island South Shoal, Green Bay, Wis. ...174  
 Hay Point Range Front, Canada .... (1475)  
 Hay Point Reef, Mich. .... (1464)  
 Head of Detroit River, Mich. .... (1004-1026)  
 Hearding Island Channel Entrance, Minn. 125  
 Heenan Point (Needles Point), Canada .. (1955)  
 Heights and Depths ..... V  
 Hen Island Winter, Mich. .... (1504, 25)  
 Henderson Bay, Chaumont Bay, N. Y. .... (312-315)  
 Henderson Harbor Special Anchorage, Chaumont Bay, N. Y. .... (312.10-312.80)  
 Hercules Powder Co., Mich. .... 81  
 Hessel Crib, Lake Huron, Mich. .... 95  
 Hessel Point, Lake Huron, Mich. .... 95  
 Hickory Island Channel, Mich. .... (934-956)  
 High Cliff State Park Breakwater, Mich. .... (2511.50, 2511.51)  
 High Cliff State Park Range Front, Lake Winnebago, Wis. .... (2512)  
 Highland Park Obstruction, Ill. .... (2320.50)  
 Hill Island Mid-Channel, Lake Huron, Mich. 93  
 Hill Island South End, Lake Huron, Mich. 93  
 Hills Point Shoal, Lake Huron, Mich. .... 94  
 Hitchcock Bay, Minn. .... 136  
 Hitchcock Island, Minn. .... 136  
 Hog Island Reef, Mich. .... 142  
 Holland Harbor, Mich. .... (2113-2122)  
 Hollywood Avenue Breakwater, Lake Michigan, Ill. .... (2311)  
 Holmes Point to Deer Island, Canada and N. Y. .... (180-218)  
 Hooker Electrochemical Crib, Lake Erie, N. Y. .... (499)  
 Hope Island, Georgian Bay, Canada. .... (1415)  
 Horse Island North Channel North, Detroit River, Mich. .... (952)  
 Horse Island North Channel South, Detroit River, Mich. .... (951)  
 Horse Island South Channel, Detroit River, Mich. .... (947-951)  
 Horse Rock East, Mich. .... 94  
 Horse Rock South, Mich. .... 94  
 Horse Rock Southeast, Mich. .... 94  
 Horse Rock Southeast Shoal, Mich. .... 94  
 Horseshoe Island, Mich. .... (2467)  
 Horseshoe Pond Midchannel, Lake Erie, Pa. .... 33  
 Horseshoe Reef, Green Bay, Wis. .... (2466)  
 Houghton Point, Wis. .... (1767)  
 Howards Bay, Lake Superior, Mich. .... 126  
 Huron Harbor, Lake Erie, Ohio (624-628.51)  
 Huron Island, Mich. .... (1690)  
 Huron Car Ferry, Port, Mich. .... (1209.80)  
 Huron River Mooring Basin North, Ohio .... (628.50)  
 Huron River Mooring Basin South, Ohio .... (628.51)  
 Huron Traffic, Port, St. Clair River, Mich. .... (1211)  
 Huron Portland Cement Co. Channel Range Front, Mich. .... (1311)  
 Huron River Mooring Basin North, Lake Erie, Ohio .... (628.50)  
 Hyde Park Shoal, Lake Michigan, Ill. ... 157

## I

Ile Aux Gales, Mich. .... (2008)  
 Ile Aux Galets East End, Mich. .... 141  
 Ile Pariente, Canada .... (1660)

Illinois Waterway, Ill. .... (2213-2216)  
 Indian Island, Sand Point Lake .... 134  
 Indiana Harbor, Ind. .... (2160-2169)  
 Indiana Harbor Boat, Club North Ind. .... (2158)  
 Indiana Harbor Boat Club South, Ind. .... (2157)  
 Indiana Harbor South Bulkhead, Ind. .... (2159)  
 Indiana Shoal, Ind. .... (2148)  
 Industrial Rayon Corp., Lake Erie, Ohio. (557)  
 Inland Port, Mich. .... (2433-2444)  
 Intake Pipe, Mich. .... 67  
 Interference with aids to Navigation ..... XI  
 International Boundary, Lake Erie. (709-711, 829) 47  
 International numbers. .... V  
 Iris Boat Shop, Lake Michigan, Mich. .... (2022.50, 2022.51)  
 Iroquois Approach Range Front, St. Lawrence River, Canada .... (124)  
 Iroquois Lock, Canada .... (132.20)  
 Iroquois Lock Range Front, St. Lawrence River Canada. .... (120)  
 Irvine Point Range Front, St. Lawrence River, Canada. .... (776)  
 Island D-92, Lake of the Woods, Canada. (1958)  
 Isle Isidore, Lake Huron, Mich. .... (1368)  
 Isle Royale, Lake Superior, Mich. (1872, 1874, 1880)

## J

Jackson Harbor East, Rock Island Passage Mich. .... 70  
 Jackson Harbor, Green Bay, Wis. .... (2452)  
 Jackson Park Yacht Harbor Middle, Ill. (219) 1  
 Jackson Park Yacht Harbor North Side, Ill. .... (2192)  
 Jackson Park Yacht Harbor Outer, Ill. (2190)  
 Jackson Park Yacht Harbor South Side, Ill. .... (2193)  
 Jacksonport Shoal, Wis. .... 68  
 Jarvis Rock, Lake Superior, Canada .... (1896)  
 Jefferson Avenue East Abutment, Ohio. .... (601.50)  
 Jefferson Avenue West Abutment, Ohio (601.51)  
 Jerry's Marina, Lake Huron, Mich. .... 86  
 Jerry's Marina Range Front, Mich. .... (1290)  
 Jim's Place East, Ohio .... (94)  
 Jim's Place West, Ohio .... (95)  
 Johns-Manville Intake Crib, Wis. .... (232)  
 Johnsons Point, St. Marys River, Mich. (1490)  
 Johnsons Shoal, Lake Ontario, N. Y. .... (396)

## K

Kabetogama Lake, Minn. .... 135  
 Kabetogama Lake, Minn. .... 135  
 Kansas Avenue, Lake Erie, Ohio. .... 99  
 Kaukauna, Fox River, Wis. .... (2507) 19  
 Kawkawlin Channel, Lake Huron, Mich. .... 5  
 Keewatin East Channel Entrance, Canada .... (19.60)  
 Kelleys Island, Ohio .... (71)  
 Kelleys Island Shoal, Lake Erie, Ohio. .... (71)  
 Kellstone Crib, Lake Erie, Ohio. .... (73)  
 Kenosha, Wis. .... (2334-2336.50)  
 Kessel Point Steering, St. Clair River, Canada .... (1122)  
 Kettle Channel, Rainy Lake, Minn. .... (1900) 1907  
 Kettle Point, Lake Huron, Canada .... (1400)  
 Kettle Point Reef, Lake Huron, Canada (139) 7  
 Kewaunee, Lake Michigan, Wis. (2388-239) 7

(For numbers in parentheses, see Column 1 of list; other numbers refer to page numbers. Where unlighted buoys and daybeacons are given the same geographic reference in the list as the aids in parentheses, the page number is omitted.)

Keweenaw Bay, Mich. ....	(1692)
Keweenaw Point, Mich. ....	(1741)
Keweenaw Upper Entrance, East Revetment, Lake Superior, Mich. ....	(1752)
Keweenaw Upper Entrance, Lake Superior, Mich. ....	(1750)
Keweenaw Upper Entrance West Breakwater, Lake Superior, Mich. ....	(1753)
Keweenaw Upper Entrance West Revetment, Lake Superior, Mich. ....	(1753)
Keweenaw Waterway, Mich. ....	(1693-1737)
Killarney East, Georgian Bay, Canada. ....	(1417)
Kimberly, Wis. ....	(2515)
King Williams Narrows, Sand Point Lake. ....	134
Kipling Channel, Mich. ....	174
Knife River Harbor, Lake Superior, Minn. ....	(1841)
Knox Island, Minn. ....	135
Kubel Island, Minn. ....	134
L	
L'Anse Bay Shoal, Lake Superior, Mich. ....	116
L'Anse Wreck, Lake Superior, Mich. ....	110
LaPointe, Lake Superior, Mich. ....	(1764)
LaSalle Yacht Club Pier East, N. Y. ....	(489)
LaSalle Yacht Club Pier West, N. Y. ....	(490)
Lac La Belle North Pierhead, Mich. ....	(1740)
Lac La Belle South Pierhead, Mich. ....	(1739)
Lackawanna, Buffalo Harbor, N. Y. ....	(443)
Lackawanna Dumping Ground, N. Y. ....	(502)
Lackawanna West Pierhead, Lake Erie, N. Y. ....	(444)
Lake Charlevoix Dock North, Mich. ....	(2023)
Lake Charlevoix Dock Range Front, Mich. ....	(2024)
Lake Charlevoix Dock South, Mich. ....	(2026)
Lake Charlevoix (South Arm), Mich. ....	(2028, 2029)
Lake County Inner Crib, Lake Erie, Ohio ....	(560)
Lake County Outer Crib, Lake Erie, Ohio ....	(559, 10)
Lake George, Mich. ....	(1569-1574)
Lake George Channel, Mich. ....	(1572-1574)
Lake Huron Cut, Mich. ....	(1220-1231)
Lake Macatawa, Mich. ....	(2117-2127)
Lake Michigan, Mich. ....	(2001-2007)
Lake Michigan Yachting Association, Ill. ....	(2195, 40, 2195, 60, 2200, 51, 2309, 51)
Lake Muskegon Range Front, Mich. ....	(2087)
Lake Nicolet, Mich. ....	(1516-1525, 1575-1584)
Lake of the Woods, Minn. and Canada. ....	(1914-1964)
Lake Ontario, East End, N. Y. ....	(300-304, 316-318, 80)
Lake St. Clair, Mich. and Canada ....	(1027-1047, 1062-1147, 1151)
Lake Winnebago, Wis. ....	(2511-2527)
Lake Winneconne and Lake Poygan, Wis. ....	(2537-2539)

Lakeshore Terminal, Mich. ....	(1303)
Lakeshore Terminal Co. Range Front, Lake Huron, Mich. ....	(1300)
Lakeside Association Dock, Lake Erie, Ohio. ....	(685)
Lakeside & Forest City Yacht, Lake Erie, Ohio. ....	37
Lakeside Small Boat Harbor East Breakwater, Lake Erie, Ohio. ....	(687)
Lakeside Small Boat Harbor West Breakwater, Ohio. ....	(688)
Lakeside Yacht Club Entrance North, Lake Erie, Ohio. ....	(591)
Lakeside Yacht Club Entrance South, Lake Erie, Ohio. ....	(592)
Lakeview Park Obstruction, Ohio. ....	(2442)
Lanning Shoal, Mich. ....	(2044)
Latitude and longitudes. ....	V
Lee Point, Mich. ....	(2038)
Lee Point Shoal, Lake Michigan, Mich. ....	144
Leishman Point to Ogdensburg, Canada and N. Y. ....	(111-165)
Leland Harbor, Mich. ....	(2048, 2049)
Leonard Inc. Mich. ....	(2044)
Les Cheneaux Islands, Mich. ....	(1362, 1363, -1372, 1373)
Les Cheneaux Islands Middle Entrance, Mich. ....	94
Les Cheneaux Islands West Entrance, Mich. ....	(1370, 1371)
Lewis Entrance, St. Clair, Mich. ....	(1116, 50, 1116, 60)
Lichen Island, Canada. ....	(1902)
Lexington Harbor, Lake Huron, Mich. ....	(1232-1233)
Lights. ....	X, XI
Lighthouse Reef, Wis. ....	(2511)
Light Lists. ....	VI
Light Rhythms. ....	XII
Lighthouse Reef Obstruction, Wis. ....	180
Lights on fixed structures. ....	X
Light sectors. ....	V
Lily Pond Leading, Keweenaw Waterway, Mich. ....	(1735)
Lily Pond North, Mich. ....	(1737)
Lily Pond South, Mich. ....	(1736)
Line Barrel Shoal, Lake Ontario, N. Y. ....	(312)
Lime Island, Mich. ....	(1458, 10, 1460, 1461)
Lime Island Traffic, St. Marys River, Mich. ....	(1459)
Linekiln Crossing Channel, Detroit River, Canada. ....	(889-895)
Linekiln Crossing Range Front, Canada. ....	(890)
Lincoln Park Gun Club, Ill. ....	160
Lincoln Park North Breakwater, Ill. ....	(2307, 20)
Lincoln Park South Breakwater, Ill. ....	(2307, 10)
Little Bay de Noc, Mich. ....	(2455, 55-2461)
Little Cass Island, Mich. ....	99
Little Gull Island, Mich. ....	(2424)
Little Lake Harbor of Refuge East Breakwater, Lake Superior, Mich. ....	(1668)
Little Lake Harbor of Refuge West Breakwater, Lake Superior, Mich. ....	(1667)
Little Manitou Island, Wis. ....	(1782)
Little Rapids Channel, Mich. ....	109
Little Rapids Cut, Mich. ....	(1585-1578, 1588-1595)
Little Rapids, De Pere to Lake Winnebago, Wis. ....	178
Little River Range Front, Lake Erie, N. Y. ....	(487)

Little Sable, Mich. ....	(2074)
Little Sturgeon Bay, Wis. ....	176
Little Traverse, Mich. ....	(2013)
Livingstone Channel, Mich. ....	(912-928)
Livingstone Channel Upper Entrance, Mich. ....	(904)
Livingstone Memorial, Mich. ....	(1007)
Locke Point, Mich. ....	132
Lockport Intake Crib, N. Y. ....	(483)
Long Beach Range Front, Lake Erie, Ohio. ....	(734)
Long Beach Range Rear, Ohio. ....	(735)
Long Island Shoal Northwest, Mich. ....	94
Long Island Shoal Southeast, Mich. ....	94
Long Point, Lake Erie, Canada. ....	(809)
Long Point Reef, Wis. ....	(2521)
Loaz Marina Inner, Ohio. ....	(718, 60)
Loaz Marina, Ohio. ....	(718, 50-718, 51)
Lorain Harbor, Lake Erie, Ohio. ....	(610-617)
Lower Entrance, Canadian Channel, Canada. ....	(1614)
Lower Nicolet East Range Front, Mich. ....	103
Lower Nicolet East Range Rear, Mich. ....	105
Lower Nicolet West Range Front, Mich. ....	(1516)
Lower Nicolet West Range Rear, Mich. ....	(1517)
Lower River, St. Marys River, Mich. ....	(1453-1472)
Lucas Island, Canada. ....	(1408)
Ludington, Mich. ....	(2068-2072)
Luminous Range. ....	V
Luminous Visibility Diagram. ....	VII
Lyal Island, Lake Huron, Canada. ....	(1405)

M

Mackenzie Island, Rainy Lake Canada. ....	(1904, 50)
Mackinac Bay Passage, Mich. ....	95
Mackinac Bridge, Lake Huron, Mich. ....	(1394, 1395, 1396-1398)
Mackinac City State Pier, Mich. ....	(1353)
Mackinac Island Ferry, Mich. ....	(1352)
Mackinac City, Mich. ....	(1354)
Mackinac City Harbor Entrance, Mich. ....	(1357, 1358)
Mackinac Island East Breakwater, Mich. ....	(1377)
Mackinac Island West Breakwater, Mich. ....	(1378)
Madeline Island Breakwater, Lake Superior, Wis. ....	(1777)
Madeline Island, Lake Superior, Mich. ....	(1765)
Madeline Island Marina Entrance North, Lake Superior, Wis. ....	(1774)
Madeline Island Marina Entrance South, Lake Superior, Wis. ....	(1773)
Main Dock Island, Lake Ontario, Canada. ....	(369, 370)
Maitland, St. Lawrence Seaway, Canada. ....	(174)
Majors Shoal East, Lake Huron Mich. ....	96
Majors Shoal, Lake Huron, Mich. ....	(1385)
Malone Bay, Mich. ....	131
Malone Bay Entrance, Mich. ....	131
Mamajuda, Detroit River, Mich. ....	(959)
Mamajuda Shoal, Detroit River, Mich. ....	(958)
Manhattan Range Front, Maumee Bay, Ohio. ....	(750)
Manistee, Mich. ....	(2063-2067)
Manistique, Mich. ....	(2429-2432)
Manitou, Lake Superior, Mich. ....	(1743)
Manitou Paymen Shoal, Mich. ....	441
Manitowoc, Wis. ....	(2379-2382)

(For numbers in parentheses, see Column 1 of list; other numbers refer to page numbers. Where unlighted buoys and daybeacons are given the same geographic reference in the list as the aids in parentheses, the page number is omitted.)

Marathon Oil Company, Mich. ....	(1085)
Marblehead, Lake Erie, Ohio ....	(681)
Mariatown Approach Range Front, Canada	(106)
Mariatown Range Front, Canada ....	(100)
Mariatown Range Rear, Canada ....	(101)
Marina Shoal, Lake Superior, Wis. ....	122
Marine City Dock Lake Erie, Ohio ....	(693)
Marine City Salt Dock, St. Clair River, Mich. ....	(1178)
Marine City Shoal, Mich. ....	(1179)
Marquette Pierhead, Wis. ....	(2475)
Marion Island North Shoal, Mich. ....	144
Marion Island South Shoal, Mich. ....	144
Marquette Bay South Shoal, Mich. ....	115
Marquette Breakwater Inner, Mich. ....	(1681)
Marquette Breakwater Outer, Mich. ....	(1680)
Marquette Dock Company, Mich. ....	115
Marquette Harbor, Mich. ....	115
Marquette, Lake Superior, Mich. ....	(1679)
Marquette Power and Light Range Front, Lake Superior, Mich. ....	115
Marquette Rocks, Lake Superior, Mich. ....	115
Martin Drain Outer, Lake St. Clair, Mich. ....	(1089)
Martin Island, Minn. ....	135
Martin Reef, Lake Huron, Mich. ....	(1359)
Material Service Wreck, Lake Michigan, .....	156
Maumee Bay, Ohio ....	(742-784)
Maumee River, Ohio ....	(770-778)
Maybury Highway, St. Clair River, Canada ....	(1145)
McCargoe Cove Entrance, Mich. ....	131
McCoy Island, Canada ....	(180)
McKay Bay, Lake Huron, Mich. ....	(1364)
McKay Bay North Shoal, Mich. ....	93
McKay Bay Range Front, Lake Huron, Mich. .....	(1365)
McKay Bay South Shoal, Mich. ....	93
McKinley Park, Wis. ....	(2365)
McKinley Park Jetty, Wis. ....	(2364)
McKinley Park Shoal, Wis. ....	164
McNair Island, Canada ....	(176)
Medusa Channel Breakwater, Lake, Mich. .....	(2029-50)
Medusa Port, Lake Michigan, Mich. ....	143
MEJ Corporation Breakwater, Lake Erie, Ohio .....	(685-50, 686)
Memorial Park Marina East Entrance, Mich. .....	(1020)
Memorial Park Marina, Lake St. Clair River .....	(1021)
Memorial Park Marina West Entrance, Mich. .....	(1019)
Menasha Channel, Wis. ....	(2510)
Menasha, Wis. ....	(2509)
Menasha Upper, Wis. ....	(2510)
Menominee Shoal, Green Bay, Wis. ....	(2473-51)
Menominee, Green Bay, Mich. ....	(2473-10-2481)
Menominee Shoal, Green Bay, Mich. ....	(2473-51)
Mentor Harbor Yacht Club Range Front, Ohio .....	(571)

Mentor Harbor Yacht Club Range Rear, Ohio .....	(572)
Mentor Inner East Breakwater, Lake Erie, Ohio .....	(570)
Mentor Outer East Breakwater, Ohio ....	(569)
Mezaries Reef, Canada ....	(1964)
Mercury Marine, Wis. ....	(2518-10-2518-13)
Michigan City, Ind. ....	(2135-2144-50)
Michigan Island Route, Lake Huron, Mich. ....	(1344-1349)
Mica Island, Minn. ....	134
Michigan Island, Lake Superior, Wis. ....	(1763)
Michipicoten Harbor, Canada ....	(1882)
Michipicoten Island, Canada ....	(1884)
Micrometer Island, Canada ....	(1950)
Middle Bass Island East Shoal, Lake Erie .....	(715)
Middle Channel Entrance, Lake St. Clair, Mich. ....	(1136-1139)
Middle Channel, Lake St. Clair, Mich. ....	75
Middle Ground, Lake Michigan ....	(2120)
Middle Harbor Shoal, Lake Erie, Ohio .....	(693-50)
Middle Island, Lake Huron, Mich. ....	(1315)
Middle Island Passage, Lake Superior, Mich. ....	(1878)
Middle Neebish Channel, Mich. ....	(1505-1515)
Middle Neebish South Range Front, Mich. .....	(1508)
Middle Neebish South Range Rear, Mich. ....	(1509)
Middle Reef, Niagara River, Canada ....	(447)
Middle Sister Island, Canada ....	(828)
Milk River Drain, Mich. ....	(1083)
Miller Coquins Inner Reef, Wis. ....	172
Miller Bay Entrance, Wis. ....	(2517)
Miller Marina, Lake St. Clair, Mich. ....	(1088)
Miller Memorial, Mich. ....	(1087-51)
Milwaukee, Wis. ....	(2350-2367)
Milwaukee South Point, Wis. ....	(2349)
Mink Point, Canada ....	(1895)
Minneapolis Shoal, Mich. ....	(2452)
Minnesota Point Park, Minn. ....	124
Minner Bay Northwest, Lake Huron, Mich. 95	
Miner Bay Southeast, Lake Huron, Mich. 95	
Mission Point, Grand Traverse Bay, Mich. ....	(2035)
Mission Point, Strait of Mackinaw, Mich. ....	(1376)
Mississagi Strait, Lake Huron, Canada ....	(1410)
Missouri Portland Cement Co. Dock, Lake Michigan, Ill. ....	(2215)
Monkey Rocks Reef, Canada ....	(1943)
Monroe Harbor, Lake Erie, Mich. ....	(788-791)
Montrose Breakwater, Ill. ....	(2305)
Montrose Harbor East Breakwater, Ill. ....	(2306)
Montrose Harbor West Breakwater, Ill. ....	(2307)
Monument Shoal, Green Bay, Wis. ....	175
Moon Island Leading, St. Marys River, Mich. .....	(1556)
Moon Island, St. Marys River, Mich. ....	(1562)
Mooretown, Canada ....	(1193, 1194)
Moorings Cells, N. Y. ....	(31, 32, 37, 45)
Morgan Shoal, Lake Michigan, Ill. ....	157
Morton Salt Co. Boatloading North and South, Ohio ....	(566)
Morton Salt Co. Dolphin, Ohio ....	(567)
Moscoe Channel, Lake Huron Mich. ....	93
Moseley Channel, Lake Erie, Ohio. ....	(630-636)
Mott Island Dock, Mich. ....	(1876)
Mott Island Shoal, Mich. ....	131
Mud Island, Mich. ....	(974)
Muddy Creek, Lake Erie ....	(677)
Mulchers Point Rocky Reef, Mich. ....	95

Mullet Lake North End Bulkhead, Mich. ....	(131-4)
Munising Range Front, Mich. ....	(163)
Munuscong Channel, Mich. ....	(1478-1485, 1496-1504-25)
Munuscong Lake, Mich. ....	(1473-1477)
Muscallowe Bay, Lake Huron, Mich. ....	(1374, 1374, 1374, 1374)
Muskegon, Mich. ....	(2080-219-2)
Muskegon Lake, Mich. ....	939

## N

NALCO Research, Lake Michigan ....	155
N. W. Freeman Breakwater, Wis. ....	(2410-50)
Namakan Island, Minn. ....	11-4
Namakan Lake, Minn. ....	138
National Gypsum Company, Lake Huron, Mich. ....	(1292-1308)
Names of aids .....	✓
Nauwinaway Island, Mich. ....	(2448)
Navy Point, N. Y. ....	(311)
Needles Eye Island, Canada ....	(181)
Neenah Channel, Wis. ....	(2514, 2515)
New Buffalo, Ind. ....	(2134-71, 2134-72)
New Shoal, Mich. ....	(2001, 2002)
New York State Barge Canal Entrance, Lake Erie, N. Y. ....	(471-473)
Newark Island, Lake Ontario, N. Y. ....	29
Niagara Bar, Lake Ontario, N. Y. ....	(350, 352)
Niagara Falls Channel, N. Y. ....	(486-499)
Niagara Falls Intake Crib, N. Y. ....	(497)
Niagara Falls Transmission Line, N. Y. ....	(493, 499)
Niagara Mohawk Power Corporation, N. Y. ....	(499)
Niagara Reef, Lake Erie, Ohio ....	(707)
Niagara River, N. Y. ....	(352-356)
.....	447-50
Niagara River Approach, Lake Ontario, Canada ....	(353)
Niagara River Fog Signal, Canada ....	(354-50)
Niagara River Range Front, Lake Ontario, Canada ....	(355)
Nine Foot Shoal, Wis. ....	161
Nine Mile Point, Lake Ontario, Canada. ....	(369)
Nipisco Obstruction, Indiana ....	153, 155
Njord Heim, Lake Michigan, Mich. ....	169
Nordmeer Wreck, Lake Huron, Mich. ....	(1319)
North Avenue Jetty, Chicago, Ill. ....	(2300)
North Bass Island, Lake Erie, Ohio ....	(716, 717)
North Bass Island Shoal, Ohio ....	47
North Bay Entrance North, Lake Michigan, Wis. .....	168
North Bay Entrance South Side, Wis. ....	161
North Channel, Mich. ....	(1419)
North Channel Entrance, Lake St. Clair, Mich. ....	(1129-1135)
North End, Green Bay, Mich. ....	(2450-2465)
North End, Lake Huron, Mich. ....	(1359-1374, 30)
North End, Lake Michigan, Mich. ....	(2426-2444)
North Graham Shoal, Lake Huron, Mich. ....	(1386)
North Harbor Island Reef, Canada ....	(826)
North Manitou Shoal, Lake Michigan, Mich. ....	(2050)
North Manitou Shoal Southwest End, Lake Michigan, Mich. ....	145
North McNair Shoal, Canada ....	(175)
North Point, Lake Huron, Mich. ....	87
North Point, (Milwaukee), Wis. ....	(2367)
North Side, Lake Erie, Canada ....	(799-829)
North Side, Lake Ontario, Canada ....	(365-386)
North Side, Lake Superior, Canada .....	(1885-1890)

(For numbers in parentheses, see Column 1 of list; other numbers refer to page numbers. Where unlighted buoys and daybeacons are given the same geographic reference in the list as the aids in parentheses, the page number is omitted.)

North Slip Range Front, Lake Mich., Ill.	(2182)
North Slip Spud, Lake Mich., Ill.	(2181)
North Tonawanda Intake Crib, Niagara River, N. Y.	(481)
Northeast Pierhead, Mich.	(1603)
Northeast Side, Lake Superior, Canada	(1881-1884)
Northeast Yacht Club Inner, Lake Erie	(579)
Northeast Yacht Club Outer, Ohio	(578)
Northerly Island Danger Zone West, Ill.	157, 158
Northerly Island Danger Zone, East Lake, Michigan, Ill.	157
Northport Bay Shoal, Mich.	144
Northport North, Mich.	(2034)
Northport Point, Lake Michigan, Mich.	(2033)
Northport South, Mich.	(2034, 50)
Northwest End, Lake Huron, Mich.	(1334, 1335)
Northwest Pierhead, Mich.	(1607)
Northwest Side, Lake Superior, Minn.	(1841-1880)
Northwest Side Passage Island, Lake Superior, Mich.	(1880)
Northwestern Dock, Lake Huron, Mich.	(1393)
Notice to Mariners	VI
Novodoc Wharf, Mich.	148
Nugent's Canal Point Entrance East, Lake Erie, Ohio	(732)
Nugent's Canal Point Entrance West Ohio	(731)
Nugent's Canal Point Leading, Lake Erie, Ohio	(733)
O	
Oak Creek Range Front, Milwaukee, Wis.	(2345)
Oak Island, Minn.	(1940)
Oak Orchard, Lake Ontario, N. Y.	341.10-341.50
Oak Point, Minn.	(1914)
Oak Point Island, Canada	(1906)
Oak Point Reed Cut, Lake Erie, Ohio	47
Obabikon Reef, Canada	(1929)
Oconto Harbor North Pierhead, Green Bay, Wis.	(2484)
Oconto Harbor South Pierhead, Green Bay, Wis.	(2485)
Oconto River Breakwater, Green Bay, Wis.	(2487)
Oconto River Inner, Green Bay, Wis.	(2486)
Ogden Island Range Front, St. Lawrence River, N. Y.	(96)
Ogdensburg to Brockville, Canada and Ogdensburg Harbor, St. Lawrence River, N. Y.	(166-179, 50)
Ogdensburg Harbor, St. Lawrence River, N. Y.	(168-171)
Oksiloff Special Purpose, Lake Erie, Ohio	37
Ofcott, Lake Ontario, N. Y.	(346-351)
Old Club Breakwater Lower, Mich.	(1143)
Old Club Breakwater Upper, Mich.	(1144)
Olson Reef, Rainy Lake, Minn.	136
Omnia Mission Point, Mich.	144

Ontonagon, Mich.	(1754)
Ontonagon Harbor East Pierhead, Mich.	(1755)
Ontonagon Harbor West Pierhead, Lake Superior, Mich.	(1756)
Osceola Point, Portage Lake, Mich.	(1727)
Oshawa Harbor, Lake Ontario, Canada	(384, 385)
Oshkosh Cruiser Dock, Lake Winnebago, Wis.	181
Oshkosh Pier North, Wis.	(2520)
Oshkosh Pier South, Wis.	(2519)
Oshkosh Pier West, Wis.	(2520, 50)
Oshkosh Reef, Wis.	(2518)
Oswego Harbor, Lake Ontario, N. Y.	(319-331)
Oswego Power Plant Discharge, N. Y.	19
Otter Creek, Lake Erie, Ohio	(783, 784)
Outer Island, Wis.	(1761)
Outfall, Wis.	179
Owen Sound Range Front, Canada	(1411)
Painesville Inner Intake Crib, Lake Erie, Ohio	(568)
Painesville Water Works Intake, Ohio	36
Pancake Shoal, Canada	(1881)
Parry Sound, Canada	(1416)
Passage Island, Mich.	(1880)
Passenger Pierhead, Strait of Mackinac, Mich.	(1380)
Peach Island, Mich. & Canada	1008, 1010, 1013, 1151
Peach Island Range Front, Mich.	(1027)
Peach Island Range Rear, Mich.	(1028)
Peach Orchard Point, Lake Erie, Ohio	(720)
Pelee Island West Wharf, Lake Erie, Canada	(824)
Pelee Passage East, Lake Erie, Canada	(813, 50)
Pelee Passage, Lake Erie, Canada	(819)
Pelee Passage Middle Ground, Lake Erie, Canada	(818)
Pelee Passage Traffic, Lake Erie, Canada	(817)
Pelee Passage Turning, Lake Erie, Canada	(820)
Pelee Point, Canada	(815)
Pellet Island, Lake Superior, Minn.	(1846)
Penasse Island, Canada	(1942)
Penny Island Point, Mich.	(1367)
Pensaukee Harbor, Wis.	(2488)
Pensaukee Harbor Entrance, Wis.	(2489)
Pentwater Entrance, Mich.	148
Pentwater North Pierhead, Mich.	(2072, 50)
Pentwater South Pierhead, Mich.	(2073)
Perre Marquette Lake, Mich.	(2072)
Period of lights	V
Perry Memorial Monument, Ohio	(719)
Peshigo Reef, Wis.	(2478)
Peshigo River Entrance, Wis.	(2482)
Peter Rock, Lake Ontario, Canada	(383)
Petoskey, Lake Michigan, Mich.	(2020)
Pewabik Island, Lake of the Woods, Canada	(1934)
Pickrel Channel Entrance, Mich.	(1349)
Pie Island, Thunder Bay, Canada	(1894)
Piers Marina, Lake St. Clair, Mich.	(1128, 50-1128, 57)
Pigeon Island, Lake Ontario, Canada	(367)
Pikes Bay Marina, Wis.	(1777, 51, 1777, 52)
Pilgrim Point, Mich.	(1724)
Pilot Island, Wis.	(2416)
Pine Creek, Lake of the Woods	139
Pine Creek Range Front, Lake of the woods, Canada	139
Pipe Island, Mich.	(1455)
Pipe Island Shoal, Mich.	(1454)
Pipe Island Twins, St. Marys River, Mich.	(1456)
Pleasant Point Bay West, Lake Huron, Mich.	95
Pleasant Point East, Lake Huron, Mich.	95
Pleasant Point North, Lake Huron, Mich.	95
Pleasant Point South, Lake Huron, Mich.	95
Plum Island Range Front, Wis.	(2414)
Plum Island, Wis.	(2418)
Poe Reef, Lake Huron, Mich.	(1338)
Point Abbey Shoal, Mich.	116
Point Abino, Lake Erie, Canada	(799)
Point Alexandria, Canada	(284)
Point Au Gres Special Purpose, Lake Huron, Mich.	85
Point Aux Barques, Mich.	(1236, 50, 1237)
Point aux Frenes, Mich.	(1465, 1469-1472)
Point Aux Frenes Passing Range North Front, St. Mary River, Mich.	(1468)
Point Aux Frenes Passing Range South Front, St. Marys River, Mich.	(1466)
Point Aux Pins, Mich.	112
Point Betsie, Mich.	(2053)
Point Clark, Lake Huron, Canada	(1404)
Point Edward, Lake Huron, Canada	(1213, 50)
Point Edward Range Front, Canada	(1218)
Point Huron, Lake St. Clair, Mich.	(1090)
Point Iroquois, Canada	(1644)
Point Iroquois Anchorage, Mich.	113
Point Iroquois Shoal, Mich.	(1643, 1645)
Point Peninsula, Lake Ontario, N. Y.	(304)
Point Petre, Canada	(378)
Point Superior, Lake Macatawa, Mich.	(2123)
Point Vivian Leading, N. Y.	(232)
Point of Woods Range Front, Mich.	(1494)
Pointe aux Barques, Lake Huron, Mich.	(1237)
Pointe Aux Pins Bay, Canada	(1627, 1628, 50)
Pointe aux Pins Channel, St. Marys River, Mich. and Canada	(1624-1628)
Pointe Aux Pins (Main), Canada	(1629)
Pointe Aux Pins Range Front, Canada	(1624)
Pointe aux Pins to Round Island, Canada & Mich.	(1628, 50-1638)
Pointe Louise, Canada	(1632)
Polly's Gut Training Dike A, N. Y.	(23)
Polly's Gut Training Dike West End, N. Y.	(22)
Polly's Gut Training Dike East End, N. Y.	(21)
Pomeroy Reef, Lake Huron, Mich.	(1360)
Port Point, Canada	(1925)
Porphyry Point, Canada	(1887)
Port, see proper name.	
Portage Lake, Mich.	(2061-2062)
Porte des Morts Entrance, Wis.	(2413)
Portes des Morts Passage, Wis.	(2413-2417)
Potaganniss Bay, Lake Huron, Mich.	99
Pottawatonia, Wis.	(2422)
Potter Reef, Wis.	171
Poverty Island, Mich.	(2426)
Poverty Island Passage, Mich.	(2426-2428)
Powder House Island, Mich.	62
Powder House Island Channel, Mich.	62
Powderhouse Breakwater, Lake Erie, Ohio	(548)
Prentiss Bay, Lake Huron, Mich.	92



# AIDS TO NAVIGATION ON NAVIGABLE WATERS except Western Rivers and Intracoastal Waterway

## LATERAL SYSTEM AS SEEN ENTERING FROM SEAWARD

PORT SIDE ODD NUMBERED AIDS □ WHITE OR ■ GREEN LIGHTS	MID CHANNEL NO NUMBERS—MAY BE LETTERED □ WHITE LIGHT ONLY	STARBOARD SIDE EVEN NUMBERED AIDS □ WHITE OR ■ RED LIGHTS
<p>FIXED </p> <p>FLASHING </p> <p>OCCULTING </p> <p>QUICK FLASHING </p> <p>LIGHTED BUOY  "9" Ra ref</p> <p>CAN  "7" Ra ref</p> <p>SB  "1" DAYMARKS</p> <p>SW  "3" W</p> <p>PB  "5" POINTER</p>	<p>MORSE CODE </p> <p>CAN  "T" BW C "T" Ra ref</p> <p>LIGHTED  "N" BW MoA "N" Ra ref</p> <p>NUN  "B" BW N "B" Ra ref</p> <p>DAYMARK  "A" BW</p> <p>MB</p> <p>JUNCTION MARK JUNCTIONS AND OBSTRUCTIONS NO NUMBERS—MAY BE LETTERED INTERRUPTED QUICK FLASHING </p> <p>□ WHITE OR ■ GREEN □ WHITE OR ■ RED</p> <p>M  "M" RB "D" Ra ref</p> <p>LIGHTED  "D" RB "L" Ra ref</p> <p>PREFERRED CHANNEL TO STARBOARD TOPMOST BAND BLACK</p> <p>CAN  "N" RB C "N" Ra ref</p> <p>PREFERRED CHANNEL TO PORT TOPMOST BAND RED</p> <p>NUN  "L" RB N "L" Ra ref</p> <p>JB  "L" RB</p> <p>JR  "J" RB</p>	<p>FIXED </p> <p>FLASHING </p> <p>OCCULTING </p> <p>QUICK FLASHING </p> <p>LIGHTED BUOY  "8" R "8" Ra ref</p> <p>NUN  "6" R N "6" Ra ref</p> <p>DAYMARK  "4" R "4"</p> <p>PR  "6" R "6" POINTER</p>

## BUOYS HAVING NO LATERAL SIGNIFICANCE—ALL WATERS

SHAPE HAS NO SIGNIFICANCE  
NO NUMBERS—MAY BE LETTERED  
MAY BE LIGHTED  
ANY COLOR LIGHT EXCEPT RED OR GREEN

<p>WOr  C Ra ref</p> <p>SPECIAL PURPOSE</p> <p>Y  C Ra ref</p> <p>QUARANTINE ANCHORAGE</p>	<p>N  W C "N" Ra ref</p> <p>ANCHORAGE</p> <p>BW  C Ra ref</p> <p>FISH NET AREA</p> <p>GW  C Ra ref</p> <p>DREDGING</p>
<p>UNLIGHTED</p> <p>FIXED </p> <p>FLASHING </p> <p>OCCULTING </p>	
<p>DAYMARKS HAVING NO LATERAL SIGNIFICANCE MAY BE LETTERED</p> <p>NW  SUBMERGED DANGER (ATTN)</p> <p>NR  M</p> <p>NB  M</p>	



# AIDS TO NAVIGATION ON THE INTRACOASTAL WATERWAY

AS SEEN ENTERING FROM NORTH AND EAST—PROCEEDING TO SOUTH AND WEST

**PORT SIDE**  
ODD NUMBERED AIDS  
□ WHITE OR ■ GREEN LIGHTS

FIXED OCCULTING   
FLASHING QUICK FLASHING

**LIGHTED BUOY** "3"  
Ra ref

**CAN** C "9"  
Ra ref

**SB-I** "5"  
**SW-I** "3"  
**DAYMARKS** W

**PB-I** "7"  
**POINTER**

**JUNCTION**  
MARK JUNCTIONS AND OBSTRUCTIONS  
NO NUMBERS—MAY BE LETTERED  
INTERRUPTED QUICK FLASHING

□ WHITE OR ■ GREEN LIGHTS □ WHITE OR ■ RED LIGHTS

**CAN** TO STARBOARD  
TOPMOST BAND  
BLACK RB  
C "A"  
Ra ref

**NUN** TO PORT  
TOPMOST BAND  
RED RB  
N "S"  
Ra ref

**JB-I** "E"  
RB

**JR-I** "D"  
RB

**MID CHANNEL DAYMARK** "C"  
**MB-I** BW

**STARBOARD SIDE**  
EVEN NUMBERED AIDS  
□ WHITE OR ■ RED LIGHTS

FIXED OCCULTING   
FLASHING QUICK FLASHING

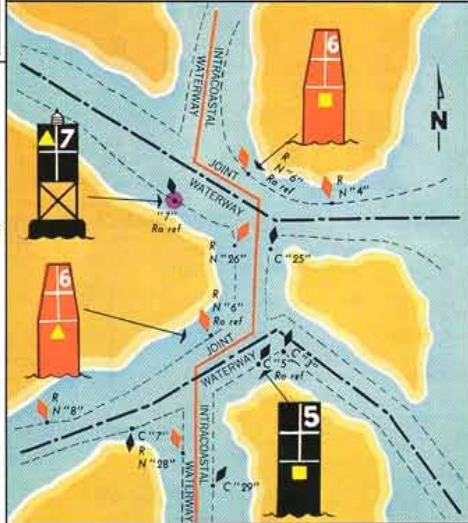
**LIGHTED BUOY** "8"  
Ra ref

**NUN** R  
N "6"  
Ra ref

**TR-I** "4"  
**DAYMARK** R  
"4"

**PR-I** "6"  
**POINTER** R  
"6"

**DUAL PURPOSE MARKING USED WHERE THE ICW AND OTHER WATERWAYS COINCIDE**



**SB-SY** "3"  
**DUAL PURPOSE DAYMARKS**

**DUAL PURPOSE BUOYS** C "5"  
Ra ref

**TR-SY** R  
"6"  
**DUAL PURPOSE DAYMARKS**

**JB-SY** "A"  
RB

**JR-SY** "B"  
RB

**TR-TY** R  
"6"  
**DUAL PURPOSE DAYMARKS**

**DUAL PURPOSE BUOYS** R  
N "6"  
Ra ref

**SB-TY** "5"  
**DUAL PURPOSE BUOYS** C "5"  
Ra ref

**JB-TY** "C"  
RB

**JR-TY** "D"  
RB

When following the ICW from New Jersey through Texas, a should be kept to your starboard hand and a should be kept to your port hand, regardless of the color of the aid on which they appear.



# AIDS TO NAVIGATION ON WESTERN RIVERS

## AS SEEN ENTERING FROM SEAWARD

### PORT SIDE

□ WHITE OR ■ GREEN LIGHTS  
FLASHING



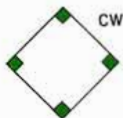
LIGHTED BUOY



CAN



PASSING DAYMARK



CROSSING DAYMARK

176.9

MILE BOARD

### JUNCTION

MARK JUNCTIONS AND OBSTRUCTIONS  
INTERRUPTED QUICK FLASHING



PREFERRED CHANNEL  
TO STARBOARD  
TOPMOST BAND BLACK

PREFERRED CHANNEL  
TO PORT  
TOPMOST BAND RED

□ WHITE OR  
■ GREEN LIGHTS



LIGHTED

□ WHITE OR  
■ RED LIGHTS



CAN



NUN



JB



JR

### STARBOARD SIDE

□ WHITE OR ■ RED LIGHTS  
GROUP FLASHING (2)



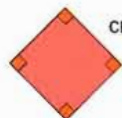
LIGHTED BUOY



NUN



PASSING DAYMARK



CROSSING DAYMARK

123.5

MILE BOARD

## RANGE DAYMARKS

NAVIGABLE WATERS  
EXCEPT ICW



KWB



KWR



KRW



KRB



KBW



KBR

INTRACOASTAL  
WATERWAY



KWB-I



KWR-I



KRW-I



KRB-I



KBW-I



KBR-I

MAY BE LETTERED



# UNIFORM STATE WATERWAY MARKING SYSTEM

## STATE WATERS AND DESIGNATED STATE WATERS FOR PRIVATE AIDS TO NAVIGATION

### REGULATORY MARKERS



SWIM AREA

BOAT  
EXCLUSION  
AREA

EXPLANATION MAY BE PLACED OUTSIDE THE CROSSED DIAMOND SHAPE, SUCH AS DAM, RAPIDS, SWIM AREA, ETC.



ROCK

DANGER

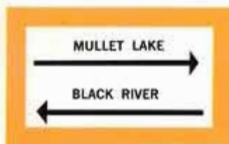
THE NATURE OF DANGER MAY BE INDICATED INSIDE THE DIAMOND SHAPE, SUCH AS ROCK, WRECK, SHOAL, DAM, ETC.



5  
MPH

CONTROLLED  
AREA

TYPE OF CONTROL IS INDICATED IN THE CIRCLE, SUCH AS 5 MPH, NO ANCHORING, ETC.



INFORMATION

FOR DISPLAYING INFORMATION SUCH AS DIRECTIONS, DISTANCES, LOCATIONS, ETC.



BUOY USED TO DISPLAY REGULATORY MARKERS

MAY SHOW WHITE LIGHT  
MAY BE LETTERED

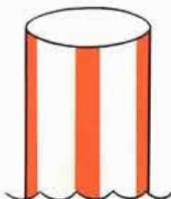
### AIDS TO NAVIGATION



MOORING  
BUOY

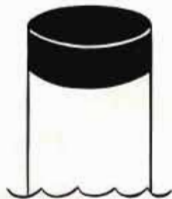
WHITE WITH BLUE BAND  
MAY SHOW WHITE  
REFLECTOR OR LIGHT

MAY SHOW WHITE REFLECTOR OR LIGHT



RED-STRIPED  
WHITE BUOY

MAY BE LETTERED  
DO NOT PASS BETWEEN  
BUOY AND NEAREST SHORE



BLACK-TOPPED  
WHITE BUOY

MAY BE NUMBERED  
PASS TO NORTH  
OR EAST OF BUOY



RED-TOPPED  
WHITE BUOY

PASS TO SOUTH  
OR WEST OF BUOY

### CARDINAL SYSTEM

MAY SHOW GREEN REFLECTOR OR LIGHT



PORT  
SIDE

### SOLID RED AND SOLID BLACK BUOYS

USUALLY FOUND IN PAIRS  
PASS BETWEEN THESE BUOYS

LOOKING UPSTREAM

LATERAL SYSTEM

MAY SHOW RED REFLECTOR OR LIGHT



STARBOARD  
SIDE