Fishery Statistical Districts of the Great Lakes

# **Great Lakes Fishery Commission**

TECHNICAL REPORT No. 2 September 1961 The Great Lakes Fishery Commission was established by the Convention on Great Lakes Fisheries, between Canada and the United States, ratified on October 11, 1955. It was organized in April, 1956 and assumed its duties as set forth in the Convention on July 1, 1956. The Commission has two major responsibilities: the first, to develop co-ordinated programs of research in the Great Lakes and, on the basis of the findings, recommend measures which will permit the maximum sustained productivity of stocks of fish of common concern; the second, to formulate and implement a program to eradicate or minimize sea lamprey populations in the Great Lakes. The Commission is also required to publish or authorize the publication of scientific or other information obtained in the performance of its duties.

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## FISHERY STATISTICAL DISTRICTS OF THE GREAT LAKES

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TR #2

### CONTENTS

Introduction	3
Statistical Districts	4
Acknowledgements	5
Description of Districts	5
Lake St. Clair	6
Boundary Lakes	7
Lake Superior	7
Lake Michigan	11
Lake Huron and Adjoining Waters	15
Lake Erie	19
Lake Ontario	22

# FISHERY STATISTICAL DISTRICTS OF THE GREAT LAKES

#### INTRODUCTION

Biologists responsible for fishery research on the Great Lakes recognized early the futility of attempting to follow changes of fish stocks without full and accurate statistics on catch and effort. The organization of the Great Lakes fisheries, in which landings are distributed among literally hundreds of small ports scattered along thousands of miles of shoreline, makes it impractical to collect the needed statistical records with field agents. The only feasible procedure is a reporting system in which the individual fishermen prepare and submit accounts of their daily take and gear fished.

A start toward the development of a reporting system began in 1926 when John Van Oosten, first Chief of Great Lakes Fishery Investigations, U. S. Bureau of Commercial Fisheries, designed a report form in cooperation with the Michigan Department of Conservation and distributed it for testing among a group of selected fishermen. The trial proved so successful that in September 1927 a form differing little from those now in use throughout the Great Lakes was made official for all commercial fishermen licensed by the State of Michigan. Submittal of reports was initially voluntary, but soon was made mandatory. By 1929 the reporting was sufficiently sound for the records to be used in the catch-effort analyses that have proven so valuable in subsequent years.

The establishment of continuing reporting systems throughout the Great Lakes similar to the one adopted by the State of Michigan was as follows: Ohio, 1931; Wisconsin, 1936; Minnesota, 1944; Ontario, 1948 (experimental use started in 1946); New York, Pennsylvania, Indiana, and Illinois, 1950. For more than 10 years catcheffort statistics have been collected for all Great Lakes fisheries. Procedures for compilation and analysis, developed especially to fit the peculiar conditions of the Great Lakes fisheries, are used by all agencies. The statistical records for the commercial fisheries of the Great Lakes are not uniformly perfect. Changes of fishing gear, methods, and regulations have made uniform analysis and interpretation difficult. The quality of the statistics is nevertheless high, indeed few of the major commercial fisheries of the world have a better background of statistical information. Trends established from analysis of the more than 30 years of record for the State of Michigan demonstrate the great value of long periods of record and the greater value of each added year.

#### STATISTICAL DISTRICTS

Inasmuch as fishing conditions are substantially different in various areas of a single lake, the most effective use of catch-effort statistics can be made only if they are sorted according to local areas, or statistical districts. The boundaries of individual districts are fixed after consideration of various factors of which three are especially important. A district should be big enough to yield a sufficiently large catch of the principal commercial species for the catch-effort records to be statistically dependable. A district should be a "natural" division with respect to biological conditions and the nature of fishing operations. District boundaries should be placed so as to minimize difficulties of compilation; if practicable, boundaries should be set between ports-not at ports-and special care should be taken to avoid location of boundaries where most fishermen would regularly operate in 2 or 3 districts. On occasion these criteria may conflict and a compromise must be reached that seems best to fit the local situation.

Experience has sometimes proven that boundaries which appeared sound actually were not practical. The early statistical work on the State of Michigan waters of Lake Michigan, for example, was based on 11 statistical districts. Difficulties in handling the records for the northern part of the lake were so great that after a few years the boundaries were redefined and the number of districts reduced to the present 8. In the Michigan waters of Lake Superior 2 of the original 7 districts were combined because neither of them produced enough fish to provide dependable catch-effort records for important species. More recently the number of statistical districts in the New York waters of Lake Ontario was reduced from 5 to 3 for the same reason.

The boundaries of the statistical districts as presently established appear to be generally satisfactory in both the United States and Canada. Certain weaknesses and imperfections still exist-especially in districts where conditions that dictated placement of the boundaries have changed-but, the weaknesses are insufficient to justify recompilation of large accumulations of reports, and the harm that would be done to the usefulness of published statistical studies. It cannot be stated categorically that no further changes of boundaries ever will be made-the need for information and the changes in fishery patterns must decide each issue when it arises. It is apparent, however, that revisions of boundaries will be few and not extensive.

A precise definition of statistical districts, supported by maps of individual lakes is especially timely in this period of expanding fishery programs of State, Provincial, and Federal agencies. The need surely will grow for common access to data compiled and analyzed by the different agencies. At this time the catch-effort statistics for all Canadian fisheries of the Great Lakes are treated by the Province of Ontario. The States of Ohio and Minnesota handle their own records. The remaining states (New York, Pennsylvania, Michigan, Indiana, Illinois, and Wisconsin) make preliminary and special tabulations, and the U. S. Bureau of Commercial Fisheries compiles catch-effort statistics for them.

#### ACKNOWLEDGEMENTS

Many people of the various states and Province of Ontario concerned with the collection, compilation, and analysis of the commercial fishery statistics have provided information on boundaries of statistical districts and have reviewed the compiled descriptions of this report. John Van Oosten of the Bureau of Commercial Fisheries supplied information on the development of the statistical reporting system. Edward Schneberger of the Wisconsin Conservation Department provided information on Wisconsin's boundary with Michigan and Minnesota. Paul Eschmeyer of the Michigan Department of Conservation assisted in obtaining information on the state boundaries of Michigan, and Lee Roach of the Ohio Division of Wildlife assisted inverifying the descriptions of state boundaries of Ohio. Edgar A. Klapp of the International Boundary Commission furnished the latest information on the location of points marking the boundary between Canada and the United States. Illustrations were prepared by William Cristanelli.

#### DESCRIPTION OF DISTRICTS

The descriptions of boundaries of statistical districts have been based on maps used in tabulating catches (Michigan and Wisconsin), descriptions given in catch summaries (Minnesota and Ohio), or descriptions provided in personal communications (New York and Ontario). Interstate boundaries are based upon the most recent legal references that could be found. The position of points on the international boundaries are taken from the latest reports and surveys of the International Boundary Commission and rounded to the nearest second of latitude and longitude.

Reference points used in describing interstate and district boundaries are shown on the guide maps accompanying the descriptions of the districts of each lake. Precise location of reference points can be obtained from the "Great Lakes Pilot," Volumes I and II, of Canada (Canadian Hydrographic Service, Ottawa) and the "Great Lakes Pilot" of the United States (U. S. Lake Survey, Detroit), and the accompanying navigation charts published by the two governments. The location of county and township lines, and streams not given in these references can be obtained from official maps of the various states and the Province of Ontario.

Where all waters of a state within a lake are treated as a single district, it is not numbered. When there are more than one, the districts have been numbered following a west-east or north-south sequence for each state or province. Previous publications have frequently used a one- or two-letter prefix to identify districts of states or province within a lake. In this paper a letter prefix designating the state or province is used before every district number. If the state or province has districts in more than one lake, a second letter designating the lake is added to the prefix. Exceptions have been the omission of "0" for Ontario in the districts of the North Channel (NC) and Georgian Bay (GB) of Lake Huron.

Commercial fishing in connecting waters of the Great Lakes is restricted or prohibited. Where such fishing has been done, the catch has been included in the adjoining district unless otherwise indicated in district descriptions.

#### LAKE ST. CLAIR

Lake St. Clair, although in the Great Lakes chain, is not generally called a "Great Lake." It is, however, an integral part of the lake system and must be included in any compilation of fishery statistics. The commercial catch in the Ontario waters of Lake St. Clair, including the St. Clair and Detroit rivers is combined in a single district (LSC). Commercial fishing is not permitted in the adjacent waters of Michigan.

#### BOUNDARY LAKES

Commercial catch statistics from the boundary lakes west of Lake Superior are often published with catch statistics of the Great Lakes. The catch from these lakes is summarized by lake separately for both Canada and the United States. These should not be considered as part of Great Lakes fishery statistics.

#### LAKE SUPERIOR

#### INTERNATIONAL BOUNDARY

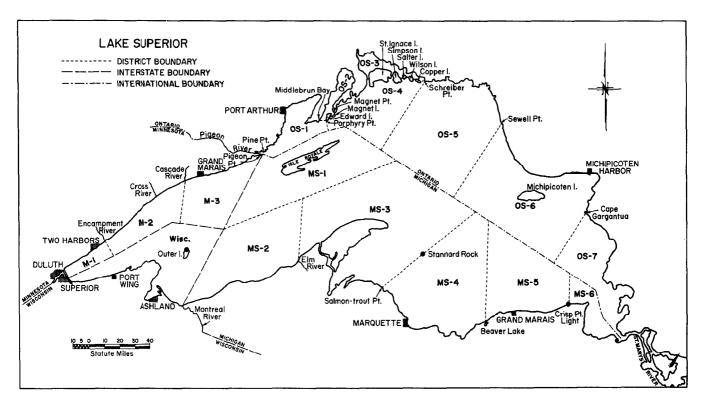
The boundary between Canada and the United States in Lake Superior is a line between the following turning pointsestablished by the International Boundary Commission:

le 46°27'39",
ide 84°33'25"
le 46°28'03",
ide 84°45'46"
le 46°53'20",
ide 84°51'37"
le 48°18'20",
de 88°22'07"
le 48°14'38",
de 88°40'45"
le 47°58'27",
de 89°20'14"
le 48°00'52",
de 89°29'21"
le 48°00'09",
de 89°33'53"

#### INTERSTATE BOUNDARIES

Michigan - Wisconsin and Minnesota

The western boundary of Michigan and the eastern boundaries of Wisconsin and Minnesota in Lake Superior follow a line connecting a point in the middle of the main channel of the Montreal River where it enters Lake Superior (latitude 46°34'05", longitude 90°25'05") and a point where a line drawn through the most easterly point of Pigeon Point and the most southerly point of Pine Point intersects the international boundary (latitude 48°00'50", longitude 89°29'00"), (Mich. Comp. Laws, Sec. 2.202).



Wisconsin - Minnesota

The boundary between Wisconsin and Minnesota begins at the midpoint of the boundary between these states and Michigan in Lake Superior (latitude  $47^{\circ}17'30''$ , longitude  $87^{\circ}57'00''$ ) and passes through the following points (Minn. Statutes, Chap. 1.15, par. 3):

- Latitude 47°18'35", longitude 90°39'15"-a point at the midpoint of a direct line between the mouth of Cross River, Minnesota, and the lighthouse on Outer Island in Wisconsin.
- Latitude 46°54'10", longitude 91°31'25"-a point at the midpoint in a direct line between the lighthouse on the shore at Two Harbors, Minnesota, and the light on the lakeward end of the government's east pier at Port Wing, Wisconsin.
- Latitude 46°42'39.875", longitude 92°00'24.571"-a point at the midpoint in a direct line, and at right angles to the central axis of the Lake Superior entry between the tops of the eastern ends of the pierheads at the lakeward ends of the Government breakwaters at the Superior entry of the Duluth-Superior harbor.

#### STATISTICAL DISTRICTS

Michigan

- District MS-1 is bounded on the north and east by the International boundary, on the west by the Michigan-Minnesota boundary and on the south by a line on a true azimuth of 64" from the junction of the Michigan-Minnesota-Wisconsin boundaries (latitude 47°17'30", longitude 87°57'00") northeasterly to an intersection with the international boundary.
- District MS-2 is bounded on the west by the Michigan-Wisconsin boundary, on the east by a line true north from the mouth of the Elm River to an intersection with the southern boundary of MS-l, and on the north by the southern boundary of MS-l.
- District MS-3 is bounded on the west by MS-2, on the north by the southern boundary of MS-1 and the international boundary, and on the east by a line from the northernmost tip of Salmon-Trout Point through Stannard Rock Light to an intersection with the international boundary.
- District MS-4 is bounded on the east by MS-3, on the north by the international boundary, and on the west by a line true north from the mouth of the Beaver Lake outlet to an intersection with the international boundary.
- District MS-5 is bounded on the west by MS-4, on the north by the international boundary, and on the east by a line true north from Crisp Point Light to an intersection with the international boundary.

District MS-6 is bounded on the west by MS-5, and on the north and east by the international boundary.

#### Minnesota

- District M-l is bounded on the south by the Minnesota-Wisconsin boundary, and on the east by a line from the mouth of Encampment River to an intercept with the interstate boundary at right angles.
- District M-2 is bounded on the west by district M-1, on the south by the Minnesota-Wisconsin boundary, and on the east by a line from the mouth of the Cascade River to an intercept with the interstate boundary at right angles.
- District M-3 is bounded on the west by district M-2, on the south by the Minnesota-Wisconsin boundary, on the east by the Michigan-Minnesota boundary, and by the international boundary in Pigeon Bay.

#### Ontario

- District OS-1 is bounded on the south by the international boundary, on the east by a line from Point Porphyry that intersects the international boundary at right angles, and on the north by a line from Middlebrun Island off Middlebrun Bay to Point Porphyry.
- District OS-2 is bounded on the south by OS-1 and a line from Pringle Bay on Edward Island to the southwestern point of Magnet Island off Point Magnet, and by the narrow channel between Magnet Island and Point Magnet.
- District OS-3 is bounded on the south by a line from Schreiber Point to the eastern point of Copper Island, thence westerly through the midpoints of channels between Copper, Wilson, Salter, Simpson and St. Ignace Islands, and the mainland to the west.
- District OS-4 is bounded on the north by districts OS-2 and OS-3, on the west by district OS-1, on the east by a line southwesterly from Schreiber Point to an intercept with the international boundary at right angles, and on the south by the international boundary.
- District OS-5 is bounded on the west by OS-4, on the south by the international boundary, and on the east by a line from Sewell Point southwesterly to an intercept with the international boundary at right angles.
- District OS-6 is bounded on the west by OS-5, on the south by the international boundary, and on the east by a line from Cape Gargantua southwesterly to an intercept with the international boundary at right angles.

District OS-7 is bounded on the west by OS-6, and on the south and east by the international boundary.

#### Wisconsin

The Lake Superior waters of Wisconsin comprise a single statistical district.

#### LAKE MICHIGAN

#### INTERSTATE BOUNDARIES

#### Indiana - Illinois and Michigan

The Indiana waters of Lake Michigan are bounded by a true north extension of the Indiana-Illinois border to an intersection with a true east-west line passing through a point 10 miles north of the southern extreme of Lake Michigan which forms the land boundary between Indiana and Michigan (Indiana Constitution, Art. 1, par. 1).

Illinois - Michigan and Wisconsin

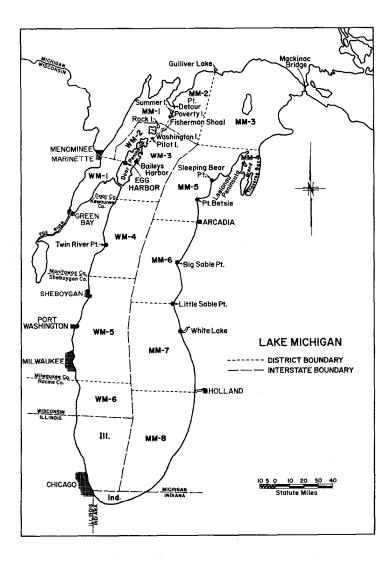
The Illinois waters of Lake Michigan are bounded on the south by the Indiana-Illinois boundary to a point equidistant from each shore on thenorthern boundary of Indiana, thence north on a common boundary with Michigan to a point equidistant from each shore on latitude  $42^{\circ}29'37"$  (at longitude  $87^{\circ}01'15"$ , Mich. Comp. Laws, Sec. 2.201) which forms the boundary with Wisconsin to the north (Constitution of Illinois, Art. I). A straight line between the midlake points at the latitudes of the northern boundaries of Indiana and Illinois closely approximates the "middle of the lake" boundary called for *in* the Illinois Constitution.

Michigan - Wisconsin

The boundary between Michigan and Wisconsin in Lake Michigan starting at the southeastern corner of Wisconsin at latitude 42°29'37", longitude 87°01'15" (a point equidistant from either shore on a line which is the eastward continuation of the boundary line between Wisconsin and Illinois) extends northward through the following points (Mich. Comp. Laws, Sec. 2.201):

Latitude 43°22'50", longitude 87°08'50" - a point equidistant from either shore on a line drawn through the Port Washington fog signal and storm signal, and the White Lake storm signal.

Latitude 43°42'00", longitude 87°07'20" -a point equidistant



from either shore on a line drawn through the Sheboygan storm signal, fog signal, and radio beacon, and Little Sable Point light.

- Latitude 44°07'55", longitude 87°00'45" a point equidistant from either shore on a line drawn through the Twin River Point light and fog signal, and Big Sable light and fog signal.
- Latitude 44°52'50", longitude 86°41'10" a point equidistant from either shore on a line drawn from Bailey's Harbor inland light, and Point Betsie fog. signal, radio beacon, and distance finding station,
- Latitude 45°05'20", longitude 86°29'30" a point equidistant from either shore on a line drawn through Pilot Island light and fog signal, and Sleeping Bear Point light.
- Latitude 45°14'10", longitude 86°14'55" a point determined by the United States Supreme Court decree of March 16, 1936, which point is 45,600 meters from the center of Rock Island passage on a true azimuth of 120".

The boundary between Michigan and Wisconsin in Green Bay (U. S. Supreme Court, 297 US 547, 58 S. Ct. 584) terminating at the last mentioned point above, originates at a point midway between the outer ends of the Menominee Harbor piers, thence on a true course of azimuth 101°15' for 11,470 meters (approximately 7.13 statute miles);

Thence on a true course of azimuth 11°45' for 14,250 meters (approximately 8.85 statute miles);

Thence on a true course of azimuth of 58°50' for 8,290 meters (approximately 5.15 statute miles);

Thence on a true course of azimuth 42°18' for 16,780 meters (approximately 10.43 statute miles);

Thence on a true course of azimuth 28°10' for 11,580 meters (approximately 7.20 statute miles);

Thence on a true course of azimuth 90" for 27,170 meters (approximately 16,88 statute miles);

Thence upon a true course of azimuth 120" for 45,600 meters (approximately 28,33 statute miles).

#### STATISTICAL DISTRICTS

#### Illinois

The Lake Michigan waters of Illinois comprise a single statistical district.

#### Indiana

The Lake Michigan waters of Indiana comprise a single statistical district. Michigan

- District MM-1 is bounded on the southeast and south by the Michigan-Wisconsin boundary in Green Bay, and on the east by a line from the eastern tip of Pt. Detour, to the easternmost edge of Summer Island, thence to an intersection with the Michigan-Wisconsin boundary on a line from the easternmost edge of Summer Island through the navigation light on Fisherman Shoal.
- District MM-2 is bounded on the west by MM-I, on the south by the northern boundary of Wisconsin east of MM-I, and on the east by a line from the mouth of Gulliver Lake outlet to the northeast corner of the Michigan-Wisconsin boundary in Lake Michigan (latitude 45°10'14", longitude 86°14'55").
- District MM-3 is bounded on the west by MM-2, on the east by Mackinac Bridge, and on the south by a line from the northeast corner of the Michigan-Wisconsin boundary in Lake Michigan across the northernmost tip of Leelanau Peninsula to an intersection with the east shore at the mouth of Grand Traverse Bay.
- District MM-4 includes all of Grand Traverse Bay, and is bounded on the north by MM-3.
- District MM-5 is bounded on the north by MM-3, on the west by the Michigan-Wisconsin boundary, and on the south by a line true west from the entrance to Arcadia harbor to an intersection with the interstate boundary.
- District MM-6 is bounded on the north by MM-5, on the west by the Michigan-Wisconsin boundary, and on the south by a line true west from Little Sable Point to an intersection with the interstate boundary.
- District MM-7 is bounded on the north by MM-6, on the west by the Michigan-Wisconsin boundary, and on the south by a line true west from the entrance of Holland harbor at Lake Macatawa to an intersection with the interstate boundary.
- District MM-8 is bounded on the north by MM-7, on the west by the Michigan boundary with Wisconsin and Illinois, and on the south by the Michigan-Indiana boundary.

Wisconsin

- District WM-1 in southern Green Bay is bounded on the north by the first leg of the Wisconsin-Michigan boundary from the Menominee Harbor Piers (azimuth 101°15') and the easterly extension of this line to the northern tip of the point forming the southwestern side of Egg Harbor, on the Door Peninsula.
- District WM-2 is bounded on the south by WM-1, on the west and north by the Wisconsin-Michigan boundary, and on the

east by the portion of a line from the easternmost edge of Summer Island to the navigation light on Fisherman Shoal that is south of its intersection with the interstate boundary, thence from the light on Fisherman Shoal through the eastern edge of Pilot Island to intercept the Door Peninsula.

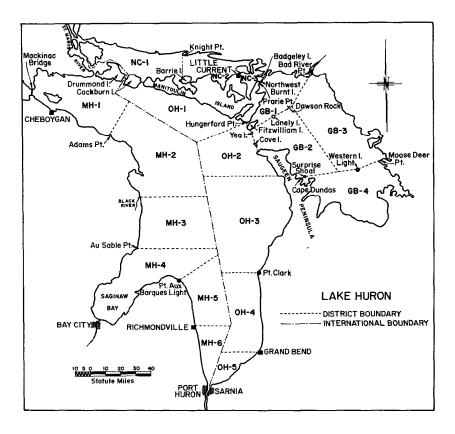
- District WM-3 is bounded on the west by WM-2, on the north and east by the Wisconsin-Michigan boundary, and on the south by an extension of the Door-Kewanee county line to an intersection with the interstate boundary.
- District WM-4 is bounded on the north by WM-3, on the east by the Wisconsin-Michigan boundary, and on the south by an extension of the Manitowac-Sheboygan county line to an intersection with the interstate boundary.
- District WM-5 is bounded on the north by WM-4, on the east by the Wisconsin-Michigan boundary, and on the south by an extension of the Milwaukee-Racine county line to an intersecsection with the interstate boundary.
- District WM-6 is bounded on the north by WM-5, on the east by the Wisconsin-Michigan boundary, and on the south by the Wisconsin-Illinois boundary.

#### LAKE HURON AND ADJOINING WATERS

#### INTERNATIONAL BOUNDARY

The boundary between Canada and the United States in Lake Huron and North Channel is a line between the following turning points established by the International Boundary Commission:

Turning point number 215 - latitude 43°00'41",
longitude 82°24'50"
Turning point number 216 - latitude 43°35'28",
longitude 82°07'22"
Turning point number 217 - latitude 45°20'19",
longitude 82°31'07"
Turning point number 218 - latitude 45°49'16",
longitude 83°35'50"
Turning point number 219 - latitude 45°59'53",
longitude 83°26'02"
Turning point number 220 - latitude 46°06'21",
longitude 83°34'19"
Turning point number 221 - latitude 46°07'18",
longitude 83°39'18"
Turning point number 222 - latitude 46°06'10",
longitude 83°45'36"



Turning	point	number	223	- latitude 46°07'08",
				longitude 83°49'35"
Turning	point	number	224	- latitude 46°03'38",
				longitude 83°54'13"
Turning	point	number	225	- latitude 46°03'24",
_	-			longitude 83°5'7'20"
Turning	point	number	226	- latitude 46°06'09",
•	-			longitude 83°58'35"

#### STATISTICAL DISTRICTS

#### Michigan

- District MH-1 in Lake Huron and North Channel is bounded on the west by the Mackinac Bridge, on the north and east by the international boundary to the St. Marys River, and by a line from Adams Point northeasterly to an intercept with the international boundary at right angles.
- District MH-2 is bounded on the west by MH-1, on the north and east by the international boundary, and on the south by a line true east from the mouth of the Black River to an intersection with the international boundary.
- District MH-3 is bounded on the north by MH-2, on the east by the international boundary, and on the south by a line true east from Au Sable Point to an intersection with the international boundary.
- District MH-4 is bounded on the north by MH-3, on the east by the international boundary, and on the south by a line from Point Aux Barques Light on a true azimuth of 57° to an intersection with the international boundary.
- District MH-5 is bounded on the north by MH-4, on the east by the international boundary, and on the south by a line true east from Richmondville, Michigan, to an intersection with the international boundary.
- District MH-6 is bounded on the north by MH-5, and on the east by the international boundary.

#### Ontario

District OH-1 in Lake Huron is bounded on the west and southwest by the international boundary, on the southeast by a line from Hungerford Point southwesterly to turning point No. 217 of the international boundary (latitude 45°20'19", longitude 82°31'07") west of the opening of Georgian Bay, and on the north by a line across the narrowest part of the channels between Drummond and Cockburn Islands east of the international boundary, and between Cockburn and Manitoulin Island.

- District OH-2 is bounded on the north by OH-l, on the east by a line from Hungerford Point to the northwest tip of Fitzwilliam Island, thence through the narrowest channels between Fitzwilliam, Yeo, Cove, and Russel Islands, and the Saugeen Peninsula to the south, on the west by the international boundary, and on the south by the 45th parallel.
- District OH-3 is bounded on the north by OH-2, on the west by the international boundary, and on the south by a line true west from Point Clark to an intersection with the international boundary.
- District OH-4 is bounded on the north by OH-3, on the west by the international boundary, and on the south by a line true west from Grand Bend, Ontario, to an intersection with the international boundary.
- District OH-5 is bounded on the north by OH-4, and on the west by the international boundary.
- District NC-1 in the North Channel is bounded on the west and southwest by the international boundary, on the south by OH-l, and on the east by a line from Knight Point true south to Barrie Island.
- District NC-2 is bounded on the west by NC-l, and on the east by the bridge at Little Current, Ontario.
- District NC-3 is bounded on the west by the bridge at Little Current, Ontario, and on the east by a line running from Prairie Point easterly to the southwest point of Northwest Burnt Island, a line across the narrowest channel between Northwest Burnt Island and Badgeley Island, and a line true north from Underhill Point on Badgeley Island to an intersection with the peninsula to the north.
- District GB-1 in Georgian Bay is bounded on the west by NC-3 and OH-2, and on the south and east by a line from the southern point of Fitzwilliam Island northeasterly through Dawson Rock to a point 3.75 statute miles beyond the marine marker stake on the rock, thence northeasterly to Bad River Point.
- District GB-2 is bounded on the north by GB-1, on the west by OH-2, and on the south and east by a line from Cape Dundas northeasterly to the flashing light on Surprise Shoal, thence easterly 22.25 statute miles on a line that intercepts the navigation light in Western Islands, thence to the point 3.75 statute miles northeast of Dawson Rock (on the boundary of GB-1).
- District GB-3 is bounded on the northwest by GB-1, on the southwest by GB-2, and on the south by a line from the point 22.25 statute miles easterly of Surprise Shoal light extending

easterly to the navigation light in Western Islands, thence northeasterly to Moose Deer Point.

District GB-4 is bounded on the north by GB-2 and GB-3.

#### LAKE ERIE

#### INTERNATIONAL BOUNDARY

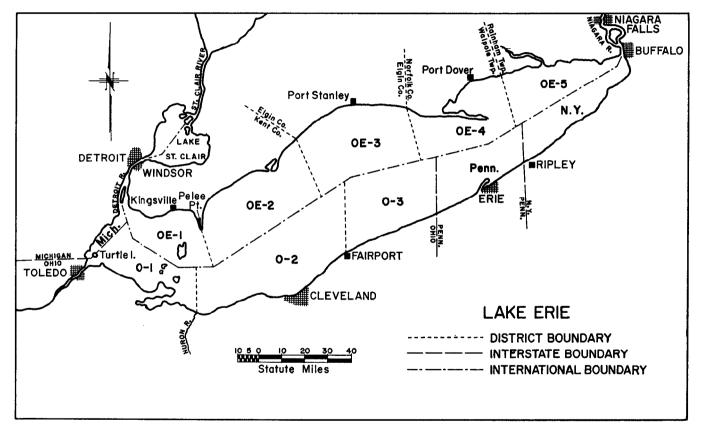
The boundary between Canada and the United States in Lake Erie is a line between the following turning points established by the International Boundary Commission:

Turning point number 152 - latitude 42°54'01",
Iongitude 78°54'22" Turning point number 153 - latitude 42°52'52", longitude 78°54'57"
Turning point number 154 - latitude 42°52'43", longitude 78°54'59"
Turning point number 155 - latitude 42°49'42",
longitude 78°56'08" Turning point number 156 - latitude 42°23'37",
longitude 80°04'48" Turning point number 157 - latitude 42°12'27",
longitude 81°14'45" Turning point number 158 - latitude 41°40'35",
longitude 82°23'51" Turning point number 159 - latitude 41°40'35",
longitude 82°40'47" Turning point number 160 - latitude 41°51'49",
longitude 83°04'09" Turning point number 161 - latitude 42°02'27",
Iongitude 83°08'59" Turning point number 162 - latitude 42°07'31",
longitude 83°07'18"

#### INTERSTATE BOUNDARIES

#### Michigan-Ohio

Concurrent resolutions, passed by Legislatures of Michigan (Mich. Comp. Laws, Sec. 3.231) and Ohio (Ohio General Code Sec. 13855 and 13855-1) in 1945, described the boundary between the two states as a line passing through the center of the circular wall of the old lighthouse on Turtle Island on a true azimuth of 225" to an intersection with an extension of the land boundary between Michigan and



Ohio to the southwest, and an intersection with the international boundary to the northeast. This resolution was rescinded by Michigan (Mich. Comp. Laws, Sec. 2.341) in 1947. The location of this boundary is, therefore, still undecided.

#### Ohio-Pennsylvania

The Ohio-Pennsylvania boundary in Lake Erie is a northward extension of the land boundary to its intersection with the international boundary (Penn. Statutes, Title 71, par. 1839).

#### Pennsylvania-New York

The Pennsylvania-New York boundary in Lake Erie is a northward extension of the land boundary to an intersection with the international boundary (Penn. Statutes, Title 71, par. 1861).

#### STATISTICAL DISTRICTS

#### Michigan

The Lake Erie waters of Michigan comprise a single statistical district.

#### New York

The Lake Erie waters of New York comprise a single statistical district.

#### Ohio

- District O-l is bounded on the west by the Ohio-Michigan boundary, on the north by the international boundary, and on the east by a line true north from the mouth of the Huron River to an intersection with the international boundary.
- District O-2 is bounded on the west by district O-1, on the north by the international boundary, and on the east by a line true north from the entrance to Fairport Harbor to an intersection with the international boundary.
- District O-3 is bounded on the west by district O-2, on the north by the international boundary, and on the east by the Ohio-Pennsylvania boundary.

#### Ontario

District OE-1 is bounded on the west and south by the international boundary, and on the east by a line from the southern tip of Pelee Point southeasterly to turning point No. 158 of the international boundary (latitude 41°40'35", longitude 82°23'51").

- District OE-2 is bounded on the west by OE-1, on the south by the international boundary, and on the east by a line from the Kent-Elgin county line to an intersection with the international boundary in line with the entrance to Fairport Harbor.
- District OE-3 is bounded on the west by OE-2, on the south by the international boundary, and on the east by a line from the Elgin-Norfolk County line to an intersection with the international boundary in line with the junction of the Ohio-Pennsylvania boundary with the south shore.
- District OE-4 is bounded on the west by OE-3, on the south by the international boundary, and on the east by a line from the Walpole-Rainham township line to an intersection with the international boundary in line with Ripley, New York.
- District OE-5 is bounded on the west by OE-4, and on the south and east by the international boundary, and includes the Niagara River above the Niagara Falls.

Pennsylvania

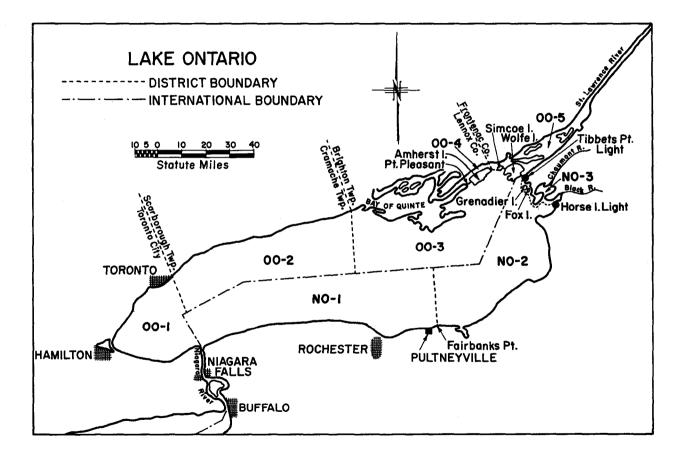
The Lake Eriewaters of Pennsylvania comprise a single statististical district.

#### LAKE ONTARIO

#### INTERNATIONAL BOUNDARY

The boundary between Canada and the United States in Lake Ontario is a line between the following turning points established by the International Boundary Commission:

Turning p	point	number	104 - latitude 44°08'03",	
			longitude 76°21'11"	
Turning p	point	number	105 - latitude 44°05'38",	
			longitude 76°26'21"	
Turning p	point	number	106 - latitude 43°37'52",	
			longitude 76°47'49"	
Turning p	point	number	107 - latitude 43°37'52",	
			longitude 78°41'26"	
Turning p	point	number	108 - latitude 43°27'02",	
			longitude 79°12'03" <sup>1</sup>	
Turning p	point	number	109 - latitude 43°15'44",	
			longitude 79°04'14"	



STATISTICAL DISTRICTS

New York

- District NO-1 is bounded on the west and north by the international boundary, and on the east by a line true north from Fairbanks Point to an intersection with the international boundary.
- District NO-2 is bounded on the west by NO-l, on the north by the international boundary, but on the east Chaumont Bay, Black River Bay and nearby shore waters that comprise district NO-3 are excluded.
- District NO-3 includes the area within 1/2 mile of shore off Jefferson County between Horse Island Light on the south and Tibbets Point Light on the north, and including Black River Bay, Chaumont Bay, and Chaumont River west of Depauville, and waters within 1/2 mile of Fox and Grenadier Islands.

Ontario

- District 00-1 is bounded on the east by the international boundary and by a line from the Toronto City-Scarborough township line to an intersection with the international boundary in line with the mouth of the Niagara River, and includes the Niagara River below Niagara Falls.
- District 00-2 is bounded on the west by 00-1, on the south by the international boundary, and on the east by a line from the Cramache-Brighton township line to an intersection with the international boundary at right angles.
- District 00-3 is bounded on the west by 00-2, on the south and southwest by the international boundary to the southern tip of Wolf Island, and on the north by the narrowest channel between Point Pleasant and Amherst Island, and by a line from the easternmost point of Amherst Island to the westernmost point of Simcoe Island, and the narrowest point of the channel between Simcoe Island and Wolfe Island.
- District 00-4 is in the Bay of Quinte and bounded on the south by 00-3, and on the east by a line from the Lennox-Frontenac county line to the easternmost tip of Amherst Island.
- District 00-5 is in the upper St. Lawrence River, including Lake St. Francis, bounded on the west by 00-3 and 00-4, on the south by the international boundary, and on the east by the Ontario-Quebec boundary. (Easternextremity of this district not shown on map.)