10022

Diagram No. LS-2

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. HSB-20-1-82

Office No. H-10022

LOCALITY

State New York

General Locality Lake Ontario

Locality Thirtymile Point to Olcott

1982

CHIEF OF PARTY
LCDR G.W.Jamerson

LIBRARY & ARCHIVES

DATE July 11, 1986

☆U.S. GOV. PRINTING OFFICE: 1980—766-230

Area 7
L-780(86)
CHTS:
·14806 + INSET
·14810 + INSET
·14805
·14800
·14800 M
} to sign off on Record of Application

INDEX

* FILED WITH ORIGINAL FIELD RECORDS

NOAA FORM 77-28 (11-72) U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

REGISTER NO.

HYDROGRAPHIC TITLE SHEET

H-10022

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.

HSB-20-1-82

State New York

General locality Lake Ontario

Locality Eighteenmile Creek to Thirtymile Point

Scale 1:20,000 Date of survey Jun 7 - Oct 15, 1982

Instructions dated Apr 21, 1982 Project No. OPR-V255-HSB-82

Vessel Hydrographic Surveys Branch, HFP-4

Chief of party Lt. Cdr. George W. Jamerson

Surveyed by C. B. Greenawalt, N. Perugini, E. Martin, D. M. Bryant, L. Biscorner, J. L. Daniel, J. P. Oswald, R. W. Adams, R. L. Keene, M. W. Holloway, G. Davidson

Soundings taken by echo sounder, ~~manual~~, pole DE-723D and 719B

Graphic record scaled by HFP-4 Personnel - CG,NP,EM,DB,LB,JD,JO,RA,RK,MH,GD

Graphic record checked by HFP-4 Personnel - CG,NP,EM

Protracted by N/A Automated plot by ~~Field Sheet~~ ~~PDP8/e~~ AMC-Xynetics 1200 PLOTTER

Verification by ~~AMC Verification Branch~~ R.L. KEENE

Soundings in ~~fathoms~~ feet at ~~MLW~~ ~~MLLW~~ LWD

REMARKS: Change No. 1 dated Apr 23, 1982

Survey includes a 1:5,000 scale inset of Olcott Harbor.

NOTES IN RED WERE MADE DURING OFFICE PROCESSING.

STANDARDS CHK'D 7-21-86
C.Coy

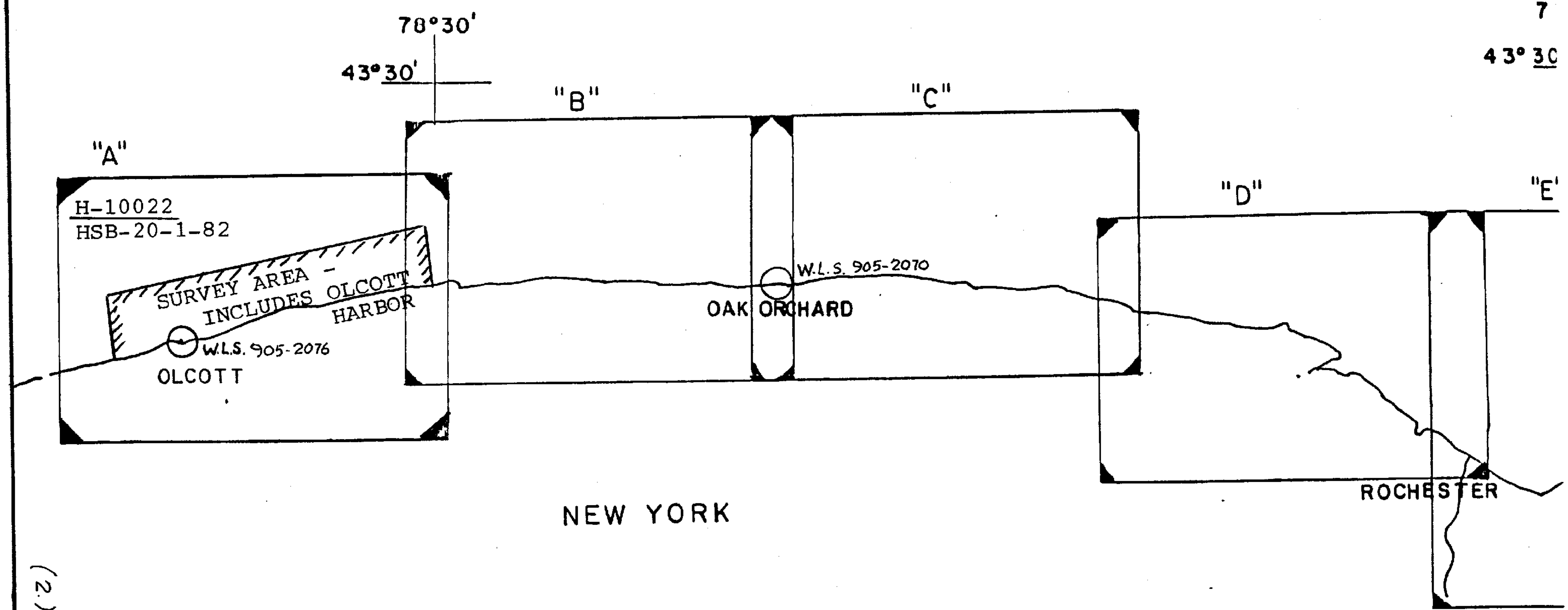
NOAA FORM 77-28 SUPERSEDES FORM C&GS-537.

(1.)

☆ U.S. GPO: 1974-0-768-081/1207

PROGRESS SKETCH
OPR-V255-HSB-82
LAKE ONTARIO
MAY- 1982
NOAA LAUNCH 1255
HFP-4
G.W. JAMERSON LCDR NOAA
COMDG
FROM CHART 14800

	may	june	july
lnm sounding line	0		
sq. n.m. sounding line	0		
lnm dist. to and from	0		
bottom samples	0		
temp. depth, cond. cast	0		
control stations	0		
water level sta. estab	0		
water level sta. lev	1		
lnm miscellaneous	0		



(2.) 04/14/83 me

DESCRIPTIVE REPORT
TO ACCOMPANY
HYDROGRAPHIC SURVEY H-10022
HSB-20-1-82

Scale: 1:20,000
Chief of Party: Lt. Cdr. George W. Jamerson
Officer in Charge: Lt. C. Brian Greenawalt
Hydrographic Surveys Branch, Hydrographic Field Party #4
Launches: 0520, 1255, 1286

A. PROJECT

This survey was accomplished under Project Instructions OPR-V255-HSB-82, dated April 21, 1982, as amended by Change No. 1 dated April 23, 1982, AND CHANGE NO. 2. DATED APRIL 26, 1985.

The purpose of this survey was to provide modern hydrography data of the inshore United States area of Lake Ontario for nautical charting.

B. AREA SURVEYED

The area surveyed was the inshore portion of Lake Ontario extending from approximately two miles west of Olcott, New York, eastward to approximately one mile east of Thirtymile Point. This survey includes the inshore area and extends offshore to the 20-fathom curve. The geographic bounds of this survey are:

North 43°22'15"N;	East 78°27'50"W
South 43°19'55'N;	West 78°46'00"W

This survey was conducted from June 9, 1982 through October 15, 1982, inclusive.

C. SOUNDING VESSEL

All soundings on this survey were collected by one of the following vessels:

NOAA Launch 0520 (EDP 0520) - 22 ft Monark
NOAA Launch 1255 (EDP 1255) - 59 ft High Speed Launch
NOAA Launch 1286 (EDP 1286) - 17 ft Monark

Launch 1255 was used in water deeper than 20 feet. Launches 0520 and 1286 were used for all areas inshore of the areas covered by Launch 1255. Launch 1286 was used exclusively on the 1:5,000 scale inset of Olcott Harbor.

Junctions between the three sounding vessels agree well. The few differences greater than one foot are attributed to the slope of the bottom.

D. SOUNDING EQUIPMENT AND CORRECTIONS TO ECHO SOUNDINGS

The following Raytheon survey fathometers were used for this survey:

VESNO	UNIT	S/N	JULIAN DAYS USED
1255	DE723 Recorder	37024	165,173,175,179,196,210,218
	DE723D ECU	2781	165
		37008	173,175,179,196,210,218
	Digitizer DDM	1907	165,173,175,179,196,210,218
1286	719B Recorder	7881	195
		6212	202,208,228,235,236,239,245, 251,252
		9221	273,274,278,281,285
0520	719B Recorder	6212	256,257
		9221	263,271,279

Pole soundings supplement the fathometer soundings in depths less than five feet. No other sounding equipment was used during this survey. HAND LEAD WAS ALSO USED.

All fathograms were scanned and checked for peaks and deeps, and the appropriate changes were made to the original records.

Calibration, zero, tide and draft, and speed of sound settings were monitored continuously. Adjustments were made either on-line or when the fathograms were scanned.

Soundings recorded with the Raytheon 719B fathometers were affected by interference from VHF-FM radio transmissions. The interference caused the initial trace to move 0.1 feet. This change in the 50-foot calibrate line was taken into consideration when the fathograms were scanned.

Raytheon fathometers (Model 719B) S/N 7881 and 6212 developed chart drive motor problems that caused the chart speed to vary erratically. These fathometers were not used after the problem developed.

On Launch 1255, ECU (Model DE723D) S/N 2781, was replaced with SN 37008 because of the marginal bottom trace on the 0-50 feet scale.

When weather and sea conditions permitted, barchecks were taken at the beginning and end of each day's hydrography. TDC casts were taken as follows:

DATE	LOCATION	
JD 160	Lat	43°22'33"N
	Lon	78°43'09"W
JD 179	Lat	43°24'27"N
	Lon	78°31'20"W
JD 187	Lat	43°23'15"N
	Lon	78°37'06"W

The velocity correctors used for this project were computed from the three TDC casts for Launch 1255, and from the barchecks for Launches 0520 and 1286.

For Launch 1255, an inherent instrument correction of 0.2 feet was found for JD 165. This correction will be applied during smooth plotting via the TC/TI tape.

Velocity correctors and TC/TI tapes were made but not used to plot the final field sheet, however both will be applied during the final smooth plotting at the Atlantic Marine Center. These tapes are included with the project data.

E. HYDROGRAPHIC SHEETS (FIELD)

Field sheets used during this survey were prepared in the field with a PDP8/e computer and a DP-3 Complot plotter. Work sheets, preliminary sheets, final field sheets, and overlay sheets are included with this survey. Mainscheme soundings and crosslines are plotted on the final field sheet. Developments, bottom samples, detached positions, charted soundings, junction soundings, prior survey soundings and aids to navigation are shown on the various overlay sheets. The final field sheet and the overlay sheets include a 1:5,000 scale inset of Olcott Harbor. A 1:2,500 scale enlargement of the harbor shoreline survey is also included.

There is a 1mm shift of the shoreline on the 1:5,000 inset of Olcott Harbor. This is due to a jog of the plotter pen after program RK201 was run and before RK216 was begun. The shoreline on the 1:5,000 mainscheme inset was traced from the range/azimuth plot on an overlay at the same scale.

All records will be forwarded to the Hydrographic Surveys Branch at the Atlantic Marine Center for verification and smooth plotting.

F. CONTROL STATIONS SEE SECTION 2.0. OF THE EVALUATION REPORT.

Control stations used during this survey were either existing geodetic control published by the National Geodetic Surveys (NGS) or control established by the Hydrographic Surveys Support Section and field party personnel. All stations meet a minimum of third-order standards. All positions are based on the North American 1927 Datum.

A list of control stations used during this survey is included in the Appendix.

See the Horizontal Control Report included with the Appendix.

G. HYDROGRAPHIC POSITION CONTROL

This survey was controlled by the Del Norte Trisponder system operated either in the automated range-range mode aboard Launch 1255 or in the non-automated, range-azimuth mode aboard Launches 1286 and 0520.

The following Del Norte equipment was used aboard Launch 1255:

UNIT	S/N	JULIAN DAY USED
DMU	298	165,173,175,179,196
	159	210,218
Master	620	165,173,175,179,196
	277	210,218
Parallel Buffer	127	165,173,175,179,196,210,218

The following remote units were used on shore to support Launch 1255:

Remote	244(76)	165,179,210,218
	248(72)	173,175,196,210,218
	1063(78)	165,173,175,179,196

The master unit aboard Launch 1255 was mounted atop a galvanized pipe mast about 6-meters above the water surface. Remote units were mounted on instrument tripods. These remote units were powered by two 12-volt marine batteries.

System checks were obtained twice daily using sextant fixes. Only those sextant fixes with less than a 5-meter inverse distance were used. For this survey, no daily correctors were applied on the corrector tape since the average daily system check corrector was less than 10 meters for each rate. The printouts from program RK516 are included with the survey records.

On JD160, a constant 200-meter discrepancy between what the Del Norte equipment received and what the Hydroplot system recorded was traced to the Hydroplot Controller. One printed circuit board was replaced before any hydrography was run.

The following Del Norte equipment was used aboard Launch 0520 or on shore in support of Launch 0520:

UNIT	S/N	JULIAN DAY USED
DMU	298	256,257,263,264,271,279,280
Master	620	256,257,263,264,271,279,280
Remote	1063	256,257,263,264,271,279,280

Launch 0520 was controlled entirely by range-azimuth methods with a Wild T-1 theodolite (S/N 14007) for the azimuth control.

The master unit aboard Launch 0520 was mounted on a galvanized pipe mast about 2.5 meters above the waterline. Remote units were mounted on Wild instrument tripods at the shore stations.

The following Del Norte equipment was used aboard Launch 1286:

UNIT	S/N	JULIAN DAYS USED
DMU	298	195,202,243,245,251,252,273, 274,278,281,285
	159	208,228,235,236,239

UNIT	S/N	JULIAN DAYS USED
Master	620	195,202,243,245,251,252,273, 274,278,281,285
	277	208,228,235,236,239
Remote	1063	195,202,243,245,251,252,273, 274,278,281,285
	244	208,228
	248	235,236,239

This equipment was used in a range-azimuth mode. One of two Wild theodolites, T-1 (S/N 14007) or T-2 (S/N 19309 on the 1:5,000 inset) was used for azimuth control.

On Launch 0520, and 1286, daily static system checks (distances measured with a HP3810B EDMI or over distances between two established control stations) were made at the start and end of hydrography, except on JD 208,239 and 271. Weather and lake conditions prevented the launches from safely conducting system checks on these days. Daily checks following the above dates indicated no problems with the equipment.

The Del Norte equipment was baseline calibrated before the survey began and after the survey was completed. The equipment was also calibrated whenever its accuracy was in question. The baseline calibrations were conducted in accordance with AMC Operations Order 79, dated February 25, 1982. The baseline distance (Station FITCH to station OLCOTT USCG 1972) had been measured to third-order standards. Results are included in the Appendix.

The electronic correctors applied on the corrector tapes are mean correctors determined by the baseline calibrations for the respective period of hydrography. These correctors are shown in the Electronic Corrector Abstract included with the Appendix.

In addition to the Del Norte control system, a HP3810B EDMI was used for controlling Launch 1286 on JD 158-161 (Olcott Harbor shoreline) and JD 280 (two detached positions). The HP3810B (S/N 1929A00405) is an invisible laser instrument and used three retro-reflector prisms. This instrument also has 20-second horizontal circle for azimuth control.

H. SHORELINE *SEE SECTION 2.6. OF THE EVALUATION REPORT.*

Shoreline details for this survey were transferred to the final field sheet from shoreline manuscripts TP-00500 and TP-00501. No shoreline manuscript other than TP-00500 was available for the 1:5,000 scale inset of Olcott Harbor. Shoreline details for the 1:5,000 scale inset were plotted from a shoreline survey performed by the Coastal Mapping Section and the Hydrographic Surveys Support Section in June 1982. These records are included with this survey. (Vol 1, positions 0001-373)

Range-azimuth hydroplot master tapes were generated from the data obtained from the Olcott shoreline survey. These tapes along with parameter tapes at scales of 1:2,500 and 1:5,000 are also included.

The charted shoreline on the Olcott inset indicates some erosion has taken place west of the entrance breakwater when compared to the

1:5,000 shoreline survey. The degree of erosion is difficult to determine due to the difference in the charted 1902 datum and the present 1927 and the possible distortion introduced by the photographic enlargement of the inset.

Field edit, performed by the Coastal Mapping Section in June 1982, is shown on the final field sheet. This field edit was supplemented by hydrographic positions taken on man-made and natural features. Changes to the shoreline manuscript are shown on the ~~final field~~ SMOOTH sheet in red.

All questions directed to the hydrographer were investigated.

I. CROSSLINES SEE SECTION 3.a. OF THE EVALUATION REPORT.

Crosslines totalled 35.2 miles, or 14% of the mainscheme soundings. Ninety-eight percent (98%) of all crossline soundings agree within one foot of the mainscheme soundings. The remainder of the crosslines agree within 2-3 feet.

J. JUNCTIONS SEE SECTION 5. OF THE EVALUATION REPORT.

This survey junctions well with the following surveys:

H-10093 (1983) 1:20,000 SCALE TO THE EAST

1. LS-2079 (1960), 1:80,000 scale to the north,
2. LS-2080 (1960), 1:80,000 scale to the north, and
3. LS-2205 (1963), 1:10,000 scale to the west.

When compared with Surveys LS-2079 and LS-2080, 76% of the junction soundings agree within two feet. The remainder of the soundings agree within five feet (4% of the depth).

When compared with Survey LS-2205, 90% of the junction soundings agree within one foot. The remainder of the soundings agree within two feet.

This survey did not agree with Survey LS-2207 (1963), 1:5,000 scale in Olcott Harbor. Olcott Harbor has been dredged several times and many shoreline changes have taken place since Survey LS-2207 was conducted. However, the current survey compared well with the July 16, 1982, 1:1,200 scale survey conducted by the Corps of Engineers. A copy of this Corps of Engineers survey is appended. SEE SECTION 6 OF THE EVALUATION REPORT.

The 6-foot shoal shown on LS-2207 at Lat 43°20'27", Lon 87°43'14.5" was not searched for specifically, however a sounding line run directly over this position indicates depths of 11 feet. The charted inset of Olcott Harbor also shows 11 foot depths at this location. CONCUR.
SEE ALSO SECTION 6 OF THE EVALUATION REPORT.

The intake crib for the Olcott Water Level Station is incorrectly positioned on LS-2207 and the charted inset of Olcott Harbor. The present survey located the crib 75-meters ~~southeast~~ WEST at Lat 43°20'27.15", Lon 78°43'42.07". The least depth over the crib was determined by diver held leadline to be 7 feet as presently charted.
CONCUR. SEE ALSO SECTION 6.3) OF THE EVALUATION REPORT.

K. COMPARISONS WITH PRIOR SURVEYS *See section 6 of the Evaluation Report.*

This survey area was covered by the following prior surveys:

LS-605 (1875)	1:60,000	LS-1605 (1932)	1:80,000
LS-622 (1875)	1:10,000	~~LS-1606 (1932)~~	~~1:80,000~~
LS-624 (1875)	1:10,000	LS-2206 (1963)	1:10,000

Survey LS-625 (1875), 1:10,000 scale, was to the west of the western limits of this survey.

The present survey was not compared in great detail to surveys LS-605, LS-622, nor LS-624. None of these surveys have either a GP grid, control stations nor landmarks common with the present survey. The general trends of the shoreline and depth curves agreed well.

L. COMPARISON WITH THE CHART *See section 7 of the Evaluation Report.*

Chart 14806, 20th Edition, July 11, 1981, scale 1:80,000, was compared to this survey and the two agree well. Of the soundings compared, 62% agree within two feet and 83% agree within five feet. The greatest discrepancy found was ten ~~foot~~ feet. These few isolated charted soundings were shoaler and may be caused by distortion in the chart enlargement used for the comparison and by the differences in the datum (NAD 1927 vs. NAD 1902).

No presurvey review items existed within the survey area.

All charted features within the survey area were investigated. The following discrepancies were found:

The DUMPING GROUND& 35 ft. REP. charted in the vicinity of Lat 43°21'45"N, Lon 78°43'15"W, was developed with 50-meter line spacing. The reported least depth was not found. Local mariners stated that spoil from past dredgings of Olcott Harbor had been dumped in this area. The spoil, consisting of silt and mud, probably never accumulated to form the reported least depth. Recommendation: Delete this dumping ground and reported least depth from the chart. *Do not concur. See section 7. a. 2) of the Evaluation Report.*

The SUBMARINE PIPELINE charted at Lat 43°20'48"N, Lon 78°41'20"W, is a sewer outfall. It's offshore end was determined to be at Lat 43°20'44.71"N, Lon 78°41'14.57"W. Recommendation: Chart the outfall at Lat 43°20'44.71"N, Lon 78°41'14.57"W. *Concur. See also section 7. a. 5) of the Evaluation Report.*

The SEWER charted at Lat 43°22'19"N, Lon 78°33'38"W was searched for but not found. Recommendation: Retain SEWER as charted. *See section 4.P. of the Evaluation Report.*

The PWI CRIB charted at Lat 43°22'12"N, Lon 78°33'24"W was searched for but not found. The pump for the water intake is inshore and east of station BARKER LSC 1972. Recommendation: Retain the PWI depth over crib, 6-ft as charted. *Concur.*

Numerous rocks, groins, and other man-made features were located during the survey. Recommendation: Chart these features as shown on the ~~final field~~ *SMOOTH* sheet. *Concur.*

Two of the three cribs charted on the Olcott inset ~~at~~ IN THE VICINITY OF Lat 43°20'22", Lon 78°43'30" were not found. The most westerly was located at Lat 43°20'21.53", Lon 78°48'32.9" (JD 281, pos 694). The cribs are charted in 2-feet of water and were searched for visually. Water clarity was good and the bottom was visible. No evidence of the cribs was found other than a number of concrete structures located immediately inshore in the vicinity. A submerged rock was located 25-meters west of the most easterly crib at Lat 43°20'21.9", Lon 78°43'28.01" (JD 281, pos 697). The rock is also shown on survey LS-2207 and not shown on Chart 14806. It is possible this rock could have been charted as a crib. Survey LS-2207 shows 2 cribs and a rock in this vicinity. A bottom chain drag was not performed for conclusive disproval, therefore, it is recommended the two easterly cribs be ~~retained~~ REVISED as submerged and the above mentioned rock be charted. SEE SECTIONS 6.4) AND 7.a.3) OF THE EVALUATION REPORT.

Keg Creek, Lat 43°21.1', Lon 78°39.2', is shown on TP-00500 as being 50 to 75 meters west of its charted position. The exact degree of difference is difficult to determine because of the two datums used and the small scale of the chart. A note from the field editor indicates there is a two meter ditch that drains the creek into Lake Ontario. This creek is not open to the lake for any type of vessel traffic as shown by a hydro shoreline run in this vicinity. CHART AS SHOWN ON THE PRESENT SURVEY

The following three items are discrepancies on the 1:10,000 scale chart inset of Olcott, New York:

The POST OFFICE, charted at Lat 43°20'16"N, Lon 78°42'48.8"W, has been moved to Lat 43°20'07.2"N, Lon 78°42'49.8"W. See chart section included in Appendix. Recommendation: Chart the POST OFFICE at its new location. CONCUR

Recommendation: Chart the FIRE HOUSE at Lat 43°20'12.5"N, Lon 78°42'52"W. See the chart section included in the Appendix. CONCUR.

The HEDLEY BOAT COMPANY has a pump-out facility. Recommendation: Chart the pump-out facility at Lat 43°20'18.7"N, Lon 78°43'06.6"W. CONCUR.

M. ADEQUACY OF SURVEY SEE ALSO SECTION 9. OF THE EVALUATION REPORT.

Hydrography on the Olcott inset could not be run upstream of the Highway 18 Bridge due to a large construction barge being moored next to the bridge making it impossible to navigate beyond this point. It is recommended the soundings from the chart be retained south of the bridge.

This survey is complete and is adequate to supersede all prior surveys for charting with the exception of the above mentioned area.

N. AIDS TO NAVIGATION SEE SECTION 7.C OF THE EVALUATION REPORT.

All fixed aids to navigation in the survey area were located. Their positions and descriptions were compared with those listed in Light List Vol IV, 1981, and as shown on Chart 14806, 20th Edition, July 11, 1982. The aids adequately serve the apparent purpose for which they were established.

The following landmarks and fixed aids were verified as adequately positioned and charted:

CHARTING NAME	DESCRIPTION	LAT/LON	(POS SOURCE) METHOD OF VER	CHARTS
TANK	Sig. 005 (Olcott Municipal Water Tank)	43°20'06.142" 78°43'06.544"	NGS T-2 cuts	14806
LIGHT *Not on Survey*	(Wilson Entrance Light) Wilson Harbor Pierhead Light 2, LL#347	43°19'10.512" 78°50'13.459"	NGS T-2 cuts	14500, 14800, 14806, 14820, 14822
LIGHT HOUSE	Sig. 023 (Thirtymile Pt.LH) (Abandoned)	43°22'29.506" 78°29'10.714"	NGS T-2 cuts	14805 14806
LIGHT	(Thirtymile Pt. Beacon) Sig. 022 Thirty Mile Point Light, LL#345	43°22'29.260" 78°29'12.760"	NGS T-2 cuts	14800, 14806 14805
LIGHT	(Olcott Entrance Light) Sig. 004 Olcott Light, LL#346	43°20'26.446" 78°43'10.917"	NGS T-2 cuts	14500, 14800, 14806, 14820

Three privately maintained lights mark the abutments of the bridge spanning Eighteenmile Creek. See position 302, 347, and 348. These lights are of no fixed aid value for vessels transiting Lake Ontario, and are of little value to vessels in Olcott Harbor. Recommendation: Do not chart these lights. *Concur*

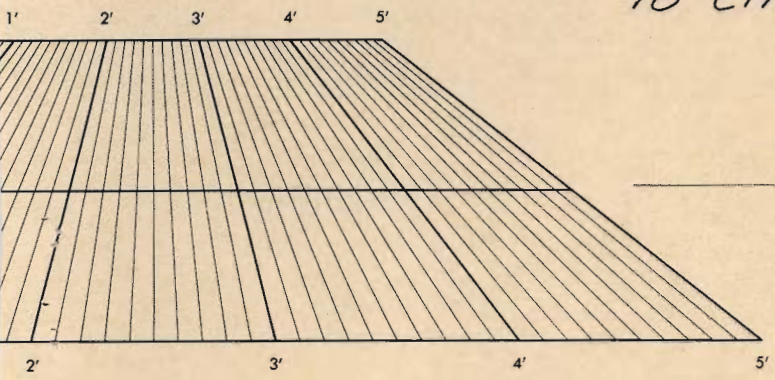
Several privately maintained temporary buoys exist near the entrance to and inside Olcott Harbor. The buoys in Lake Ontario mark a sailboat race course. These buoys are moved throughout the racing season. The buoys in Olcott Harbor mark a shoal. The buoys are seasonal and are placed at the edges of the shoal each April or May. These buoys are temporary and were moved four times during this survey. Recommendation: Do not chart the racing buoys or the shoal buoys. Instead chart a cautionary note advising of their existence. *Concur*

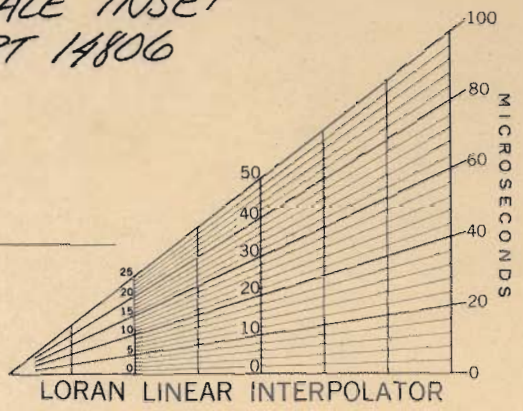
One submarine pipeline crosses Eighteenmile Creek between Lat 43°20'14.8"N, Lon 78°42'59.8"W and Lat 43°20'13.6"N, Lon 78°43'01.0"W. These positions were determined during field edit. Local sources stated that the pipeline is buried below the creek bed. Recommendation: Chart the submarine pipeline. *Concur.*

One overhead telephone cable crosses Eighteenmile Creek between Lat 43°20'14.81"N, Lon 78°42'59.51"W and Lat 43°20'13.20"N, Lon 78°43'02.16"W (See position numbers 192 and 254.). The vertical clearance was measured at 140000Z on JD 287 and found to be 55-feet above LWD. Recommendation: Chart the overhead cable and clearance as noted above. *Concur.*

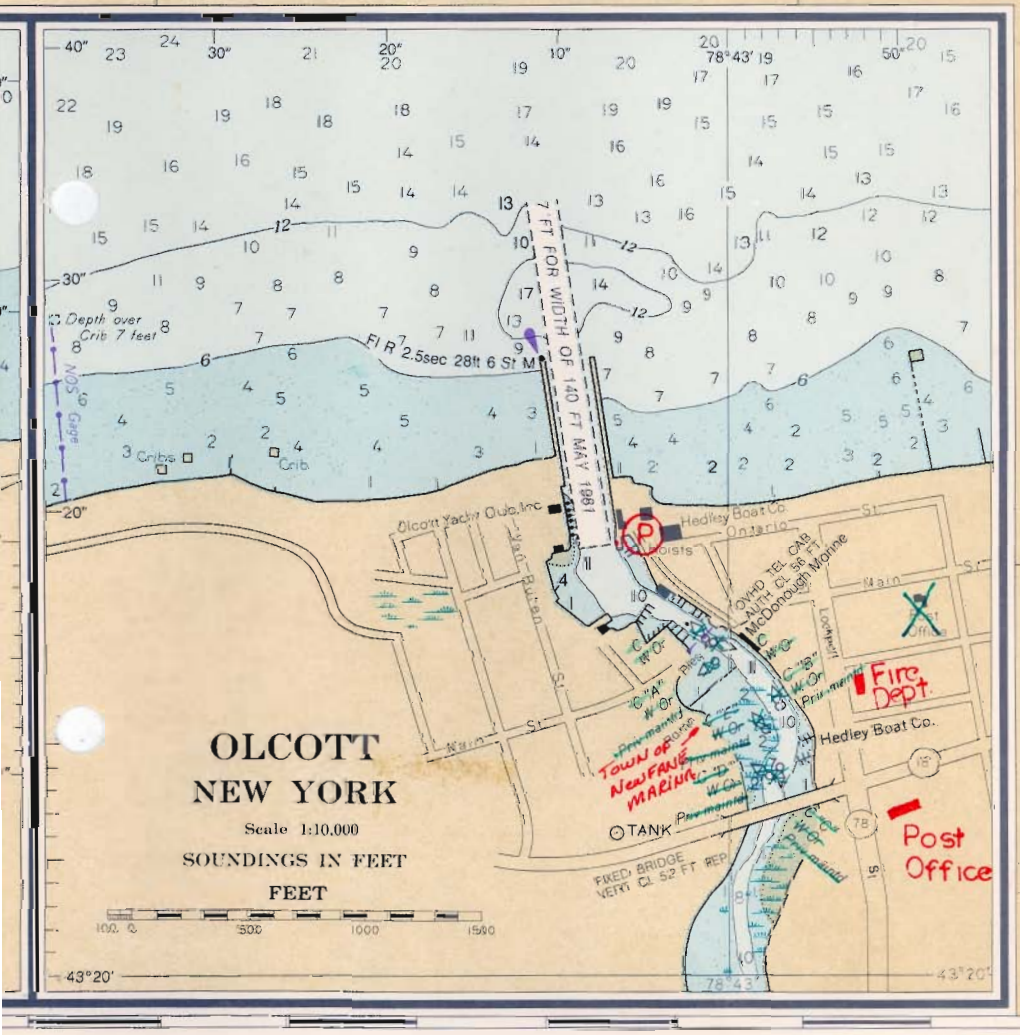
The vertical clearance of the bridge across Eighteenmile Creek at Olcott was measured at 160000Z on JD 285 and was found to be 50-feet above LWD. Recommendation: Chart the vertical clearance as 50-feet above LWD. *Concur.*

1:10000 SCALE INSET TO CHART 14806

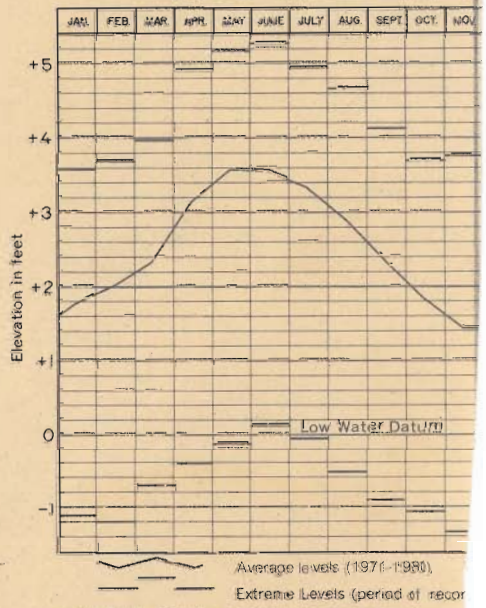




and Longitude Plotting Interpolator



LAKE ONTARIO



Low Water Datum, which is the plane of referenc levels shown on the above hydrograph, is also the reference for the charted depths. If the lake level is below Low Water Datum, the existing depths are corr ingly greater or lesser than the charted depths.

RADAR REFLECTORS

Radar reflectors have been placed on m floating aids to navigation. Individual ra reflector identification on these aids has b omitted from this chart.

POLLUTION REPORTS

Report all spills of oil and hazardous substances t Response Center via 800-424-8802 (toll free), or to the Coast Guard facility if telephone communication (33 CFR 153).

78°50' 78°45' See smooth sheet for other revisions. 78°40'

ON

FATHOMS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
FEET	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102
METERS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

(11.A)

O. STATISTICS

Total number of positions	1551
Lineal nautical miles of mainscheme hydrography	258.1
Lineal nautical miles of crosslines	35.2
Lineal nautical miles of development	19.2
Total lineal nautical miles of hydrography	312.5
Total square nautical miles of hydrography	20.4
Number of detached positions	417
Number of water level stations established	1
Number of TDC casts	3
Number of barchecks	44
Number of bottom samples*	59

*Oceanographic Log Sheet M are included in the Appendix.

P. MISCELLANEOUS

Several mariners, Coast Guard personnel, and marina operators in the Olcott and Lower Niagara River areas commented on the NOS plans to restructure the charts of Lake Ontario. Most mariners and marina operators liked the proposed format because it reduced the number of charts. Chief Petty Officer Schmidt, Officer-in-Charge, U. S. Coast Guard Station Niagara, suggested that the new 1:100,000 scale charts be extended offshore to include the vessel traffic separation zones. Such charts would greatly aid the Coast Guard Search and Rescue operations.

Heavy bottom growth appeared in water shoaler than 30-feet deep after mid-July when the water temperature increased.

Q. RECOMMENDATIONS

It is recommended that this survey supersede all prior surveys in the area except as noted in Section M.

It is recommended that the field edit shown on the manuscript be applied to the smooth sheet. DATA HAS BEEN APPLIED AND IS APPROPRIATE.

See Sections L and N for additional recommendations.

R. AUTOMATED DATA PROCESSING

The following hydroplot system programs were used during this survey:

PROGRAM	VERSION	
RK112	Range-range & Hyperbolic Real-time Hydroplot	08/04/81
RK201	Grid, Signal and Lattice Plot	05/18/76
RK211	Range-range Non-real Time Plot	01/15/76
RK212	Visual Station Table Load	04/01/74
RK216	Range-azimuth Non-real Time Plot	02/05/76
RK300	Utility Computations	02/05/76
RK330	Data Reformat and Check	05/04/76
RK530	Layer Corrections for Velocity	05/10/76
RK561	H/R Geodetic Calibration	02/19/75
AM602	Extend Line Oriented Editor	05/20/75

S. REFERENCES TO REPORTS

Horizontal Control Report dated June 29, 1982
Field Edit Report for Manuscript TP-00500 (CM8000) dated July 9, 1982
Field Edit Report for Manuscript TP-00501 (CM8000) dated July 9, 1982

Respectfully submitted,

C. Brian Greenawalt
Lt., NOAA
OIC, HFP-4

APPROVAL SHEET
SURVEY H-10022 (HSB-20-1-82)

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

No direct supervision was given by me during field work and the field sheet was examined only during routine field inspection of the hydro party by the former Chief of Party, Lt. Cdr. George W. Jamerson.

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

See also Section 9. of the Evaluation Report

Ronald W. Jones
Lt. Cdr., NOAA
Chief, Hydrographic Field Parties Section

SIGNAL TAPE LISTING

OPR V-255

HSB 20-1-82

H-10022

DVM
5-31-83

001	6	43	20	26543	078	43	11052	250	0002	000000	OLCOTT USGS 1972
002	7	43	20	25864	078	43	07910	250	0002	000000	OLCOTT COE 10 1949
003	7	43	20	18419	078	43	06296	250	0002	000000	OLCOTT COE 12 1949
004	7	43	20	26446	078	43	10917	139	0000	000000	OLCOTT ENTRANCE LIGHT (1982)
005	7	43	20	06142	078	43	06544	139	0000	000000	OLCOTT MUNICIPAL WATER TANK (1982)
006	7	43	20	20435	078	43	29174	250	0009	000000	KUHNS (1982)
007	7	43	20	24466	078	42	30245	250	0002	000000	KRULL (1982)
008	7	43	20	30955	078	41	32637	250	0012	000000	FITCH (1982)
009	7	43	20	42416	078	40	47613	250	0018	000000	BIBLE (1982)
010	7	43	20	56771	078	40	04208	250	0002	000000	WETDOCK (1982)
011	7	43	21	04178	078	39	28934	250	0002	000000	BAND BOX (1982)
012	7	43	22	28864	078	29	17860	250	0005	000000	THIRTY 1972
013	7	43	21	26905	078	38	07872	250	0010	000000	ST MARY USGS 1972
014	7	43	21	58200	078	34	14484	250	0003	000000	COLE (1982)
015	7	43	22	05109	078	33	38186	250	0002	000000	KENAN (1982)
016	7	43	22	09835	078	32	48995	139	0002	000000	DON (1982)
017	7	43	22	16666	078	31	55223	250	0002	000000	RUSIN (1982)
018	7	43	22	20057	078	31	11203	250	0004	000000	WITTLINGER (1982)
019	7	43	22	18761	078	30	37044	139	0002	000000	HAIGHT (1982)
020	7	43	22	24889	078	29	50493	139	0002	000000	ROD (1982)
021	7	43	22	28977	078	29	13237	139	0000	000000	SOMERSET USCG RAD MAST (1982)
0											

SIGNAL TAPE LISTING CONTINUED

✓	022	7	43	22	29260	073	29	12760	139 0000 000000	THIRTY MILE PT BEACON (1982)
✓	023	7	43	22	29506	073	29	12714	139 0000 000000	THIRTY MILE PT LH (1982)
✓	024	7	43	19	44011	073	40	46516	139 0000 000000	OLCOTT MICROWAVE TR (1982)
✓	025	7	43	20	59885	073	36	04769	139 0000 000000	SOMERSET MET TOWER (1982)
✓	026	7	43	21	22825	073	36	13783	139 0000 000000	SOMERSET PWR PLANT STACK (1982)
✓	028	7	43	22	06230	073	33	22333	250 0002 000000	BARKER LSC 1972
✓	030	3	43	20	07128	073	42	56953	250 0019 000000	BRIDGE PK NORTH (1982)
✓	031	7	43	20	06693	073	42	56639	139 0019 000000	BRIDGE PK SOUTH (1982)
✓	032	3	43	20	28574	073	42	59787	250 0004 000000	PK RAMP (1982)
✓	033	7	43	22	30735	073	29	12822	250 0002 000000	GOLDEN (1982)
✓	034	7	43	22	16360	073	27	57248	250 0006 000000	LEWIS (1982)
✓	035	7	43	22	16143	073	28	00007	250 0002 000000	OSWALD (1982)
✓	036	7	43	20	13706	073	42	56994	250 0003 000000	TEMP 1 (1982)
✓	038	5	43	21	58212	073	34	14803	250 0003 000000	COLE ECC W (1982)
✓	130	7	43	19	59531	073	45	23919	250 0011 000000	BEEBE (1982)
✓	131	7	43	20	08058	073	44	38471	250 0014 000000	HARRIS (1982)

DUM 5-31-83

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	Lake Ontario Olcott to Thirty Mile Pt	Oct 82

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	HSB-20-1-82	H-10022	North American 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	LONGITUDE ° ′	LONGITUDE ″ D.P.Meters	METHOD AND DATE OF LOCATION (See instructions on reverse side): OFFICE	FIELD	CHARTS AFFECTED
STACK	(Somerset Pwr Plant Stack)	43 21	22.825	78 36	13.783		F-3-6-L May 1982	14800 14806
TANK	OLCOTT MUNICIPAL WATER TANK	43 20	06.142	78 43	06.544		F-3-6-L MAY 1982	

96. NC L-413(83), L-267(85)

RESPONSIBLE PERSONNEL		
TYPE OF ACTION	**NAME**	**ORIGINATOR**
OBJECTS INSPECTED FROM SEAWARD	Lt. C. Brian Greenawalt	☐ PHOTO FIELD PARTY ☒ HYDROGRAPHIC PARTY ☐ GEODETIC PARTY ☐ OTHER *(Specify)*
POSITIONS DETERMINED AND/OR VERIFIED	Lt. C. Brian Greenawalt	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.

NOAA FORM 76-40
(8-74)

Replaces C&GS Form 567.

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

[redacted] 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)	STATE	LOCALITY	DATE
	HFP-4	New York	Lake Ontario Olcott to Thirty Mile Pt	Oct 82

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	HSB-20-1-82	H-10022	North American 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
MICRO TWR	(Olcott Microwave Tr) 1982	43 19	44.011	78 40	46.516		F-3-6-L May 1982	14806
	Presently charted as Radio Tower - 3 vert Lts.							

(98)084-7 '26

RESPONSIBLE PERSONNEL		
TYPE OF ACTION	**NAME**	**ORIGINATOR**
OBJECTS INSPECTED FROM SEAWARD		☐ PHOTO FIELD PARTY ☐ HYDROGRAPHIC PARTY ☐ GEODETIC PARTY ☐ OTHER *(Specify)*
POSITIONS DETERMINED AND/OR VERIFIED		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

[redacted] 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 [ ] TO BE REVISED [XX] TO BE DELETED	REPORTING UNIT (Field Party, Ship or Office)	STATE	LOCALITY	DATE
	HFP-4	New York	Olcott Hbr to Thirty Mile Pt.	Oct 82

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	HSB-20-1-82	H-10022	North American 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	(Somerset Met Tower) 2 Vert Lts Occ RFR Insignificant when compared with Somerset Pwr Plant Stack	43 20	59.885	78 36	04.769		F-3-6-L No landmark value	14806
SILOS	No landmark value Not seen from Lake	43 21	32	78 35	24		Not observed	14806
WINDMILL	Windmill No landmark value	43 22		78 35			No landmark value	14806

(96) 760-7

RESPONSIBLE PERSONNEL		
TYPE OF ACTION	**NAME**	**ORIGINATOR**
OBJECTS INSPECTED FROM SEAWARD	Lt. C. Brian Greenawalt	☐ PHOTO FIELD PARTY ☒ HYDROGRAPHIC PARTY ☐ GEODETIC PARTY ☐ OTHER *(Specify)*
POSITIONS DETERMINED AND/OR VERIFIED		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.

Form Approved. OMB No. 41-R2455

NOAA FORM 77-6
(10-72)

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

COAST PILOT REPORT

PLEASE MAIL TO:

Director
National Ocean Survey
National Oceanic and Atmospheric Administration
ATTENTION: C324
Rockville, Maryland 20852

This record of your experience and observations when coasting, entering port, and/or following inside channels will be used to correct, amplify, or confirm the description now given in the Coast Pilot.

Please use additional sheets if more space is needed.

Additional report forms will be provided upon receipt of each report.

GEOGRAPHIC LOCATION
LAKE ONTARIO, NEW YORK: THIRTY MILE POINT TO OLCOTT, NEW YORK

LATITUDE	LONGITUDE	CHART NUMBER	COAST PILOT NUMBER
		14806	6

VESSEL	MASTER/COMMANDING OFFICER
HYDROGRAPHIC FIELD PARTY 4	G.W. JAMIERSON, CHIEF, HSB
DATE OF OBSERVATION	**OBSERVER**
JUNE-OCTOBER 1982	C.B. GREENAWALT, OIC, HEP-4

I. LANDMARKS: Mention those visible from seaward and useful for navigation (day and/or night); include natural ranges and indicate the pair of marks forming a range. Photographs of landmarks difficult to describe are solicited; each view should be labeled with the distance off and the direction towards which the camera was pointed.

TYPE	CHARTED YES	CHARTED NO	LATITUDE ~~(Approximate)~~	LONGITUDE ~~(Approximate)~~	DESCRIPTIVE INFORMATION HELPFUL IN IDENTIFICATION
STACK		✓	43°21'22.625"	78°36'13.783"	PHOTOGRAPH INCLUDED. LOCATED BY THIRD-ORDER INTERSECTION METHODS
					NGS DATA BASE NAME: SOMERSET PWR PLANT STACK

II. RADAR: List best radar targets and, if known, give maximum useful radar range at which the object can be positively identified and used. Mention under remarks places you have observed radar returns to be misleading.

NAME OR TYPE OF FEATURE *(Include approximate latitude and longitude if necessary to identify on chart)*	MAXIMUM USEFUL RANGE

III. ROUTES: Where entrance and inside routes are not marked by aids to navigation, show recommended directions for Coast Pilot (latitude and longitude of entrance point, and distances and true courses made good); include natural steering ranges if available.

USCOMM-DC 4694-P73

IV. DANGERS: Mention those of concern to the navigator where special caution should be indicated in the Coast Pilot.

V. CURRENTS: Indicate places you have experienced conditions of current where special caution should be mentioned in the Coast Pilot.

VI. ANCHORAGES: Mention best anchorage in the area and other secure anchorages having good holding ground.

LOCATION *(Include anchorage bearings and natural ranges if available)*

TYPE OF BOTTOM OBSERVED:

	EXCEL	GOOD	FAIR	POOR	COMMENT
HOLDING QUALITY					
PROTECTION OFFERED					
ACCESSIBILITY					

RECOMMENDED FOR VESSELS:

LENGTH	DRAFT
____ TO ____ FT.	____ TO ____ FT.

VII. REMARKS:

VIII. OTHER COAST PILOT CHANGES

U.S. COAST PILOT

NUMBER	EDITION	PAGE	LINE(S)
6	APRIL 1982	126	

NOTE: Any chart(s) submitted with your report to show conditions will be replaced free of charge.

READ: STRIKE OUT: INSERT AFTER: *(Circle one)* OF 35 FEET

STRIKE OUT: 26/28 R [DUMPING GROUND: LEAST DEPTH DOES NOT EXIST]

READ: 31R ... In August 1982, ...

READ: 39/40R 55 feet and a fixed highway bridge with a clearance of 50 feet cross ...

NOAA FORM 77-6 (10-72)

USCOMM-DC 4694-P72

Atlantic Marine Center
439 West York Street
Norfolk, VA 23510

May 4, 1983 N/MOA232:CDM

TO: Commanding Officer
Ninth Coast Guard District
Federal Office Building
1240 East 9th Street
Cleveland, OH 44199

FROM: Karl Wm. Kieninger, CDR, NOAA
Chief, Hydrographic Surveys Branch, N/MOA23

SUBJECT: Local Notice to Mariners

An uncharted dangerous submerged obstruction, covered 3 feet at Low Water Datum, was located in Latitude 43°20'13.52"N, Longitude 78°43'00.93"W, at Olcott Harbor, New York, by NOS Survey H-10022.

This information is shown on the attached copy of the Olcott Harbor inset from NOS Chart 14806.

For any additional information, please call FTS 827-6319.

Attachment (1)

cc: N/MOA233
N/CG222

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: Olcott, N.Y. (905-2076)

Period: June 7, 1982 through October 14, 1982

HYDROGRAPHIC SHEET: H-10022

OPR-V255-HSB-82

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 indicate no unusual water level movement during the survey period.

Philip C. Marks

Chief, Water Levels Section

NOAA FORM 76-155
(11-72)

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

GEOGRAPHIC NAMES

SURVEY NUMBER

H-10022

Name on Survey	A NOS 14806 TP00439-00500 CHART NO.	B ON PREVIOUS SURVEY NO.	C ON U.S. QUADRANGLE MAPS	D FROM LOCAL INFORMATION	E ON LOCAL MAPS	F P.O. GUIDE OR MAP	G RAND MCNALLY ATLAS	H U.S. LIGHT LIST	K	
EIGHTEENMILE CREEK	X									1
FISH CREEK	X									2
GOLDEN HILL CREEK	X									3
										4
HOPKINS CREEK	X									5
KEG CREEK	X									6
LAKE ONTARIO	X									7
OLCOTT	X									8
NEW YORK (title)										9
THIRTYMILE POINT	X									10
										11
										12
										13
										14
										15
										16
										17
					Approved:					18
										19
					Charles S. Harrington					20
					Chief Geographer - N/CG2x5					21
					DEC 11 1985					22
										23
										24
										25

NOAA FORM 76-155 SUPERSEDES C&GS 197

HYDROGRAPHIC SURVEY STATISTICS
REGISTRY NO.: H-10022

Number of positions	2041
Number of soundings	8526
Number of control stations	16

	TIME-HOURS	DATE COMPLETED
Preprocessing Examination	30	05/08/83
Verification of Field Data	736	03/08/85
Quality Control Checks	123	
Evaluation and Analysis	71	01/17/86
Final Inspection	18	01/15/86
TOTAL TIME	978	

Marine Center Approval 01/24/86

Transmittal letter of survey and survey records will be included in the Descriptive Report to identify the records accompanying the survey.

ATLANTIC MARINE CENTER
EVALUATION REPORT

SURVEY NO.: H-10022 FIELD NO.: HSB-20-1-82

New York, Lake Ontario, Thirtymile Point to Olcott

SURVEYED: June 7 through October 15, 1985

SCALE: 1:20,000 PROJECT NO.: OPR-V255-HSB-82

SOUNDINGS: RAYTHEON DE-723D, 719B Fathometers, Sounding Pole and Hand Lead

CONTROL: DEL NORTE (Range/Range), DEL NORTE and WILD T-1, T-2 Theodolites (Range/Azimuth), HP-3810B EDMI (Range/Azimuth)

Chief of Party.....G. W. Jamerson

Surveyed by.....C. B. Greenawalt
.....N. Perugini
.....E. Martin
.....D. M. Bryant
.....L. Biscorner
.....J. L. Daniel
.....J. P. Oswald
.....R. W. Adams
.....R. L. Keene
.....M. W. Holloway
.....G. Davidson

Automated Plot by.....XYNETICS 1201 Plotter (AMC)

1. INTRODUCTION

a. No unusual problems were encountered during verification.

b. Notes in the Descriptive Report were made in red during office processing.

c. Olcott Harbor is shown as a 1:5,000 scale inset on the smooth sheet.

d. The digital records for this survey contain multiple header records identifying two digital files for the main sheet and inset number one.

2. CONTROL AND SHORELINE

a. The control is adequately discussed in sections F., G., and S. of the Descriptive Report.

b. The shoreline for the 1:20,000 scale portion of the present survey originates with 1:20,000 scale class III final reviewed photogrammetric shoreline manuscripts TP-00499, TP-00500 and TP-00501 of 1982. The entrance to Hopkins Creek in Latitude 43°20'04"N, Longitude 78°44'50"W was revised during office processing using NOS aerial photograph number 6904 and is shown in red on the present survey. Data from field edit notes on shoreline maps labeled "HYDRO MAINTENANCE PRINT" were incorporated into the smooth sheet as appropriate.

Shoreline in the 1:5,000 scale inset of Olcott, New York originates with the hydrographer and is shown in red on the present survey.

3. HYDROGRAPHY

a. Soundings at crossings agree within the criteria stated in sections 4.6.1. and 6.3.4.3. of the HYDROGRAPHIC MANUAL and section 6.6. of the Project Instructions.

b. The standard depth curves and the charted twenty-four (24) foot supplemental depth curve were drawn in their entirety. The zero (0) curve could not be drawn due to vessel safety. Dashed curves were added to better show bottom topography.

c. Development of bottom configuration and determination of least depths is considered well done with the following exceptions:

1) A line of hydrography parallel to the shore west of Olcott to the western limits of hydrography would have been desirable.

2) Additional development in the vicinity of the 12-foot curve north of the Olcott Harbor entrance would have been desirable to verify or disprove depths on a 1982 U. S. Army Corps of Engineers survey (Drawing No. 82S-OLC-1/1). Those depths were one (1) to two (2) feet shoaler than present survey depths and shoaler than the channel project depth by up to three (3) feet. See also section 6. of this report.

3) Line spacing in the approach to Olcott Harbor Channel should have been reduced from the standard spacing of 50 meters at 1:5,000 scale to 25 meters.

4. CONDITION OF SURVEY

The smooth sheet and accompanying overlays, hydrographic records and reports are adequate and conform to the requirements of the HYDROGRAPHIC MANUAL with the following exceptions:

a. The use of the HP3810B EDMI to control the shoreline in Olcott Harbor appears to be well carried out in concept and execution.

b. Descriptive notes entered in the sounding logs by the hydrographer were very clear and helpful during office processing of the present survey smooth sheet.

c. The survey was not submitted to Atlantic Marine Center in the prescribed time interval of six (6) weeks after termination of field operations as required in section 6.13. of the Project Instructions. The survey was received twenty-six (26) weeks late.

d. A negative report on dangers to navigation was not included in the Descriptive Report as required by section 6.12. of the Project Instructions. A danger to navigation was discovered during the course of this survey. A notice to mariners was generated and forwarded to the appropriate offices during office processing. A copy of the notice is included in the Descriptive Report.

e. The extent of the foul area from seaward to the shoreline in the vicinity of Latitude 43°20'42"N, Longitude 78°40'53"W, mentioned in the Sounding Log (Vol. 6, page 68), should have been shown by the hydrographer as a dashed limit line on the final smooth field sheet.

f. The hydrographer's search for the charted sewer outfall in the vicinity of Latitude 43°22'19"N, Longitude 78°33'38"W was inadequate because only a single line of mainscheme hydrography falls within the area of the sewer outfall.

g. The comparison with the chart was also deficient as the hydrographer failed to recognize that the ten (10) foot obstruction located by the hydrographer in Latitude 43°22'16.5"N, Longitude 78°33'38.1"W and the sewer outfall are probably one and the same. It is recommended that the charted sewer outfall be retained as charted.

h. Shoreline manuscript TP-00499 was not listed as a source for the small section of shoreline west of Hopkins Creek.

i. The offshore end in ruin of the pier in Latitude 43°20'19"N, Latitude 78°43'44"W was discussed but not located by the hydrographer.

j. The hydrographer should have made a comparison with all prior surveys in the common area. The reason being that all charts in the Great Lakes are a compilation of all prior surveys. The Lake Survey Center nautical charting did not supersede earlier prior surveys by later surveys.

k. The hydrographer did not verify or disprove a charted pier with the offshore end in ruins inside Olcott Harbor in the vicinity of Latitude 43°20'13.0"N, Longitude 78°43'00.0"W. See section 6.2) of this report

5. JUNCTIONS

H-10093 (1983) to the east

An excellent junction was effected between the present survey and H-10093 (1983).

There are no contemporary surveys to the north or west of the present survey. The charted depths and the present survey depths are in harmony to the north and west.

6. COMPARISON WITH PRIOR SURVEYS

LS-605 (1875) 1:60,000
LS-606 (1875) 1:60,000
LS-622 (1875) 1:10,000
LS-623 (1875) 1:10,000
LS-624 (1875) 1:10,000
LS-1605 (1932) 1:80,000
LS-2079 (1960) 1:80,000
LS-2080 (1960) 1:80,000
LS-2205 (1963) 1:10,000
LS-2206 (1963) 1:10,000
LS-2207 (1963) 1:5,000
U.S.C.O.E. (1982) 1:1200 (Drawing No. 82S-OLC-1/1)

These surveys taken together cover the present survey area in its entirety.

Since prior surveys of 1875 do not have a grid, a meaningful comparison could not be made with the present survey. These prior surveys should serve only as historical documents of the area.

The differences on prior surveys LS-604 (1875) and LS-606 (1875) are attributable to survey methods and differences in the vertical datum between the prior and present survey.

The differences on prior surveys LS-622 (1875), LS-623 (1875) and LS-624 (1875) are attributable to sounding and control methods between present and prior surveys and in differences in the vertical datum. On LS-624 significant cultural changes occurred in the vicinity of Olcott Harbor.

Line spacing on LS-1605 (1932) is approximately 320 to 560 meters in the area of the present survey. Differences are attributable to the sparse data and differences in control methods used.

Prior surveys LS-2079 (1960) and LS-2080 (1960) cover the northern offshore edge of the present survey. Soundings from LS-2079 north of Olcott Harbor are one (1) to ten (10) feet deeper than the present survey. The remainder of the soundings between the two prior surveys compare well with the present survey with soundings agreeing within one (1) foot. Scattered soundings are four (4) to six (6) feet deeper than the present survey. These differences are attributable to survey control methods.

LS-2207 is a large scale survey of Olcott Harbor. Soundings and features outside Olcott Harbor within the charted limits of the inset are from LS-2206 (1963) and will be referenced to LS-2207 (1963). A crib not considered disproved was brought forward to supplement the present survey. The following should be noted:

1) Soundings inside Olcott Harbor are in poor agreement with the present survey because the harbor has been dredged since LS-2207 was conducted. The present survey compares well with the prior survey outside Olcott Harbor with soundings ranging one (1) to two (2) feet deeper than the prior survey. Shoreline to the west of the entrance of the harbor has receded approximately twenty-five (25) meters with a build up of shoreline at the base of the jetties on the east and west sides.

2) The pier shown on the prior survey in the vicinity of Latitude 43°20'12.0"N, Longitude 78°43'01.5"W is now presently charted as a pier with the end in ruins. A telephone conversation with Mr. Rod Hedley of Hedley Boat Company in Olcott, New York [tel. (716) 778-7048] confirmed that the pier ruins were removed about eight years ago when the Town Municipal Marina was built. Based on this information, it is recommended that the charted pier be removed from the chart.

3) The submerged crib for the Olcott Water Level Station in Latitude 43°20'28"N, Longitude 78°43'39"W on the prior survey is adequately discussed in section L. of the hydrographer's report. It is recommended that the submerged crib be charted in the position shown on the present survey.

4) The rock shown on the prior survey in Latitude 43°20'22"N, Longitude 78°43'28"W was located by the hydrographer in Latitude 43°20'21.89"N, Longitude 78°43'28.01"W. This rock is not shown on present charts. It is recommended that the rock be charted in the position shown on the present survey.

Prior surveys LS-2205 (1963)and LS-2206 (1963) compare well with the present survey. Soundings inside the thirty (30) foot curve show a trend of one (1) to three (3) feet shoaler than the present survey and soundings offshore from the thirty (30) foot curve show a general trend of one (1) to two (2) feet

deeper than the present survey. The six (6) foot shoal depth on LS-2206 in Latitude 43°20'27/2"N, Longitude 78°43'14.5"W is not charted. The six (6) foot depth is in depths of ten (10) to eleven (11) feet on the present survey. It is recommended that the chart compiler should investigate why this sounding is not presently charted. If the sounding is valid it should be charted. Several rocky bottom characteristics have been brought forward to supplement the present survey.

The present survey compared well with a 1982 U. S. Army Corps of Engineers survey (Drawing No. 82S-OLC-1/1) with soundings varying plus or minus (+/-) one (1) to two (2) feet. In the vicinity of Latitude 43°20'19"N, Longitude 78°42'58"W the present survey shows a twelve (12) foot channel on the west side of the shoal area. This was confirmed during a telephone conversation with Mr. Rod Hedley of Hedley Boat Company that there is now a channel on the east and west side of the shoal area. In the vicinity of Latitude 43°20'32"N, Longitude 78°43'15"W north of the entrance jetties, shoaler depths were found than on the present survey. It is recommended that the C of E survey be used to supplement the present survey in this area for charting purposes.

Except as noted above the present survey is considered adequate to supersede the prior surveys in the common area.

7. COMPARISON WITH CHART NO. 14806 (20th Ed., July 11/81)

a. Hydrography

The charted hydrography originates with the previously discussed prior surveys which need no further consideration and miscellaneous sources. Specific features discussed in section L., pages 9 and 10 of the Descriptive Report have charting recommendations that require no additional comments except as noted in that report.

In addition to the recommendations in section L. of the hydrographer's report the following should be noted:

1) Numerous cultural and natural features were located by the hydrographer during the survey. It is recommended that these features be charted as shown on the present survey providing the scale of the chart allows.

2) Development of the charted Dumping Ground in the vicinity of Latitude 43°21'45"N, Longitude 78°43'15"W by the hydrographer shows no indication of the reported 35 foot depth. The shoalest depth found was 71 feet. It is recommended that the Dumping Ground limits be retained and the 35 feet Rep. be deleted also the charted soundings should be revised to reflect the present survey.

3) Two (2) of the three (3)charted cribs in the inset of Olcott Harbor were searched for by the hydrographer with negative results. The charted crib in Latitude 43°20'22.5"N, Longitude 78°43'31.5"W was brought forward from prior survey LS-2207 (1963) to supplement the present survey and it is recommended that it be revised as a submerged crib as shown on the present survey. It is recommended the charted crib in Latitude 43°20'22.6"N, Longitude 78°43'26.5"W be revised as a submerged crib.

The most westerly charted crib was located by the hydrographer in Latitude 43°20'21.5"N, Longitude 78°43'32.9". It is recommended that the crib be revised to a submerged crib as shown on the present survey.

4) Hydrography inside of Olcott Harbor is only of reconnaissance value. The U. S. Army Corps of Engineers survey (Drawing No. 82S-OLC-1/1) should be used to chart the area with the present survey supplementing the C of E survey data.

5) The hydrographer located a temporary buoy marking the offshore end of a charted sewer outfall in Latitude 43°20'44.71"N, Longitude 78°41'14.57"W and is shown on the present survey. It is recommended that the charting action for this buoy be deferred to the chart compiler.

6) The obstruction, PA charted in Latitude 43°20'13.5"N, Longitude 78°43'00.8"W originating with an unknown source was located by the present survey in Latitude 43°20'13.6"N, Longitude 78°43'00.9"W with a least depth of three (3) feet. It is recommended that the charted obstruction,PA be deleted and the 3 obstr located by the present survey be charted.

7) The two (2) charted piles in the vicinity of Latitude 43°20'14.2"N, Longitude 78°43'01.2"W and the charted pile in Latitude 43°20'15.0"N, Longitude 78°43'01.2"W were neither located or discussed by the hydrographer. It is recommended that these piles be retained on the chart.

The present survey is adequate to supersede the charted hydrography except as noted above.

b. Controlling Depths

There were no conflicts with the charted channel controlling depths.

c. Aids to Navigation

There are two (2) fixed and one (1) floating aids to navigation on the present survey. These aids appear adequate to serve their intended purpose.

There are seven (7) temporary floating aids to navigation charted inside Olcott Harbor. The hydrographer states these buoys were moved four times during the time of the survey.

8. COMPLIANCE WITH INSTRUCTIONS

This survey adequately complies with the Project Instructions except as noted elsewhere in this report.

9. ADDITIONAL FIELD WORK

This is a good basic survey. The hydrographer states in section M. of the Descriptive Report that it was impossible to continue hydrography to the limits of the charted inset due to construction at the bridge over Eighteen Mile Creek. It is recommended that hydrography be completed at a time that is convenient for the hydrographer.

Reginald L. Keene
Cartographic Technician
Verification of Field Data

Richard H. Whitfield
Cartographic Technician
Evaluation and Analysis

Robert R. Hill
Senior Cartographic Technician
Verification Check

Inspection Report
H-10022

The completed survey has been inspected with regard to survey coverage, delineation of depth curves, development of critical depths, cartographic symbolization, and verification or disproval of charted data. The digital data have been completed and all revisions and additions made to the smooth sheet during survey processing have been entered in the magnetic tape record for this survey. Final control, position, and sounding printouts of the survey have been made. The survey complies with National Ocean Service requirements except as noted in the Evaluation Report. The survey records comply with NOS requirements except where noted in the Evaluation Report.

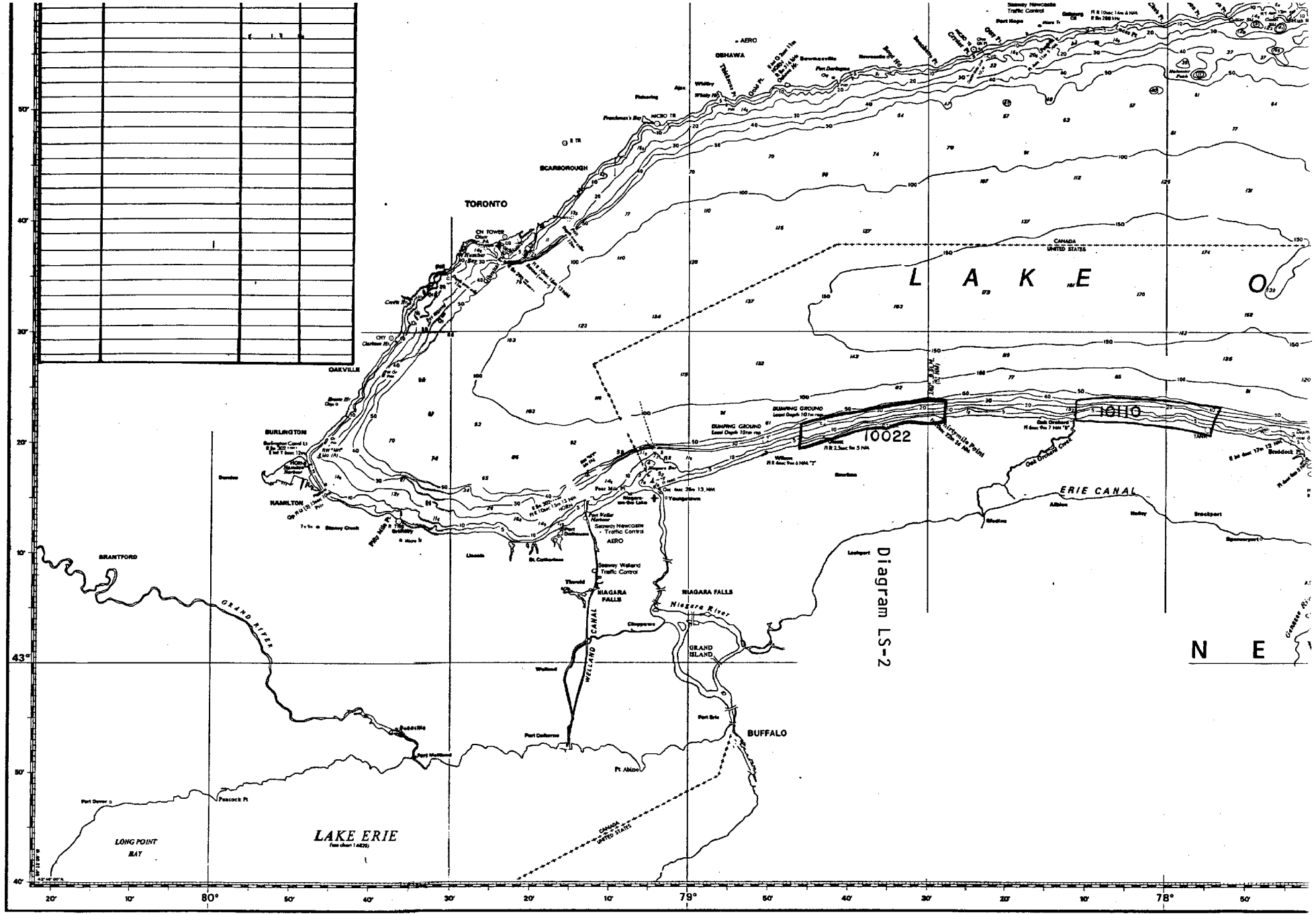
Inspected

R. D. Sanocki
Chief, Hydrographic Surveys
Processing Section
Hydrographic Surveys Branch

David B. MacFarland, Jr., CDR, NOAA
Chief, Hydrographic Surveys Branch

Approved: 21 January 1986

Wesley V. Hull, RADM, NOAA
Director, Atlantic Marine Center



Published at Washington, D.C.
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE

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-10022

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
14806	3-11-88	Dennis Mealinder	Full Part Before After Marine Center Approval Signed Via
			Drawing No. 5 app'd in full.
14805	10-4-89	[illegible]	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No. full appl. of sndgs
14800	10-16-89	[illegible]	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No. full application of sndgs from ss.
14810	8-19-92	C James	Full Part Before After Marine Center Approval Signed Via
			Drawing No. 2 app'd in full.
			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
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			Full Part Before After Marine Center Approval Signed Via
			Drawing No.

SUPERSEDES C&GS FORM 8352 WHICH MAY BE USED.