10138

Diagram No. LS-2

NOAA FORM 76-35A

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE

DESCRIPTIVE REPORT

Type of Survey ... Hydrographic

Field No. ... HFP-20-1-84

Registery No. ... H-10138

LOCALITY

State ... New York

General Locality ... Lake Ontario

Sublocality ... North Hamlin to Rochester

1984

CHIEF OF PARTY
LCDR R.W.Jones

LIBRARY & ARCHIVES

DATE ... October 22, 1986

☆U.S. GOV. PRINTING OFFICE: 1985—566-054

10138

Area 7
Chts
14804
14805
14815
14800
TO SIGN OFF SEE "RECORD OF EXAMINATION"

NOAA FORM 77-28 (11-72)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

HYDROGRAPHIC TITLE SHEET

REGISTER NO.

H-10138

INSTRUCTIONS - The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

FIELD NO.

HFP-20-1-84

State: New York

General locality: Lake Ontario

Locality: North Hamlin to Rochester

Scale: 1:20,000 Date of survey: 19 June - 10 October 1984

Instructions dated: 11 April 1984 Ch. 1 - 5/21/84 Project No.: OPR-V255-HFP-84

Vessel: Hydrographic Field Parties Section - Hydro Field Party Four

Chief of party: Ronald W. Jones, LCDR, NOAA

Surveyed by: Franklin Ohlinger & E. Martin

Soundings taken by echo sounder, hand lead, pole: all

Graphic record scaled by: F. Ohlinger, E. Martin, R. Adams, S. Weisner, L. Biscorner

Graphic record checked by: F. Ohlinger & E. Martin

Verification by: J. N. Shofner Automated plot by: PMC Xynetics

Evaluation by: C.R. Davies

Soundings in ~~fathoms~~ feet at ~~MLW MLLW~~ LWD-IGLD 1955 (Lake Ontario)

REMARKS: All times in UTC. Marginal notes in black by evaluator. Separates filed with the hydrographic data.

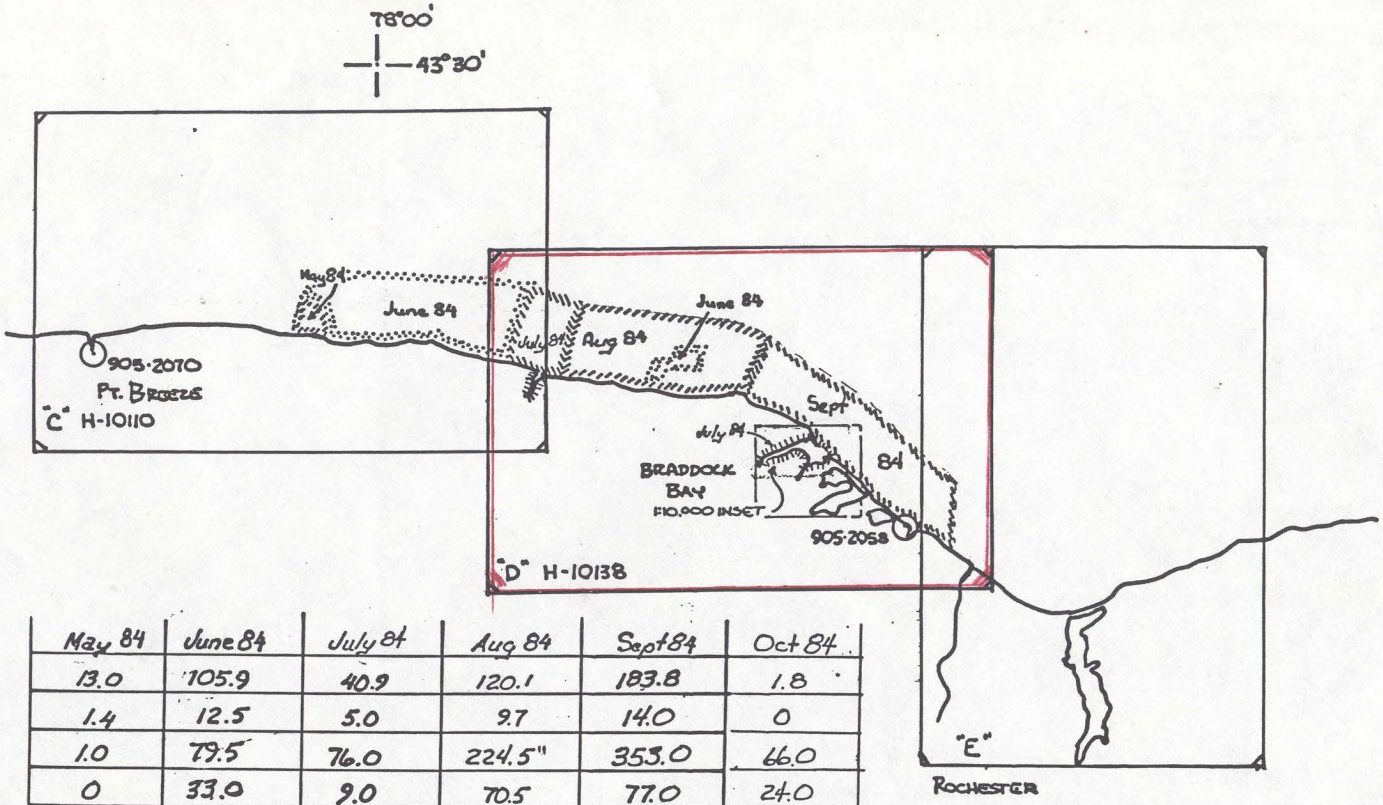
STANDARDS CK'D 10-24-86
C.Loy

SC 4-16-97

AWOIS and SURF ✓ 1/89 SCB

NOAA FORM 77-28 SUPERSEDES FORM C&GS-537

☆ U.S. GOVERNMENT PRINTING OFFICE 1978-665-010-1174



Month	May 84	June 84	July 84	Aug 84	Sept 84	Oct 84
L.N.M. Sdg line	13.0	105.9	40.9	120.1	183.8	1.8
Sq.N.M. Sdg line	1.4	12.5	5.0	9.7	14.0	0
L.N.M. to & from	1.0	79.5	76.0	224.5"	353.0	66.0
L.N.M. Misc	0	33.0	9.0	70.5	77.0	24.0
Cont. Stations	0	1	1	1	0	0
Water level Sta.	0	0	0	0	0	0
Bottom Samples/ D.P.s	0/0	69/69	21/43	12/40	22/42	2/3

from Chart 14800, 25th Ed., Mar 21/81

PROGRESS SKETCH
OPR V255-HFP-84
S. SHORE LAKE ONTARIO
HFR 20-2-83 & HFP 20-1-84
H-10110 & H-10138

LCDR ROLAND W. JONES, COMDG

77°30'
43°00'

Descriptive Report to Accompany

Hydrographic Survey H-10138

HFP-20-1-84

Scale: 1:20,000
Chief of Party: Ronald W. Jones, LCDR, NOAA
Officer in Charge: Franklin E. Ohlinger, LTJG, NOAA
Hydrographic Field Party 4

A. PROJECT: ✓

This survey was accomplished under Project Instructions OPR-V255-HFP-84, Dated 11 April 1984, and amended by Change No. 1 dated 21 May 1984.

B. AREA SURVEYED ✓

The area surveyed was the South shore of Lake Ontario from North Hamlin to Rochester, NY. out to the 20-fathom curve. The area is bounded by: See EVAL Report Section I

Lat.43°15.5'N, Lon.77°36.0'W

Lat.43°23.0'N, Lon.77°36.0'W

Lat.43°23.0'N, Lon.77°54.0'W

Lat.43°20.5'N, Lon.77°55.0'W

A 1:10000 scale inset of Braddock Bay is included in this survey. This area is bounded by.

Lat.43°18.0'N, Lon.77°45.5'W

Lat.43°20.0'N, Lon.77°42.0'W

Lat.43°18.0'N, Lon.77°42.0'W

Lat.43°20.0'N, Lon.77°45.5'W

The survey was conducted from 19 June 1984, J.D. 171 to 10 October 1984, JD. 284, inclusive.

C. SOUNDING VESSEL ✓

All soundings obtained on this survey were obtained from NOAA Launch 0520 (EDP# 0520). All survey records are annotated with the vessel number.

D. SOUNDING EQUIPMENT AND CORRECTIONS TO ECHO SOUNDINGS ✓

The following Raytheon equipment was used during the survey:

JD. 171-174	DE 719B	S/N 9221
JD. 184-207	DE 719C	S/N 7881
JD. 214-	DE 719C	S/N 10271

Fathometer DE 719B S/N 9221 developed an intermittent chart drive failure while running on H-10110 and was replaced. This problem did not affect this survey. Fathometer DE 719C S/N 7881 was used until a variation in the chart drive speed appeared on JD. 207, while surveying Braddock Bay. On chart speed 3, the sounding interval on this unit would drift from 20 to 23 seconds in the course of the day. Even though this drift did not affect the quality, the unit was replaced.

Throughout the survey, all Fathometers showed interference from the launch's VHF radio. The traces tended to jump as the microphone was keyed. All such glitches were accounted for when scanning the graphic records. Otherwise, the initial and calibration lines were monitored while running to ensure no initial corrections were necessary.

Settlement and squat tests on Launch 0520 were run on 24 May 84 off Bald Eagle Marina. The results are included in the Appendix to this report. Settlement and squat corrections will be applied via the TC/TI tape. Filed with the hydrographic data

Velocity and instrument correctors were determined by barchecks and TDC casts. The TDC was a Martek Model 101-10 instrument S/N 477, which was calibrated for fresh water by AMC personnel on 1 March 1984. Casts were taken almost weekly.

Barchecks were taken twice daily whenever possible. The chains were compared to a steel tape throughout the survey to ensure their accuracy. No discrepancy was observed.

The velocity and barcheck data were grouped according to the thermal activity of the lake as described in the report, "The Effect of Lake Ontario Water Temperatures on Hydrography". A graph of water temperatures was obtained from the Brockport water works and is included with the bar check and TDC data. These temperatures show the periods of thermal fluctuations around which the velocity data were grouped. Twenty-seven velocity tables were used, as submitted by the field.

While surveying in the shallow water of Braddock Bay, a discrepancy approaching one foot appeared between simultaneous pole soundings and the adjusted Fathometer trace. This difference is due to a deep layer of soft mud in the bay and was minimized by switching between the two sounding methods as little as possible.

E. SURVEY SHEETS ✓

The field sheets were prepared in the field using a PDP-8/e computer and a DP-3 Complot plotter. Work sheets, semi smooth sheets, smooth field sheets and overlays are included with this survey.

Mainscheme hydrography and crosslines are plotted on the smooth field sheet, while developments, bottom samples, prior survey soundings, junction surveys, presurvey review items, and aids to navigation are shown on the overlay sheets. The parameter tape listing for the field sheets is included in the Appendix of this report. The final smooth sheet and verification of this survey will be accomplished at the ~~Atlantic~~ Pacific Marine Center. Filed with the hydrographic data

F. CONTROL STATIONS ✓

Control stations used during this survey were established this year to third order standards or better. Stations Temp. Bay, Yeager ECC and Rochester Harbor Light were established by HFP-4 all other new stations were set by AMC's Geodetic Control Group. All stations are referred to the North American 1927 Datum. A list of all control stations is included in the Appendix of this report.

The chart datum is North American Datum of 1902.

G. HYDROGRAPHIC POSITION CONTROL ✓

The method used to control most of this survey was range-azimuth using a Nikon NT-2D (S/N 031005) and the Del Norte transponder RO-3C system. The Distance Measuring Unit (S/N 192) and Master transponder (S/N 1066) were used aboard Launch 0520 and Remote code 74 (S/N 927) was placed ashore for position control. Mainscheme arcs were run from a Remote code 76 (S/N 244) positioned 1.5 ~~mile~~ meters SW of the Braddock Pt. Light (Station 400) and later 2.5 ~~mile~~ meters NW of the Rochester Harbor Light (station 631).

On JD 268, bottom samples were taken in the fog on the west side of the sheet using code 76 in a range/range mode with code 74. Although code 76 had not been calibrated since JD 145, a careful systems check and a closing calibration indicated it was reliable.

The Del Norte equipment used for positioning was calibrated periodically over a distance of 2363 meters as determined by the HP3810B EDMI. Daily systems checks were performed before and after hydrography, when possible, by bringing the boat alongside a known point. When necessary, an antenna offset was measured and supplied to the readings.

The average of the system checks on JD 171 and JD 174 were -5 and -3 respectively. These figures were verified by a calibration on JD 179 and were applied to the data via the corrector tape. All other correctors are zero.

Some "See Boat Sheet" positions were taken in Sandy Creek on the 1:20,000 sheet and near the head of Salmon Creek on the inset. Pesudo fix data were generated in order to machine plot this data.

C. Plath sextant (S/N 56316 was used to verify landmarks and determine heights of objects.

The HP-3810B (S/N 1929 A0041) was calibrated by Hewlett Packard in February 1984 during repairs and was verified by the AMC Geodetic Control Group in the field.

H. SHORELINE ✓

Shoreline was obtained for both sheets from class III photomanuscripts dated June 1980. See EVAL Report Section 2

Detail for the 1:20,000 sheet along Braddock Bay and again near the Genesee River was obtained from reductions of TP-0900 and TP-1065, which were both at a scale of 1:10,000. Some alignment problems occurred at these junctions but were smoothed by shifting the reduced sheets as necessary.

A discrepancy appears on TP-504 near Lat. 43°21.0'N, Lon. 77°53.6'W. The bridge across Sandy Creek and station Sandy Bridge (station 617) differ by 10 meters. The true width of the bridge is 23 meters and the station is located about 1 meter south of the center of the north edge. The bridge appears to be misplaced as the position of the station was remeasured and verified. No hydrography was controlled from this station, but "See Boat Sheet" pos. 1096 was pseudo plotted by it's proximity to the station. This position will need to be adjusted if the station itself is adjusted. Station 617 was not used to control position 1096.

Shoreline verification was accomplished in conjunction with the survey and all notes are included in the survey data. Most piers shown on the T-sheets are temporary and are deleted from the shoreline. All other changes are noted on the overlay and are transferred to the smooth field sheet, and smooth sheet.

I. CROSSLINES ✓

Crosslines constitute 13% of the mainscheme hydrography of the 1:20,000 sheet and 20% on the 1:10,000 sheet. All soundings agree to 1 foot and meet the criteria set forth in Section 1.1.2 of the Hydrographic Manual.

J. JUNCTIONS ✓

This survey junctions with the following contemporary surveys:

H-10110	1:20,000	1984 ~~83~~ 84	To the West
LS-2081	1:80,000	1960	To the North
LS-1840	1:10,000	1945	To the East

Survey H-10110 is continuous with this survey and was performed in the same year with the same equipment. The junction is satisfactory. concur

LS-2081 soundings agree to within two feet for all but 6 of 62 common soundings. These six spurious soundings are:

LS-2081	H-10138	POSITION
161 feet	147 feet	Lat. 43°22.3'N Lon.77°47.4'W
134 feet	126 feet	Lat. 43°22.1'N Lon.77°47.4'W
95 feet	85 feet	Lat. 43°21.8'N Lon.77°46.5'W
110 feet	95 feet	Lat. 43°21.8'N Lon.77°46.1'W
120 feet	107 feet	Lat. 43°21.8'N Lon.77°45.7'W
144 feet	133 feet	Lat. 43°22.0'N Lon.77°45.6'W

The LS-2081 soundings are "in-between" soundings taken while the ship was apparently off course during sharp turns. The displacement of these soundings is less than 1.5mm at the scale of the earlier survey. It is recommended that the present soundings be charted. concur

There are only 6 soundings from LS-1840 common with this survey. All agree to one foot. concur

K. COMPARISON WITH PRIOR SURVEYS ✓

The survey area was previously covered by the following prior surveys:

See FOAC Report Section G

LS-605	1:60,000	1875
LS-614A	1:10,000	1875
LS-615	1:10,000	1875
LS-616	1:10,000	1875
LS-617	1:10,000	1875
LS-1606	1:80,000	1932

LS-605 junctions by one sounding at the northwest corner of the sheet. LS 1606 has three soundings near Braddock Point Light. All agree to ½ fathom.

The remaining prior surveys have no geodetic grid and were compared by aligning recognizable shoreline and near shore features. Overall agreement was excellent with all soundings agreeing to 2 feet. This is the approximate difference between the survey datums. On LS-616 the area within the 12 foot contour at Lat. 43°21.1′N, Lon 77°48.2′W appears smaller than found. This area was investigated by divers and confirmed to be a wreck site.① The rocks located in 1875 near the same area were also found on H-10138. The uncharted shoal found near Lat43°18.5′N, Lon 77°40.1′W, was barely skirted by sounding lines in 1875 on LS-616 and LS-615.② A danger to navigation report was issued on this feature. (see Appendix)

① 11 Wk at Latitude 43°20'55"N, Longitude 77°48'22"W

② 14.3 foot sounding at Latitude 43°18'29.85"N, Longitude 77°40'08.25"W (Pos 2486)

L. COMPARISON WITH THE CHART ✓

This survey was compared to charts 14804, 21st edition and 14805, 20th edition as the survey progressed. These charts were enlarged to the scale of the survey and all agree to the criteria of section 1.1.2 part B.II.1 of the Hydrographic Manual except the following.

See FOAC Report Section 7

14804/14805	LOCATION	H-10138	POSITION
43 feet	Lat. 43°21.4′N Lon. 77°46.0′W	58	1694 +1 Latitude 43°21'26.87"N Longitude 77°46'04.86"W
59 feet	Lat. 43°21.8′N Lon. 77°48.8′W	70	1342 +1 Latitude 43°21'46.62"N Longitude 77°48'46.98"W

14804/14805	LOCATION	H-10138	POSITION
86 feet	Lat. 43°21.9'N Lon. 77°43.8'W	125	1708
31 feet	Lat. 43°18.5'N Lon. 77°40.1'W	14	~~2303~~ 2486

Latitude 43°21'47.72"N
Longitude 77°43'53.96"W

Latitude 43°18'29.88"N
Longitude 77°40'08.25"W

All four charted soundings had no identifiable source or probable cause. In all, agreement was good and the current soundings should supersede all charted soundings. concur

PSR #2209; obstruction, sunken rocks, source unknown, Lat.43°21'15.00"N, Lon.77°48'06.00"W (AWOIS Position). This feature was developed by 50 meter splits. The bottom was found to be very broken. A spike found on a crossline in the area was investigated by divers and an underwater star pattern was performed to about 50 meters in each direction using a buoy placed at the spike's location. Visibility was about 12 feet. Numerous rocks were found but the spike could not be identified. The rock at position 2692 was thought to be the spike, but probably is not because of the least depths. It is recommended that the charted rocks be retained at position*2692 and at the spike near crossline position 1597 Lat.43°21'~~06.26~~ 05.90"N, Lon.77°48'14.~~88~~ 36"W* with the least depths found. Note that the rocks*from 1875 mentioned in PSR 2209 were found as positioned on that survey and it is obvious that the 1914 note of rocks covered two feet refer to these. Do not concur
* 11.0 RK (excessed)
* Chart rock covered 9ft. at this position.
* Chart two rocks covered 2.4 and 2.2 ft at LWD at latitude 43°20'42.45"N, 43°20'42.75"N, longitude 77°48'17.51"W, 77°48'15.13"W.

PSR #2210: dangerous submerged wreck, source unknown, Lat.43°21'~~18~~.00"N, Lon.77°48'~~06~~.00"W (AWOIS posit.). This feature was also developed by 50 meters splits which showed several suspicious spikes. These were investigated by divers and found to be natural rock outcroppings so extensive that a least depth could not be determined. This type of feature is common on the deeper mainscheme further east. It is recommended that the wreck symbol be retained, but the danger symbol is unwarranted. Do not concur, remain as charted.

The background investigation for PSR 2210 turned up evidence of a later wreck. The Times Union article of 18 August 1920 is included with the dive reports in the supporting data. This wreck may have been confused with the original wreck, which was first charted in 1896. Local knowledge and comparison with the prior surveys led to a diver investigation of the area just inside the 12 foot contour. Wreckage, located at position 2693, consisted of sizable wooden planking flush with the bottom and mostly covered with gravel and boulders. The boulders in this area were evenly distributed and turned out to be coal. Local knowledge indicates that the U.S Coast Guard or U.S. Army Corps of Engineers did some work in the area to remove wreckage in the 1950's but no record could be found at either office or the newspaper. The size of the wreck, 80'x38' is given in the articles and the orientation is an approximation. It is See article attached

recommended that a wreck symbol be placed on position 2693, Lat.43°20'55.~~33~~"N, Lon.77°48'21.87"W, as described. A danger symbol is not recommended. Chart wreck covered 11 ft at LWD.

The two six foot shoals found in the same area were developed by 50 meter splits and later by star patterns by the survey vessel. These features were very broad mounds and no point of least depth was apparent. The problem was compounded on the last day by a moderate swell. Chart according to smooth sheet.

PSR #00493; obstruction, source LNM 16/83 (7-1-83), Lat.43°~~43~~'17'.41~~.~~N, Lon.77°39'12.00"W (AWOIS posit). This feature was searched for and found by divers on JD 171 at Lat.43°17'33.93"N, Lon.77°40'13.~~36~~"W, with the aid of U.S. Coast Guard personnel who had been on the wreck earlier. The wreck is dangerous and was verified with the originator as the item described in the Local Notice to Mariners of 1 July 83. This item was further identified by local divers as the "Laura Grace" which was beached in the 1930's. A dangerous wreck concur symbol is recommended. It should be noted the position of the wreck from this survey is approximately 1 mile west of the AWOIS listing. Chart dangerous sunken wreck covered 1 ft at LWD

A submerged concrete pier was also found on JD 171 as position 1001. This item extends twice as far offshore as charted near Lat. 43°~~20.3~~'N, Lon. 77°~~42.6~~'W and is hazardous. Chart ruins as shown on smooth sheet.

A detached shoal was found and developed off Long Pond Road ~~near~~ at Lat. 43°18.5'N, Lon. 77°40.~~1~~'W. The least depth on this feature is 14.3 feet, found ~~near~~ at position ~~2382~~ on a crossline. This feature was barely skirted by all previous survey lines. Chart 14 ft depth at above position.

Information about PSR #00493, the submerged pier, and the uncharted shoal were immediately transferred to the U.S. Coast Guard 9th District and confirmed by letter. A copy of all correspondence is included in the Appendix.

Another detached shoal was developed at Lat. 43°~~18.0~~'N, Lon. 77°38'~~4~~"W. The least depth was found by sounding as 23.6 feet. ~~It was~~ The charted depth on this feature is 28 feet and should concur be superseded by the new data. Ref #2564/01 Chart 23 ft. depth at the above position.

There are seven charted water intakes and one sewage outfall in this area. Due to weather and personnel constraints, these features could not be inspected by divers. However, the sewage outfall was found by Fathometer as positions 1925-1927, Lat. 43°20'38.~~00~~" N, Lon. 77°44'11.~~00~~" W. This ~~least~~ minimum depth was found as 28 feet, which compares well with the charted depth of 27 feet. The charted position agrees well with the engineer's drawings, but the field positions differ from both by about 20 feet. The drawings show 12 diffusers buried 100 feet into the bottom that rise to about 3.5 feet off the bottom in a line tending N 15°21'28" E. The diffusers are

See Evaluation Section 7

on 25 foot centers between the following state plane coordinates:

N	1,219,832.02	N	1,219,566.81
E	725,342.81	E	725,269.99

The position discrepancy may be due to the x-z to geodetic conversion. The charted position should be shifted to match the field position. Positions 1925 and 1927 are the southern most diffuser and 1926 is the next one north. Also note that the chart datum is the North American Datum of 1902.

The three intakes ~~at~~ near Lat. 43°16.~~0~~5'N, Lon. 77°37.~~3~~1'W were detected on a crossline near position 2572. These positions are also slightly shifted from the charted positions, possibly due to the state plane to geodetic coordinate shift as discussed above. The charted positions should be shifted only if this discrepancy can be confirmed. All other intakes should be retained as charted until further investigation is possible.

not shown on smooth sheet. gm

concur

The charted piles at the mouth of Braddock Bay, Lat. 43°18.7'N, Lon. 77°42.5'W were found by aerial reconnaissance at the beginning of the survey and positioned during hydrography. However, a single pile, charted south of the east entrance light was not found. This pile was searched for by boat and repeatedly by air on clear days with the bottom plainly visible. Nothing was found and local knowledge indicates all piles in this area were removed when the spit was rebuilt. The other piles, actually a railroad trestle in ruins, should be retained as found on the survey. Remove single pile south of entrance and chart the others according to smooth sheet.

A crib charted ~~at~~ near Lat. 43°17.4'N, Lon. 77°40.0'W was found at position 2646. This feature is in ruins and is bare at all water levels. This item should be charted at the new position. chart crib in ruins (5 ft above LWD) at Latitude 43°17'21.71"N, Longitude 77°40'11.98"W

concur

A rock charted at Lat. 43°16.5'N, Lon. 77°38.1'W was found as charted at position 2517.* The charted buoy, Rigney Bluff buoy was not found. The maintaining organization, the New York Department of Parks and Recreation, confirmed that it was pulled early this year and that is does mark the above rock. These features should be retained at the new positions. chart rock uncovers 2 ft at LWD at latitude 43°16'31.44"N, longitude 77°38'03.76"W *Buoy is seasonal, remain as charted.

concur

It is recommended that the following new items be charted as described in H-10138:

concur

Item	Position	Latitude	Longitude
Rock awash	2344	43°18'~~30~~29.00"	77°~~42~~45'~~00~~28.81"
Groin	1893	43°20'~~12~~13.39"	77°45'~~12~~14.64"
Rock	1948	43°20'~~24~~26.44"	77°45'~~30~~28.56"
Obstruction	1511	43°20'~~24~~21.71"	77°46'~~54~~52.57"

Some problem was encountered with the charted shoreline, while some discrepancies can be attributed to the chart enlargement used. The shoreline appears to be charted about 100 meters north of its true position and the following creek mouths are charted 100-200 meters east of their true positions:

Cowsucker Ck.	Lat. 43°20.7'N	Lon. 77°50.2'W
Brush Ck.	Lat. 43°20.4'N	Lon. 77°48.2'W
East Ck.	Lat. 43°20.4'N	Lon. 77°47.8'W
Round Pond Ck.	Lat. 43°16.6'N	Lon. 77°38.6'W

In all cases the T-sheet shoreline as edited on the smooth field sheet should be used. chart shoreline revisions as shown on smooth sheet.

M. ADEQUACY OF SURVEY ✓

This survey is complete and adequate to warrant it's use to supersede prior surveys for charting in the common area except as listed below. The following items will be investigated by divers in 1985 and information forwarded. See Evnl Report Section 9

Three water intakes near Lat. 43°16.5'N, Lon. 77°37.~~3~~1'W Remains charted

Three water intakes near Lat. 43°17.~~0~~6'N, Lon. 77°3~~8~~7.~~0~~6'W Remains charted

Detached shoal at Lat. 43°~~18.0~~ 15'58.12"N, Lon. 77°38.~~4~~1952"W

Detached shoal at Lat. 43°18.~~5~~27.88"N, Lon. 77°40.~~1~~08.25"W

Water intake near Lat. 43°20.5'N, Lon. 77°47.3'W Remains charted

N. AIDS TO NAVIGATION ✓

All fixed and non-fixed aids to navigation in the survey area were located and comparisons made between their charted, Light List (volume IV, 1984), and surveyed positions and descriptions were made. All aids were found to adequately serve the purposes for which they were established. concur

The characteristic of Braddock Bay Entrance East Light has been changed from flashing white to flashing green 4S. See Special LNM 2-22 May 1984.

The following private aids were located as new aids and are recommended for charting: concur

Sandy Creek Entrance Light	FL 2S Strobe
Sandy Creek Front Range Light	FR
Sandy Creek Rear Range Light	FR

Position information for these aids and revised positions for all others can be found on the included form 76-40. The Aids to Navigation team in Cleveland, OH indicated that the Sandy

Creek Entrance Light is either technically not a strobe light or it is illegal. This had not been resolved by the close of the season.

The private aids in Braddock Bay, Light List #340.10 - 340.40 were located by hydrographic fix methods. These aids are non-fixed, non-floating and are relocated as necessary. At the time of the survey, Rigney Bluff buoy, Page 21, Light List IV, had been removed for the winter as noted in Section L.

The following bridge clearances were found on 30 May 1984, JD 151:

1. Fixed bridge at entrance to Cranberry Pond from Long Pond. Lat. 43°17.9'N, Lon. 77°41.1'W, vertical clearance ~~0.5~~ 4.3 feet at ~~1235Z~~ LWD.

2. Fixed bridge at entrance to Long Pond, Lat. 43°17.6'N, Lon. 77°40.7'W, vertical clearance ~~5.0~~ 8.5 feet at ~~1240Z~~ LWD

3. Fixed bridge at entrance to Buck Pond, Lat. 43°16.3'N, Lon. 77°39.4'W, vertical clearance ~~3.5~~ 7.3 feet at ~~1255Z~~ LWD.

4. Fixed bridge at entrance to Round Pond Lat. 43°16.6'N, Lon. 77°38.7'W, vertical clearance ~~3.0~~ 6.8 at ~~1300Z~~ LWD.

Note that Long Pond Ck and Buck Pond Ck are non-navigable because of dry or shallow mouths. The bridge over Round Pond Ck is the limit of navigation.

The following bridges were located and clearances measured on 25 July 1984, JD 207.

1. Fixed bridge on Button wood Ck at Lat. 43°18.1N, LWD. Lon. 77°43.4'W, vertical clearance is ~~5.5~~ 8.8 feet at ~~1751Z~~.

2. Fixed bridge on Salmon Ck at Lat. 43°18.9'N, LWD. Lon. 77°43.4'W, vertical clearance is ~~8.5~~ 11.8 at ~~1648Z~~.

~~The bridge over~~ Salmon Ck is considered navigable to small vessels.

The bridge over Sandy Creek at Lat. 43°21.0'N, Lon. 77°53.6'W was measured at ~~12.0~~ 13.6 feet at ~~1739Z~~ LWD on July 2, 1984, JD 184. ~~This bridge~~ Sandy Creek is navigable to small vessels.

All landmarks visible from this survey area and of value to the navigator were inspected and the results are found on the attached 76-40's. The landmarks listed as new are new construction and could not be located to third order due to time and personnel constraints. The radio mast is notable because it is marked with strobe lights and can be seen in Canadian waters. The stack is also marked with strobe lights and it's twin is currently under construction. The positions of these objects are from private surveys and were verified by

sextant cuts taken at positions 2164 and 2250 and by T-2 cuts from station PK Slavin (s/n 627). The windmotor is also new construction located by sextant resection. A check angle was taken with good closure.

O. STATISTICS

On the 1:20,000 sheet:

Number of positions	2720
LNM of mainscheme	234.2
LNM of crossline	31.2
LNM of development	58.2
Total miles	323.6
Number of bottom samples	32
Number of TDC casts	6
Number of barchecks	28
Sq. nautical miles	30.1

On the 1:10,000 inset

Number of positions	417
LNM of mainscheme	7.3
LMN of crossline	1.5
LNM of development	16.0
Total Miles	24.8
Sq. N miles	1.3
Number of Bottom samples	4
Number of TDC cast	0
Number of barchecks	4

One water level gage was maintained during this survey.

P. Miscellaneous

Operations were severely hampered this summer by weather. It is apparent from the progress sketch that July was hardest hit. Throughout the season, the typical hydro day started fairly calm, but would freshen by mid-afternoon: operations ceased when data quality was affected. By this time, however, it would not be possible to come close ashore to system check or to barcheck. Subsequent instrument checks were scrutinized to ensure that the data was reliable.

Sand waves were apparent across the mouth of Braddock Bay during hydrography and from aerial reconnaissance. These waves tended northwest to southeast.

Large false returns can be seen on many of the Fathometer records. These were brought to the attention of Mike Voiland of the Sea Grant Office, State University of New York,

Brockport, NY who operated a research vessel on Lake Ontario. He identified these traces as schools of alewives fish.

Lake currents were investigated and found to be generally eastward flowing in this area although wind generated effects were larger. All currents were much less than ½ knot.

On August 22, 1984 the boundary of the upwellings described in the accompanying report "The Effect of Lake Ontario Water Temperatures on Hydrography" was visible on the surface as a "scum" line between darker, inshore water and greener, offshore water. The temperatures at the surface were 69°F offshore and 59°F inshore of this line which was about 0.5 to 1.5 miles off the beach and extended for over 12 miles from Wautoma Beach to the mouth of the Genesee River.

Refer to Section D of this report

Several reports of "river currents" in the lake were investigated and believed to be localized events caused by warm water being trapped inshore during upwellings. As the cold water encroaches in the shallow, the warmer water may wash out from shore at a low spot much like a rip tide. This is supported by the seiche-like behavior of the upwellings and the bathymmetry of the area where the "rivers" are reported.

Geographical names were investigated and all were found to be adequate and in local usage. Facility names are correct with the following exceptions:

1. "Manitou Marina" at Lat. 43°18.5'N, Lon. 77°45.5'W should be changed to "Braddock Bay Hotel Marina". The ramp is still existent. They also have fuel and supplies.

2. "Larry's Marina" at Lat. 43°18.3'N, Lon. 77°45.0'W should be deleted. The ramp notation should be retained. The establishment is now a bar.

3. "Skinner's Marina" at Lat. 43°19.1'N, Lon. 77°43.2'W should be changed to "Miller's Boathouse". This facility still has a ramp, hoist and fuel.

4. "Braddock Marine" at Lat. 43°18.0'N, Lon. 77°42.8'W is more correctly "Braddock Bay Marina". This facility has fuel, a ramp, pumpout equipment, supplies, groceries, repair services and marine supplies.

5. "Braddock Bay State Park" at Lat. 43°18.2'N, Lon. 77°43.5'W is now operated by the city of Greece. The correct name is "Braddock Bay Park".

The sublocality for this survey is North Hamlin to Rochester, not Point Breeze to Oswego as shown in the sounding volumes.

Q. RECOMMENDATIONS ✓

In addition to the extra work mentioned in Section M of this report, effort will be made during the 1985 season to locate all new landmarks to third order standards and obtain their heights. No 1985 season was accomplished. The project was postponed.

R. AUTOMATED DATA PROCESSING ✓

Programs used during field data acquisition and field processing of this survey are as follows:

		VERSION
RK 210	Grid, Signal and Lattice Plot	4/18/75
RK 212	Visual Station Table Load	4/01/74
RK 216	Range Azimuth Non-real Time Plot	2/09/81
RK 300	Utility Computations	10/21/80
RK 330	Reformat and Data Check	5/04/76
RK 407	Geodetic Inverse/Direct Computations	9/25/78
RK 530	Layer Corrections for Velocity	5/10/76
AM 602	ELINORE	12/08/83

S. REFERENCE TO REPORTS ✓

Control Report for OPR-V255-84

Special Report, "Effect of Lake Ontario Water Temperatures on Hydrography"

Respectfully Submitted,

Franklin E. Ohlinger

Franklin E. Ohlinger, LTJG
OIC HFP-4

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE

FIELD WATER LEVEL NOTE

Water levels for Lake Ontario, southern shore from Pt. Breeze to Oswego, are referred to the International Great Lakes Datum Of 1955 which is 242.8 feet above mean water level at Father Point, Quebec.It is also referred to as Low Water Datum. Water levels for smooth plotting were reduced in the field from Oak Orchard water level gage data.

Water level gages were located at the following sites during the 1984 season. Rochester gage is a permanent installation.

Site & Operator	Location	Period	Zone
Oak Orchard Harbor #905-2070 National Ocean Service	43°21.3 78°11.5	5/30/84 10/11/84	78°10 - 77°45
Rochester #905-2058 National Ocean Service	43°16.2 77°37.5	5/30/84 10/11/84	78°00 - 77°30

The Oak Orchard gage was operated by a contract observer and records were forwarded by HFP-4. Some problems were encountered with missing times and heights but none are believed to be during times of hydrography. The gage was operated on Eastern Standard Time, 75°W, and ZETG was reportedly 249.827 feet.

LEVELS

Levels were run before and after hydrography in 1984 by HFP-4 on both gages. No significant difference in elevations were found.

ZONING

As Rochester gage data was not available for comparison with the Oak Orchard data, zoning was not used in the field reduction of soundings.

Currents within the Lake Ontario Project area are negligible.

SIGNAL LIST

OPR V255-MFP-84

MFP 20-1-84

H-10138

Minor changes in position due to TENCOR Adjustment?

614	6	43	21	24434	077	54	44466	250	0000	000000	MATTLE, 1984
615	5	43	21	23466	077	54	17865	139	0000	000000	TEMP MAXOM, 1984
616	5	43	21	09195	077	53	30818	139	0000	000000	TEMP SANDY. 1984
617	7	43	20	59538	077	53	36657	139	0000	000000	SANDY BRIDGE, 1984
618	6	43	20	57993	077	52	29990	139	0000	000000	BENEDICT BEACH, 1984
619	6	43	20	51945	077	50	39882	250	0000	000000	BRADFIELD, 1984
620	6	43	20	36397	077	48	57895	250	0000	000000	PK ARFT, 1984
621	6	43	20	23806	077	47	12532	139	0000	000000	SERVIS, 1984
622	6	43	20	29798	077	46	02674	250	0000	000000	METHERELL, 1984
623	6	43	20	28124	077	45	44037	139	0000	000000	STONE, 1984
624	5	43	19	50794	077	43	57279	250	0000	000000	YEAGER ECC, 1984
625	6	43	20	04753	077	44	55230	139	0000	000000	PAYNE ROAD, 1984
626	6	43	19	50447	077	43	57174	139	0000	000000	YEAGER, 1984 *
627	5	43	19	24751	077	42	48576	250	0000	000000	PK SLAVIN, 1984
628	6	43	18	52847	077	43	41674	250	0000	000000	MEGAN, 1984
629	6	43	18	37234	077	42	24874	250	0000	000000	TEMP POPLAR, 1984
630	3	43	17	39768	077	40	39560	250	0000	000000	WATKINS, 1984
631	6	43	15	49794	077	35	57273	250	0018	000000	ROCHESTER HBR LT, 1984 *
635	4	43	18	35564	077	42	34188	250	0000	000000	TEMP BAY, 1984 *
640	6	43	19	04999	077	43	42219	139	0000	000000	MANITOU OVERPASS, 1984
400	6	43	20	27043	077	45	44357	139	0019	000000	BRADDOCK PT. LT 1984
405	6	43	15	49324	077	35	57654	250	0000	000000	USE-9, 1984
410	6	43	16	07185	077	37	51663	139	0000	000000	ROCHESTER GAS AND ELECTRIC PLANT 7, S. STACK, 1984 1969

* Stations located by HFP4
All other stations located by AMC Geodetic Control Group

See next page for positions used on the smooth sheet, preliminary adjusted field positions.

Year established

Preliminary Adjusted Field Pos. LAKE ONTARIO

RIFIED SIGNAL LIST - OPR= V255-HFP-84 SHEET= HFP 2[illegible]84 REGISTR[illegible]= H10138

PREPARED BY: GF/VEN 2/19/8
CHECKED BY: VGF

Year established	SIGNAL NUMBER	NAME	LATITUDE	LONGITUDE	ELEV	GP SOURCE	LIGHT LIST INFO
1984	614	MATTLE	43-21-24.428	77-54-44.476	77.13	Field	"COPY"
1984	615	TEMP MAXOM	43-21-23.462	77-54-17.870	76.50	"	
1984	616	TEMP SANDY	43-21-09.193	77-53-30.820	75.72	"	
1984	617	SANDY BRIDGE	43-20-59.537	77-53-36.658	80.56	"	
1984	618	BENEDICT BEACH	43-20-57.994	77-52-29.991	76.27	"	
1984	619	BRADFIELD	43-20-51.956	77-50-39.882	76.60	"	
1984	620	PK ARFT	43-20-36.405	77-48-57.896	77.46	"	
1984	621	SERVIS	43-20-23.811	77-47-12.533	77.04	"	
1984	622	MATHERELL	43-20-29.801	77-46-02.674	76.50	"	
1984	623	STONE	43-20-28.126	77-45-44.037	78.42	"	
1984	624	YEAGER ECC	43-19-50.795	77-43-57.279	76.70	"	
1984	625	PAYNE ROAD	43-20-04.753	77-44-55.230	76.50	"	
1984	626	YEAGER	43-19-50.446	77-43-57.175	77.38	"	
1984	627	PK SLAVIN	43-19-24.749	77-42-48.578	75.64	"	
1984	628	MEGAN	43-18-52.846	77-43-41.676	78.92	"	
1984	629	TEMP POPLAR	43-18-37.232	77-42-24.877	76.29	"	
1984	630	WATKINS	43-17-39.764	77-40-39.565	77.77	"	
1984	631	ROCHESTER HARBOR LT	43-15-49.785	77-35-57.283	91.80	"	
1984	635	TEMP BAY	43-18-35.563	77-42-34.191	76.15	"	
1984	640	MANITOU OVERPASS	43-19-04.908	77-43-42.220	86.84	"	
1984	400	BRADDOCK POINT LIGHT	43-20-27.045	77-45-44.357	93.19	"	
1984	405	USE 9	43-15-49.384	77-35-57.660	76.73	"	
1969	410	ROCHESTER G AND E No 7 S STK	43-16-07.185	77-37-51.663		"	

NOAA FORM 76-40
(8-74)

Replaces C&GS Form 567.

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

ORIGINATING ACTIVITY
- [X] HYDROGRAPHIC PARTY
- [ ] GEODETIC PARTY
- [ ] PHOTO FIELD PARTY
- [ ] COMPILATION ACTIVITY
- [ ] FINAL REVIEWER
- [ ] QUALITY CONTROL & REVIEW GRP.
- [ ] COAST PILOT BRANCH

(See reverse for responsible personnel)

[ ] TO BE CHARTED [X] TO BE REVISED [ ] TO BE DELETED	REPORTING UNIT (Field Party, Ship or Office): HFP-4	STATE: New York	LOCALITY: Monroe County	DATE: 9/26/84

The following objects HAVE [X] HAVE NOT [ ] been inspected from seaward to determine their value as landmarks.

OPR PROJECT NO.	JOB NUMBER	SURVEY NUMBER	DATUM
OPR-V255-84		H-10138	NA 1927

CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses)	POSITION LATITUDE ° ′	LATITUDE // D.M. Meters	POSITION LONGITUDE ° ′	LONGITUDE // D.P. Meters	METHOD AND DATE OF LOCATION (See instructions on reverse side) OFFICE	FIELD	CHARTS AFFECTED
LIGHT	Braddock Point Light LL# 341	43 20	27.0432	77 45	44.3566		F-2-6-L 6/84	14805
LIGHT	Braddock Bay Entrance East Light LL# 339	43 18	43.0017	77 42	30.5423		F-2-6-L 6/84	14805
LIGHT	Braddock Bay Entrance West Light LL# 340	43 18	44.7313	77 42	32.8859		F-2-6-L 6/84	14805
LIGHT	Rochester Harbor Light LL# 337	43 15	49.794	77 35	57.273		F-2-6-L 6/84	14805
	L-1155(86)							

48.

RESPONSIBLE PERSONNEL		
TYPE OF ACTION	**NAME**	**ORIGINATOR**
OBJECTS INSPECTED FROM SEAWARD	F. E. Ohlmeyer	☐ PHOTO FIELD PARTY ☒ HYDROGRAPHIC PARTY ☐ GEODETIC PARTY ☐ OTHER *(Specify)*
POSITIONS DETERMINED AND/OR VERIFIED	F. E. Ohlmeyer	FIELD ACTIVITY REPRESENTATIVE
		OFFICE ACTIVITY REPRESENTATIVE
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES		☐ REVIEWER ☐ QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE

INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'

(Consult Photogrammetric Instructions No. 64,

OFFICE

I. OFFICE IDENTIFIED AND LOCATED OBJECTS

Enter the number and date (including month, day, and year) of the photograph used to identify and locate the object.

EXAMPLE: 75E(C)6042
8-12-75

FIELD

I. NEW POSITION DETERMINED OR VERIFIED

Enter the applicable data by symbols as follows:

F - Field	P - Photogrammetric
L - Located	Vis - Visually
V - Verified	
1 - Triangulation	5 - Field identified
2 - Traverse	6 - Theodolite
3 - Intersection	7 - Planetable
4 - Resection	8 - Sextant

A. Field positions* require entry of method of location and date of field work.

EXAMPLE: F-2-6-L
8-12-75

*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.

FIELD (Cont'd)

B. Photogrammetric field positions** require entry of method of location or verification, date of field work and number of the photograph used to locate or identify the object.

EXAMPLE: P-8-V
8-12-75
74L(C)2982

II. TRIANGULATION STATION RECOVERED

When a landmark or aid which is also a triangulation station is recovered, enter 'Triang. Rec.' with date of recovery.

EXAMPLE: Triang. Rec.
8-12-75

III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH

Enter 'V-Vis.' and date.

EXAMPLE: V-Vis.
8-12-75

**PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.

☆ U.S. GPO:1975-0-665-080/1155

NOAA FORM 76-40
(8-74)

Replaces C&GS Form 567.

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

NONFLOATING AIDS ~~OR LANDMARKS~~ FOR CHARTS

ORIGINATING ACTIVITY
- [X] HYDROGRAPHIC PARTY
- [X] GEODETIC PARTY
- [ ] PHOTO FIELD PARTY
- [ ] COMPILATION ACTIVITY
- [ ] FINAL REVIEWER
- [ ] QUALITY CONTROL & REVIEW GRP.
- [ ] COAST PILOT BRANCH

(See reverse for responsible personnel)

[X] TO BE CHARTED / [ ] TO BE REVISED / [ ] TO BE DELETED	REPORTING UNIT (Field Party, Ship or Office)	STATE	LOCALITY	DATE
	HFP-4	NEW YORK	MONROE COUNTY	9/26/84

The following objects HAVE [X] HAVE NOT [ ] been inspected from seaward to determine their value as landmarks.

OPR PROJECT NO.	JOB NUMBER	SURVEY NUMBER	DATUM
OPR-V255-84		H-10138	A 1927

CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses)	POSITION LATITUDE ° ′	LATITUDE ″ D.M. Meters	POSITION LONGITUDE ° ′	LONGITUDE ″ D.P. Meters	METHOD AND DATE OF LOCATION (See instructions on reverse side) OFFICE	FIELD	CHARTS AFFECTED
LIGHT	Sandy Creek Entrance Light (priv. maint'd, high intensity strobe)	43 21	~~10.9156~~	77 53	~~28.7949~~		F-2-6-L 6/84	14805
LIGHT	Sandy Creek Front Range Light (priv. maint'd, F R)	43 21	06.1244	77 53	31.4487		F-2-6-L 6/84	14805
LIGHT	Sandy Creek Rear Range Light (priv. maint'd, F R)	43 21	04.9214	77 53	32.3082		F-2-6-L 6/84	14805
	NOTE: true azimuth of Sandy Creek Range - 207°.							
	L-1155(86)							

49.

RESPONSIBLE PERSONNEL		
TYPE OF ACTION	**NAME**	**ORIGINATOR**
OBJECTS INSPECTED FROM SEAWARD	F. E. Ohlmeyer	☐ PHOTO FIELD PARTY ☒ HYDROGRAPHIC PARTY ☐ GEODETIC PARTY ☐ OTHER *(Specify)*
POSITIONS DETERMINED AND/OR VERIFIED	F. E. Ohlmeyer	FIELD ACTIVITY REPRESENTATIVE
		OFFICE ACTIVITY REPRESENTATIVE
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES		☐ REVIEWER ☐ QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE

INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'

(Consult Photogrammetric Instructions No. 64,

OFFICE

I. OFFICE IDENTIFIED AND LOCATED OBJECTS

Enter the number and date (including month, day, and year) of the photograph used to identify and locate the object.

EXAMPLE: 75E(C)6042
8-12-75

FIELD

I. NEW POSITION DETERMINED OR VERIFIED

Enter the applicable data by symbols as follows:

F - Field	P - Photogrammetric
L - Located	Vis - Visually
V - Verified	
1 - Triangulation	5 - Field identified
2 - Traverse	6 - Theodolite
3 - Intersection	7 - Planetable
4 - Resection	8 - Sextant

A. Field positions* require entry of method of location and date of field work.

EXAMPLE: F-2-6-L
8-12-75

*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.

FIELD (Cont'd)

B. Photogrammetric field positions** require entry of method of location or verification, date of field work and number of the photograph used to locate or identify the object.

EXAMPLE: P-8-V
8-12-75
74L(C)2982

II. TRIANGULATION STATION RECOVERED

When a landmark or aid which is also a triangulation station is recovered, enter 'Triang. Rec.' with date of recovery.

EXAMPLE: Triang. Rec.
8-12-75

III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH

Enter 'V-Vis.' and date.

EXAMPLE: V-Vis.
8-12-75

**PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.

☆ U.S. GPO:1975-0-665-080/1155

NOAA FORM 76-40
(8-74)

Replaces C&GS Form 567.

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

~~NONFLOATING AIDS OR~~ LANDMARKS FOR CHARTS

ORIGINATING ACTIVITY
- [X] HYDROGRAPHIC PARTY
- [ ] GEODETIC PARTY
- [ ] PHOTO FIELD PARTY
- [ ] COMPILATION ACTIVITY
- [ ] FINAL REVIEWER
- [ ] QUALITY CONTROL & REVIEW GRP.
- [ ] COAST PILOT BRANCH

(See reverse for responsible personnel)

[ ] TO BE CHARTED [X] TO BE REVISED [ ] TO BE DELETED	REPORTING UNIT (Field Party, Ship or Office): HFP-4	STATE: NEW YORK	LOCALITY: MONROE COUNTY	DATE: 9/26/84

The following objects HAVE [X] HAVE NOT [ ] been inspected from seaward to determine their value as landmarks.

OPR PROJECT NO.	JOB NUMBER	SURVEY NUMBER	DATUM
OPR -V255-84		H-10138	NA 1927

CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses)	POSITION LATITUDE ° ′	LATITUDE ″ D.M. Meters	POSITION LONGITUDE ° ′	LONGITUDE ″ D.P. Meters	METHOD AND DATE OF LOCATION (See instructions on reverse side) OFFICE	FIELD	CHARTS AFFECTED
STACK	(Rochester Gas and Electric Plant No 7 N Stack, 1969)	43 16	08.3620	77 37	51.6635		F-3-6-V 6/84	14804
STACK	(Rochester Gas and Electric Plant No 7 S Stack, 1969)	43 16	07.1848	77 37	51.6634		F-3-6-V 6/84	14804
STACKS	(Rochester Kodak Park N Stack,1969)	43 11	57.8578	77 37	54.3198		F-3-8-V 9/84	14804
	C-1155(86)							

50

RESPONSIBLE PERSONNEL		
TYPE OF ACTION	NAME	ORIGINATOR
OBJECTS INSPECTED FROM SEAWARD	F.E. Ohlmer	☐ PHOTO FIELD PARTY ☒ HYDROGRAPHIC PARTY ☐ GEODETIC PARTY ☐ OTHER *(Specify)*
POSITIONS DETERMINED AND/OR VERIFIED	F.E. Ohlmer	FIELD ACTIVITY REPRESENTATIVE
		OFFICE ACTIVITY REPRESENTATIVE
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES		☐ REVIEWER ☐ QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE

INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'

(Consult Photogrammetric Instructions No. 64,

OFFICE

I. OFFICE IDENTIFIED AND LOCATED OBJECTS

Enter the number and date (including month, day, and year) of the photograph used to identify and locate the object.

EXAMPLE: 75E(C)6042
8-12-75

FIELD

I. NEW POSITION DETERMINED OR VERIFIED

Enter the applicable data by symbols as follows:

F - Field	P - Photogrammetric
L - Located	Vis - Visually
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1 - Triangulation	5 - Field identified
2 - Traverse	6 - Theodolite
3 - Intersection	7 - Planetable
4 - Resection	8 - Sextant

A. Field positions* require entry of method of location and date of field work.

EXAMPLE: F-2-6-L
8-12-75

*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.

FIELD (Cont'd)

B. Photogrammetric field positions** require entry of method of location or verification, date of field work and number of the photograph used to locate or identify the object.

EXAMPLE: P-8-V
8-12-75
74L(C)2982

II. TRIANGULATION STATION RECOVERED

When a landmark or aid which is also a triangulation station is recovered, enter 'Triang. Rec.' with date of recovery.

EXAMPLE: Triang. Rec.
8-12-75

III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH

Enter 'V-Vis.' and date.

EXAMPLE: V-Vis.
8-12-75

**PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.

☆ U.S.GPO:1975-0-665-080/1155

NOAA FORM 76-40
(8-74)

Replaces C&GS Form 567.

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

~~NONFLOATING AIDS OR~~ LANDMARKS FOR CHARTS

ORIGINATING ACTIVITY
- [X] HYDROGRAPHIC PARTY
- [ ] GEODETIC PARTY
- [ ] PHOTO FIELD PARTY
- [ ] COMPILATION ACTIVITY
- [ ] FINAL REVIEWER
- [ ] QUALITY CONTROL & REVIEW GRP.
- [ ] COAST PILOT BRANCH

(See reverse for responsible personnel)

[X] TO BE CHARTED [ ] TO BE REVISED [ ] TO BE DELETED	REPORTING UNIT (Field Party, Ship or Office)	STATE	LOCALITY	DATE
	HFP-4	NEW YORK	MONROE COUNTY,	9/26/84

The following objects HAVE [X] HAVE NOT [ ] been inspected from seaward to determine their value as landmarks.

OPR PROJECT NO.	JOB NUMBER	SURVEY NUMBER	DATUM
OPR-V255-84		H-10138	NA 1927

CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses)	POSITION LATITUDE ° ′	LATITUDE ″ D.M. Meters	POSITION LONGITUDE ° ′	LONGITUDE ″ D.P. Meters	METHOD AND DATE OF LOCATION (See instructions on reverse side) OFFICE	FIELD	CHARTS AFFECTED
R MAST	New construction, position from priv. survey; 610' above grade. -strobe-	43 10	14.1	77 40	23.3		F-3-8-V 9/84	14804 14805
WINDMOTOR	New construction, 100'above grade	43 20	59.25	77 56	10.34		F-3-8-L 9/84	14805
STACK	New construction, position from priv. survey; 410' above grade. -strobe-	43 11	52.6	77 39	55.3		F-3-8-V 9/84	14804 14805
	L-1155(86)							

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RESPONSIBLE PERSONNEL		
TYPE OF ACTION	NAME	ORIGINATOR
OBJECTS INSPECTED FROM SEAWARD	T. E. Ohlmeyer	☐ PHOTO FIELD PARTY ☑ HYDROGRAPHIC PARTY ☐ GEODETIC PARTY ☐ OTHER *(Specify)*
POSITIONS DETERMINED AND/OR VERIFIED	T. E. Ohlmeyer	FIELD ACTIVITY REPRESENTATIVE
		OFFICE ACTIVITY REPRESENTATIVE
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES		☐ REVIEWER ☐ QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE

INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'

(Consult Photogrammetric Instructions No. 64,

OFFICE

I. OFFICE IDENTIFIED AND LOCATED OBJECTS

Enter the number and date (including month, day, and year) of the photograph used to identify and locate the object.

EXAMPLE: 75E(C)6042
8-12-75

FIELD

I. NEW POSITION DETERMINED OR VERIFIED

Enter the applicable data by symbols as follows:

F - Field	P - Photogrammetric
L - Located	Vis - Visually
V - Verified	
1 - Triangulation	5 - Field identified
2 - Traverse	6 - Theodolite
3 - Intersection	7 - Planetable
4 - Resection	8 - Sextant

A. Field positions* require entry of method of location and date of field work.

EXAMPLE: F-2-6-L
8-12-75

*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.

FIELD (Cont'd)

B. Photogrammetric field positions** require entry of method of location or verification, date of field work and number of the photograph used to locate or identify the object.

EXAMPLE: P-8-V
8-12-75
74L(C)2982

II. TRIANGULATION STATION RECOVERED

When a landmark or aid which is also a triangulation station is recovered, enter 'Triang. Rec.' with date of recovery.

EXAMPLE: Triang. Rec.
8-12-75

III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH

Enter 'V-Vis.' and date.

EXAMPLE: V-Vis.
8-12-75

**PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SURVEY
Atlantic Marine Center
439 W. York St.
Norfolk, VA 23510

TO: Charting and Geodetic Services 26 September 1984
N/CG223

FROM: F.E. Ohlinger
N/MOA233x4

SUBJ: Coast Pilot Report

Coast Pilot 6 should be amended as follows based on information obtained during hydrographic surveys H-10110 and H-10138 performed under OPR-V255-84.

page 125, line 20L ...within 1 mile offshore except near Latitude 43° 18.5' Longitude 77° 40.1' where shoaling to 14 feet occurs 1.2 mile offshore. Numerous potable water intakes are within 2.5 miles NW of the Genesee River and a dangerous wreck covered 1.4 feet is 0.2 miles offshore at Latitude 43° 17.6', Longitude 77° 40.2'; caution is advised

page 125, line 31L ...midchannel line. In 1984 the controlling depth...

All else remains the same.

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SURVEY

TO: Chart Information
N/CG 222

29 June 1984

FM: F.E. Ohlinger, OIC
Hydrographic Field Party 4
N/MOA 233

SUBJ: Hazards to Navigation

The included notice to the U.S. Coast Guard was transmitted by telephone on 26 June 1984. Additional information follows:

The wreck is PSR 00493 and was found visually with the aid of U.S. Coast Guard personnel. The item was investigated by NOAA divers on 19 June 1984 and located by range azimuth techniques using Del Norte and Wild T-2 equipment. It is position 1002, HFP 20-1-84. An "H" number is yet to be assigned. Soundings were reduced using a field water level of 3.7 feet. The origin of PSR 00493 is an item in the Local Notices to Mariners, 16/83. The originator was Gordon Sprague of Kendall, N.Y. who was contacted to ensure the identity and position of the wreck. The LNM position is inaccurate.

The submerged pier ruins were also located that day. They are a continuation of the exposed pier shown on the Braddock Heights quadrangle. This position is 1001 and is also reduced by 3.7 feet.

The shoal spot off Oak Orchard Creek was located on 21 June 1984 by NOAA divers. A buoyed weight was dropped and located by range azimuth techniques with the above equipment as position 2127, H-10110, HFP 20-2-83. A 100 meter line was attached and used to guide a circular underwater search. Visibility was 15 feet. The least depth was found atop a 2 foot diameter boulder in a field of boulders and located as position 2142. This depth was reduced by 3.7 feet.

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SURVEY

25 June 1984

TO: Commander (oan)
U.S. Coast Guard 9th District
1240 E. 9th St.
Cleveland, Ohio 44199

F.E. Ohl

FM: F.E. Ohlinger, LT(jg), OIC
Hydrographic Field Party 4
439 W. York St.
Norfolk, Va 23510

SUBJ: Hazards to Navigation

Three hazards to navigation have been found during hydrographic operations conducted by this party. Preliminary data indicates the following:

A wreck exists in eight feet of water near Lat. 43/17/33.9N, Long. 77/40/13.4W and is coveredby 1.4 feet at the International Great Lakes Datum of 1955 (IGLD). This point is approximately 280 meters from shore. This item is identical to and supersedes an obstruction reported in LNM 16/83 at 3.5 statute miles bearing 307° true from the Rochester Light.

A submerged pier ruins extends 215 meters from shore to Lat. 43/19/19.7 N, Long. 77/42/38.1 W. It is covered by 0.8 feet at IGLD.

A point covered by 5.7 feet at IGLD was located on the shoal east of Point Breeze at Lat. 43/22/50.5 N, Long. 78/10/08.1 W. This point is approximately 830 meters from shore.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE

25 September 1984

TO: Chart Information
N/CG 222

F.E. Ohlinger

FROM: F.E. Ohlinger, OIC
Hydrographic Field Party 4
N/MOA 233

SUBJ: Danger to Navigation

The enclosed letter to the U.S. Coast Guard was transmitted after rough plotting was completed on H-10138. The least depth on the sheet was not reduced by an approximate water level of 2.0 feet. The sounding occurs on a crossline between positions 2302 and 2303. This report may be amended as the shoal is further developed.

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SURVEY

25 September 1984

TO: Commander
U.S. Coast Guard 9th District
1240 E. 9th St.
Cleveland, OH 44199

FROM: F.E. Ohlinger, LTJG, OIC
Hydrographic Field Party 4
439 W. York St.
Norfolk, VA 23510

SUBJ: Danger to Navigation

This is to confirm the telephone report of 25 September 1984.

An uncharted shoal has been located during hydrographic operarions conducted along the south shore of Lake Ontario near Rochester, New York. Preliminary information indicates that the shoal extends from LAT 43° 18.5' LON 77° 40.5' northeast to LAT 43° 18.8' LON 77° 39.5'. The shoal is approximately 0.3 NM wide with a least depth of 14 feet below chart datum found at LAT 43° 18.5' LON 77° 40.1'. This point is approximately 4.0 NM bearing 318° true from the Rochester Harbor Light. The 24 foot depth curve extends from 1.2 NM to 2.2 NM off Long Pond on chart 14805

Times Union 8-18-1920

Coal Barge Goes On Rocks; Crew Escapes In Life Boats

Attempt To Beach Boat Fails After She Develops Bad Leak

Fourteen Sailors Unsuccessfully Man Pumps for an Hour—Barge Strikes Ledge of Rock Off Willow Beach and Rests in 15 Feet of Water—Coal Will Be Salvaged—Charlotte Life Savers Called.

The crew of 14 men on the coal barge James H. Shrigley were forced to take to life boats early this morning when the boat was grounded about a mile off the Parma and Hamlin town line in Lake Ontario this morning, after a hard but unsuccessful fight against a leak in the stern hold. The barge is resting in about 15 feet of water on a ledge of rock at Willow Beach, a few miles west of the Braddock Point light station.

The James H. Shrigley was bound to Quebec with a shipment of 890 tons of coal from Sandusky, Ohio. At about 1 o'clock this morning one of the crew discovered a strong leak in the stern. Pumps were immediately put at work, but the leak proved greater than the capacity of the pumps.

Captain Albert Daubler decided to give up his attempt to reach Charlotte harbor and turned the boat toward shore. After more than an hour's fight with the leak water began to enter the engine room of the barge and with the engine forced to slow down to almost negligible speed distress signals were sent out by means of the fire whistle.

Life boats were prepared and the crew was in readiness to leave the boat at a moment's notice, when the ledge of rocks was struck at 5:30 o'clock.

By this time cottagers on the shore had heard the distress signals and a call was sent to the United States Coast Guard Station at Charlotte. A cutter made the trip through the choppy sea in less than an hour, but by the time it had reached the barge the crew had safely reached shore in the life boats. They found refuge on the Holcomb farm.

The crew was worn out by the long and hard fight at the pumps. The ship was in charge of Captain Daubler, with Asias Le Fevre as mate. The crew was composed of French-Canadians. The barge is owned by a Mr. Bernard of Montreal.

The owner was notified this morning of the beaching and arrangements are being made to salvage the coal in the barge. The barge itself is beyond repair, according to the officers, who state that it has seen service on Lake Ontario for nearly half a century. It is 80 feet in length, with a 35-foot beam.

WOULD DECIDE PRESENT STATUS OF INDIANS

State Indian Commission Stops in Rochester on Way to Tonawanda Indian Reservation in Western Part of the State.

Dr. Arthur C. Parker, state archeologist and secretary of the State Indian Commission, members of which spent last night in Rochester en route to the Tonawanda Indian Reservation where they held a hearing this afternoon, was the guest last evening of Alvin H. Dewey, president of the Lewis H. Morgan Chapter of the New York State Archaeological Society.

The commission was created in 1919 by the New York State Legislature for the purpose of enquiring into the legal status of the Indians in the state. According to recent decisions of the United States Supreme Court the Indians are wards, not of the state but of the federal government and, as such, are entitled to support and protection from federal sources. At the same time the state of New York has been paying out $150,000 every year to the Indians and has been maintaining free schools in which, under the Supreme Court decisions, it cannot enforce attendance on the part of the Indians.

The members of the commission are: Chairman E. A. Everett, assemblyman from Potsdam; Assemblyman Charles Donahue of New York; Assemblyman DeHart H. Ames of Franklinville; Dr. Robert W. Hill of the State Charities Department, Dr. Parker, Speaker Thaddeus Sweet, David Russell Hill, chief of the Onondagas; Attorney-General Charles D. Newton; Dr. Mathias Nicoll, Jr., deputy state commissioner of health; Assemblyman Peter McArdle of New York, Senator I. S. Black and Senators J. Henry Walters and James Yelverton.

The commission began its tour of the reservations last Sunday and yesterday visited the Onondaga and Oneida reservations ...

Interpreters' Examination Will Be Held

District Attorney William F. Love announced this morning that he had received a preliminary announcement from the State Civil Service Commission on the projected examination for Polish and Italian interpreters which a late statute has assigned to each county prosecutor. Joseph Favasuli and Walter Stanley were provisionally appointed to the places under the district attorney but the state examination will be open to all properly qualified applicants.

The tests will probably take place ...

Finds No Evidence Of Walnut Weevil In Parks Of Rochester

Professor Fred E. Brooks of the Bureau of Entomology of the United States Department of Agriculture, visited city parks and suburbs yesterday with John Dunbar, assistant superintendent of parks.

Professor Brooks was assigned by the Bureau of Entomology to study the boring insects of hardy nut trees of northeasttrn United States. At present he is investigating borers that attack nuts of the different walnuts. He expressed surprise to find no evidences of the presence of walnut wevils in Rochster and vicinity.

APPROVAL SHEET

For

SURVEY H-10138 (HFP-20-1-84)

The hydrographic records transmitted with this survey are complete and adequate.

No direct supervision was given by me during the field work.

The survey is complete and adequate, with no additional field work recommended.

Ronald W. Jones, LCDR, NOAA
Chief, Hydrographic Field Parties Section

NOAA FORM 76-155
(11-72)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

GEOGRAPHIC NAMES

SURVEY NUMBER

H-10138

Name on Survey	A ON CHART NO. 14805	B ON PREVIOUS SURVEY NO.	C ON U.S. QUADRANGLE MAPS	D FROM LOCAL INFORMATION	E ON LOCAL MAPS	F	G P.O. GUIDE OR MAP	H RAND MCNALLY ATLAS	K U.S. LIGHT LIST	
North Hamlin to Rochester										
Benedict Beach			x							1
Bogus Point	x		x							2
Braddock Bay	x		x							3
Braddock Heights			x							4
Brush Creek			x							5
Buck Pond	x		x							6
Cowsucker Creek			x							7
Cresent Beach			x							8
Davidson Beach			x							9
Grandview Beach			x							10
Island Cottage Beach			x							11
Lake Ontario	x		x							12
Lighthouse Beach			x							13
Long Pond	x		x							14
Manitou Beach			x							15
North Hamlin, N.Y.	x		x							16
Payne Beach			x							17
Rigney Bluff			x							18
Salmon Creek	x		x							19
Sandy Creek	x		x							20
Sandy Creek Marina			x							21
Sandy Harbor Beach			x							22
Shore Acres			x							23
Wautoma Beach			x							24
										25

NOAA FORM 76-155 SUPERSEDES C&GS 197

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE

WATER LEVEL NOTE FOR HYDROGRAPHIC SHEET

Processing Division: Atlantic Marine Center: MOA231

Hourly heights are approved for

Water Level Station Used: Rochester, New York (905-2058)

Period: June 19, 1984 through October 10, 1984

HYDROGRAPHIC SHEET: H-10138

OPR- V255-HFP-84

Locality: Lake Ontario

Plane of reference: Low Water Datum (IGLD 1955: 242.8 Feet)

Remarks:

Zoning not required, data from other gages on Lake Ontario indicates no unusual water level movement during the survey period.

for Harry A. Lippincott
Chief, Water Levels Section

NOAA FORM 77-27(H) (9-83)

U.S. DEPARTMENT OF COMMERCE

HYDROGRAPHIC SURVEY STATISTICS

REGISTRY NUMBER: H-10138

RECORDS ACCOMPANYING SURVEY: To be completed when survey is processed.

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET	1	SMOOTH OVERLAYS: POS., ARC, EXCESS	8
DESCRIPTIVE REPORT	1	FIELD SHEETS AND OTHER OVERLAYS	3

DESCRIPTION	DEPTH/POS RECORDS	HORIZ. CONT. RECORDS	SONAR-GRAMS	PRINTOUTS	ABSTRACTS/ SOURCE DOCUMENTS	
ACCORDION FILES	2					
ENVELOPES						
VOLUMES	9					
CAHIERS						
BOXES						

SHORELINE DATA

SHORELINE MAPS (List): TP-00504, 00505, 00506, 2-01065, 2-00900

PHOTOBATHYMETRIC MAPS (List):

NOTES TO THE HYDROGRAPHER (List):

SPECIAL REPORTS (List):

NAUTICAL CHARTS (List): Chart Enlargement 14804

OFFICE PROCESSING ACTIVITIES

The following statistics will be submitted with the cartographer's report on the survey

PROCESSING ACTIVITY	AMOUNTS VERIFICATION	AMOUNTS EVALUATION	AMOUNTS TOTALS
POSITIONS ON SHEET			2720
POSITIONS REVISED			
SOUNDINGS REVISED			
CONTROL STATIONS REVISED			
	TIME-HOURS VERIFICATION	TIME-HOURS EVALUATION	TIME-HOURS TOTALS
PRE-PROCESSING EXAMINATION			
VERIFICATION OF CONTROL			
VERIFICATION OF POSITIONS	179		179
VERIFICATION OF SOUNDINGS	222		222
VERIFICATION OF JUNCTIONS			
APPLICATION OF PHOTOBATHYMETRY			
SHORELINE APPLICATION/VERIFICATION			
COMPILATION OF SMOOTH SHEET	149		149
COMPARISON WITH PRIOR SURVEYS AND CHARTS		7	7
EVALUATION OF SIDE SCAN SONAR RECORDS			
EVALUATION OF WIRE DRAGS AND SWEEPS			
EVALUATION REPORT		33	33
GEOGRAPHIC NAMES			
OTHER* Digitizing			18
*USE OTHER SIDE OF FORM FOR REMARKS — TOTALS	550	40	608

Pre-processing Examination by: S. Iwamoto	Beginning Date: 5/26/86	Ending Date: 5/31/86
Verification of Field Data by: J.N. Shofner	Time (Hours): 550	Ending Date: 9/4/86
Verification Check by: J.L. Stringham, B.A. Olmstead, J.S. Green	Time (Hours): 59.5	Ending Date: 9/24/86
Evaluation and Analysis by: C.R. Davies	Time (Hours): 40	Ending Date: 9/22/86
Inspection by: D. Hill	Time (Hours): 5	Ending Date: 9/25/86

☆ U.S. GOVT. PRINTING OFFICE 1983: 764-006/6061

PACIFIC MARINE CENTER
EVALUATION REPORT
H-10138

1. INTRODUCTION

H-10138 was accomplished by Hydrographic Field Party #4 in accordance with the following project instructions:

OPR-V255-HFP-84, dated April 11, 1984
Change Number 1, dated May 21, 1984

This is a basic hydrographic survey along the southern shore of Lake Ontario between North Hamlin, and Rochester, New York. The surveyed area extends from the high water line to two and one-half nautical miles offshore; included within the area is Braddock Bay. The bottom slopes gradually offshore with a few isolated shoal areas within the 30-foot depth curve. The deepest depth in the area is approximately 174 feet northeast of North Hamlin. Numerous cultural features, piers, piles, and ramps are along the coast and in Braddock Bay. Bottom characteristics are generally sand, shells and mud.

Field reduction of soundings to low water datum was based on unverified recorded heights from the water level gage from Oak Orchard, New York. Water level correctors used for the final reduction of soundings reflect approved hourly heights from water level station Rochester, New York (905-2058).

The field sheet parameters have been revised to center the hydrography on the smooth sheet and to change the projection to polyconic. The sound velocity correctors have been revised during office processing to one-tenth foot increments as required by the Hydrographic Manual. Electronic correctors were revised to reflect daily correctors applicable to the appropriate Del Norte transponder unit. The revised data is listed in the smooth position/sounding printout.

A digital file for this survey has been generated and includes categories of information required to comply with N/CG2 Hydrographic Survey Guideline No. 23, Completion of Digital Hydrographic Surveys, September 7, 1983. Certain descriptive information, however, may not be included in the digital record due to the restrictions of the presently available cartographic codes. The user should refer to the smooth sheet for complete information.

2. CONTROL AND SHORELINE

Horizontal control and hydrographic positioning are adequately discussed in section F and G of the hydrographer's report.

Horizontal control stations used during hydrography are preliminary adjusted field positions based on the North American Datum of 1927. Applicable shoreline manuscripts are TP-00504, TP-00505, TP-00506, TP-00900, and TP-01065. These are registered Class III maps, and originate from photography dated June 1980.

The following high water features have been added to the smooth sheet in red from the field sheet without supporting positional information:

Feature	Latitude (N)	Longitude (W)
Pier ruins	43°19'16"	77°42'39"
Pier	43°18'55"	77°43'47"
Piers	43°18'51"	77°43'56"
Shoreline	43°18'49"	77°44'06"
Pier	43°18'40"	77°44'36"
Pier ruins	43°18'40"	77°44'40"
Ramp	43°18'37"	77°44'53"
Finger piers	43°18'34"	77°44'54"
Piers,bulkhead	43°18'25"	77°42'25"
Pier	43°18'29"	77°44'55"
Ramp,pier ruins	43°18'20"	77°44'54"
Ramp	43°21'00"	77°53'48"
Ramp	43°20'32"	77°53'53"
Pier ruins	43°20'35"	77°49'28"
Pier ruins	42°20'24"	77°47'25"
Pier ruins	43°15'47"	77°36'51"

3. HYDROGRAPHY

Soundings at line crossings are in good agreement. Hydrography within the limits of the sheet is adequate to:

a. Delineate the bottom configuration, determine least depths, and to draw the standard depth curves.

b. Reveal that there are no significant discrepancies or anomalies requiring further investigation.

c. Show that the survey had been properly controlled and soundings are plotted correctly.

4. CONDITION OF SURVEY

The hydrographic records and reports are adequate and conform to the requirements of the Hydrographic Manual, 4th Edition, revised through Change Three, except as noted in the Preprocessing Examination Report, dated May 31,1985.

5. JUNCTIONS

H-10138 junctions with the following surveys:

Survey	Year	Scale	Area
LS-1840	1945	1:10,000	East
LS-2081	1960	1:80,000	North
H-10110	1983-84	1:20,000	West

The junctions have been adequately effected.

LS-1840 and LS-2081 adjoin H-10138 because these surveys have been processed and submitted to Rockville for charting. Junction comparisons were made using copies. Soundings are in fair agreement. Depth curves should be adjusted to conform with those on this survey.

6. COMPARISON WITH PRIOR SURVEYS

LS-605(1875) 1:80,000
LS-614A(1875) 1:10,000
LS-615(1875) 1:10,000
LS-616(1875) 1:10,000
LS-617(1875) 1:10,000

The present survey soundings compare within 1 to 8 feet of the prior survey soundings; all soundings being shoaler on the present survey. This can be attributed primarily to the change in the sounding datum, these prior surveys being based on Mean Lake Level 1860-1875.

LS-1606(1932) 1:80,000

The present survey soundings compare within 1 to 2 feet of the prior survey soundings. These differences are attributed to the relative accuracy of the data acquisition techniques.

H-10138 is adequate to supersede the prior surveys within their common areas.

7. COMPARISON WITH CHART

Chart 14804, 21st Edition, dated May 23,1981; scale 1:80,000

Chart 18805,20th Edition, dated March 14,1981; scale 1:80,000

a. Hydrography - Most charted information originates from the prior surveys discussed in Section 6 of this report. Other soundings and charted features originate from miscellaneous sources. For more details see section L of the hydrographer's report.

The seven charted water intakes referenced in section M of the hydrographer's report were not completely investigated. They should remain as charted.

The sewer outfall charted at latitude 43°20'42"N, longitude 77° 44'12"W, was not adequately investigated to supersede the charted minimum depth of 27 feet. The charted depth of 27 feet should be retained as the minimum depth over the riser, however the location of the feature should be revised on the chart as indicated on the smooth sheet.

Shoaling was reported in 1975 at latitude 43°18'47"N, longitude 77°42'30"W. This area is near the entrance to Braddock Bay. Hydrography was run in the area and depths range from 0.5 to 4 feet at LWD. Chart according to smooth sheet.

Pre-survey review items/AWOIS items originating from miscellaneous sources are adequately discussed in section L of the hydrographer's report.

Geographic names appearing on the smooth sheet originate with this chart and the topographic manuscripts.

H-10138 is adequate to supersede charted hydrography within the common area except for the seven water intakes noted previously in this section.

The following Dangers to Navigation Reports (copies appended) have been submitted to the Coast Guard:

Originator	Date	Coast Guard District
HFP#4	June 29,1984	9th
HFP#4	Sept.25,1984	9th

No additional dangers were identified during office processing.

b. Controlling Depths - There are no controlling depths within the limits of this survey.

c. Aids to Navigation - Charted aids to navigation have been located and adequately serve their intended purpose.

Three new fixed aids to navigation were located during this survey and are recommended for charting at the following locations:

Sandy Creek Entrance Light	43°21'10.91"N	77°53'28.80"W
Sandy Creek Front Range Light	43°21'06.12"N	77°53'31.45"W
Sandy Creek Rear Range Light	43°21'04.92"N	77°53'32.31"W

8. COMPLIANCE WITH INSTRUCTIONS

H-10138 adequately complies with the project instructions noted in section 1 of this report.

9. ADDITIONAL FIELD WORK

This is an adequate basic hydrographic survey. Additional field work is recommended concerning the location and depth of the seven water intakes mentioned in section M.

Respectfully submitted,

Charles R Davies

C.R.Davies
Cartographer

This survey has been examined and it meets Charting and Geodetic Services standards and requirements for use in nautical charting. The survey is recommended for approval.

Dennis Hill
Chief, Hydrographic Section

ATTACHMENT TO DESCRIPTIVE REPORT FOR H-10138

I have reviewed the smooth sheet, accompanying data, and reports of this hydrographic survey. Except as noted in the Evaluation Report, the hydrographic survey meets or exceeds Charting and Geodetic Services (C&GS) standards, complies with instructions, and is accurately and completely represented by the smooth sheet and digital data file for use in nautical charting.

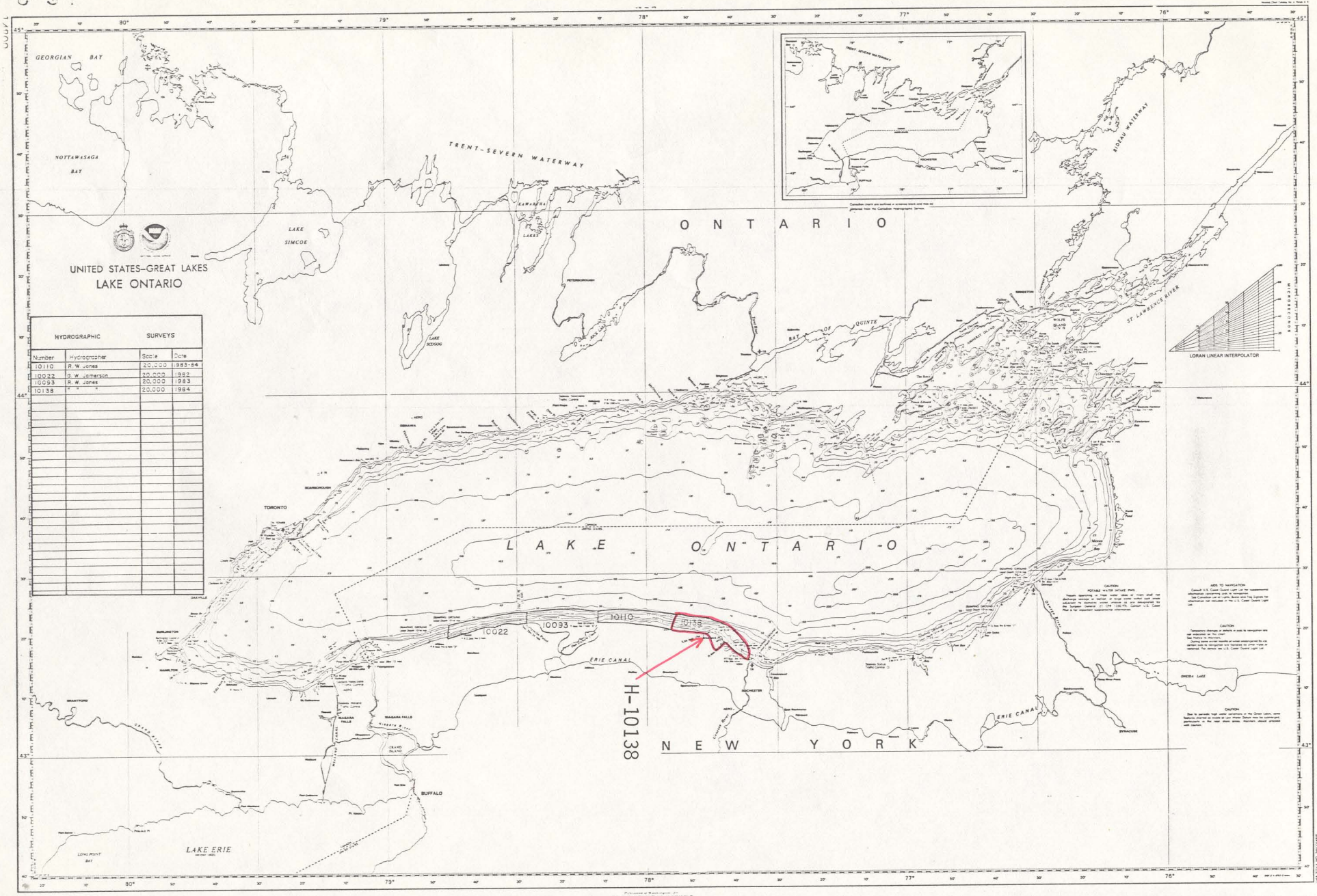
Chief, Nautical Chart Branch (Date)

CLEARANCE: SIGNATURE AND DATE:

N/MOP2:LWMordock

After review of the smooth sheet and accompanying reports, I hereby certify this survey is accurate, complete, and meets appropriate standards with only the exceptions as noted above. The above recommendations are forwarded with my concurrence.

Director, Pacific Marine Center (Date)



LS-2

DIAGRAM NO. LS-2

NOAA FORM 75-96
(10-83)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

MARINE CHART BRANCH

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-10138

INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.
1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

CHART	DATE	CARTOGRAPHER	REMARKS
14800 E}	3-3-87	Russell P Kennedy	~~Full~~ Part ~~Before~~ After Marine Center Approval Signed Via
14800 M}			Drawing No. 5 Critical Corrections only
14815	6-23-89	RA Shipley	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No. full Application of sndgs from SS
14804	7-3-89	RA Shipley	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No. full application of sndgs thru 14815 and SS
14805		PMC	Full Part Before After Marine Center Approval Signed Via
			Drawing No. 5 - 5h appld in full.
14815	3-12-90	Ed Martin	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No. 5 re apply, missing application from 77°38' West
14800	3-15-90	ALMACEN	~~Full Part~~ Before After Marine Center Approval Signed Via FULL APPLICATION OF
			Drawing No. #6 SOUNDINGS
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.

SUPERSEDES C&GS FORM 8352 WHICH MAY BE USED.