9689

Diag. Cht. LS-3

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT

(HYDROGRAPHIC)

Type of Survey HYDROGRAPHIC

Field No. HSB- 10-2-77

Office No. H-9689

LOCALITY

State MICHIGAN

General Locality DETROIT

Locality DUMPING GROUND OF LAKE ST. CLAIR

19 77

CHIEF OF PARTY
W.R. Daniels

LIBRARY & ARCHIVES

DATE December 20, 1977

9689

Area 7

[illegible]
14850
14853 [illegible] 1736

☆ U.S. GOV. PRINTING OFFICE: 1976—669-441

NOAA FORM 77-28 (11-72)

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

REGISTER NO.

HYDROGRAPHIC TITLE SHEET

H-9689

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-10-2-77

State Michigan

General locality Detroit

Locality Dumping Ground of Lake St. Clair

Scale 1:10,000 Date of survey 4/26/77 - 4/30/77

Instructions dated Feb. 2, 1977 Project No. OPR-301-HFP-77

Vessel NOAA Launch 1280

Chief of party W. R. Daniels

Surveyed by Ken Perrin, James Robinett, John McQuillan

Soundings taken by echo sounder, ~~hand lead, pole~~

Graphic record scaled by Launch Personnel

Graphic record checked by Launch Personnel

Protracted by FIELD SHEET - KWP Automated plot by AMC-CALCOMP 618

Verification by AMC - Verification Branch J. Scott Bradford 11/11/77

Soundings in fathoms (feet) at ~~MLW~~ ~~MLLW~~ Low Water Datum ~~Int. Great Lakes Datum~~ (IGLD 1955: 571.7 Ft)

REMARKS: Survey of Lake St. Clair Dumping Grounds on Chart 14850 (Formerly LS42)

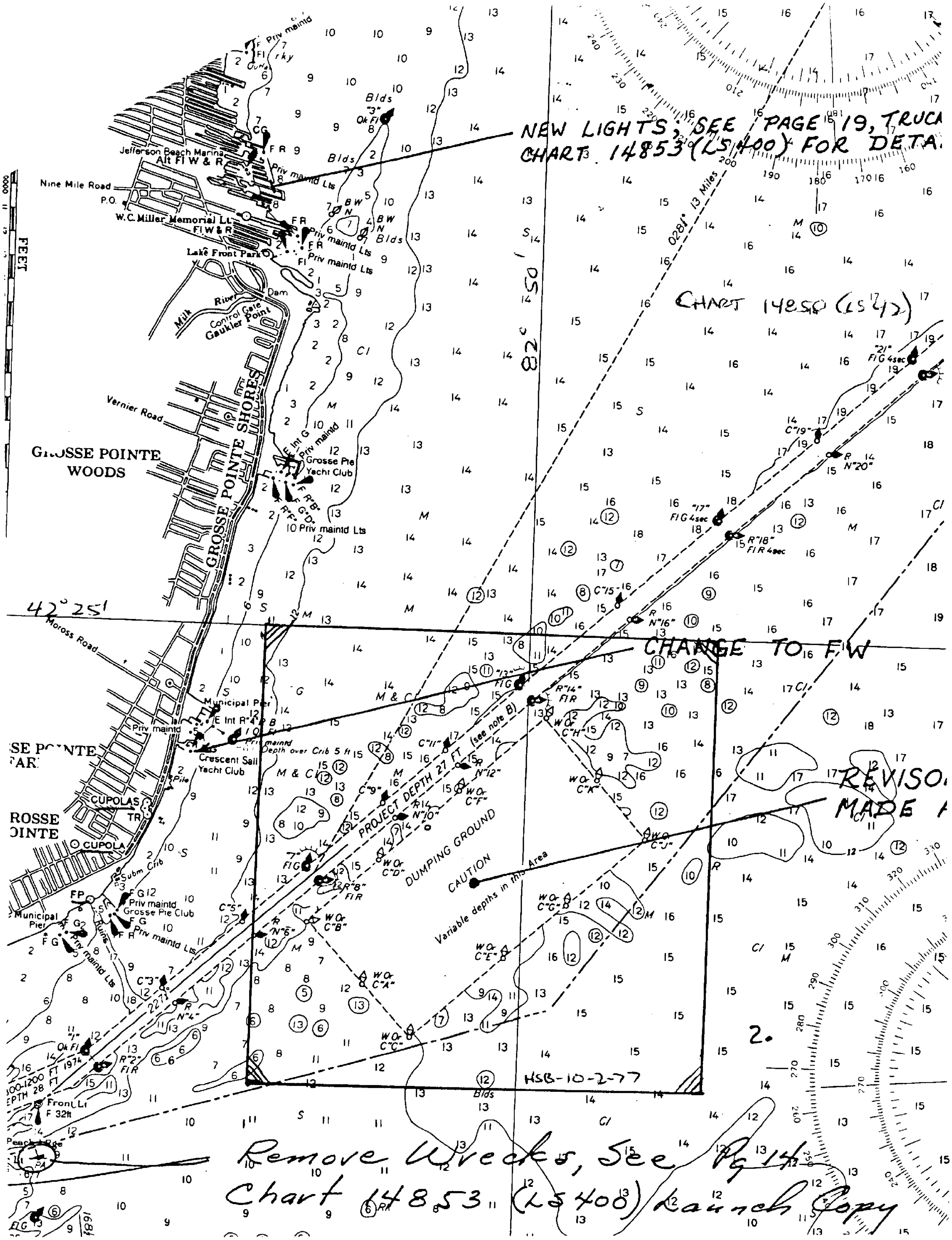
Applied to Pubs 5/11/78

Miscellaneous Data Filed with Field Records

1.

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

☆ U.S. G.P.O. 1972-769-565/519 REG.#6



NEW LIGHTS, SEE PAGE 19, TRUC[...]
CHART 14853 (LS 400) FOR DETA[...]
CHART 14850 (LS 42)
CHANGE TO F W
REVISO[...]
MADE [...]
Remove Wrecks, See Pg 14
Chart 14853 (LS 400) Launch Copy
HSB-10-2-77
2.
42° 25'
82° 50'
Jefferson Beach Marina
Nine Mile Road
P.O.
W.C. Miller Memorial Lt
Lake Front Park
Milk River
Control Gate
Gaukler Point
Dam
GROSSE POINTE SHORES
Vernier Road
GROSSE POINTE WOODS
Grosse Pte Yacht Club
Moross Road
Municipal Pier
Crescent Sail Yacht Club
CUPOLAS
CUPOLA
Grosse Pte Club
Front Lt F 32ft
Peach I Rge
FEET
PROJECT DEPTH 27 FT (see note B)
DUMPING GROUND
CAUTION
Variable depths in this Area
028° 13 Miles
Priv maintd Lts
Depth over Crib 5 ft
Subm Crib
Ruins

DESCRIPTIVE REPORT TO ACCOMPANY

HYDROGRAPHIC SURVEY H-9689 (HSB-10-2-77)

Scale: 1:10,000, 1977
LCDR William R. Daniels

NOAA Launch 1280
Chief of Party

A. Project

This survey is project OPR-301-HFP-77, Chart 14850 (LS42) Lake St. Clair - Dumping Grounds in accordance with project instructions dated 2 Feb 1977.

B. Area Surveyed

This survey covers the Dumping Grounds of Lake St. Clair. The limits of the survey area are as follows:

Lat. 42°23'06"	Long. 82°52'06"
Lat. 42°22'06"	Long. 82°50'54"
Lat. 42°24'36"	Long. 82°49'51"
Lat. 42°23'36"	Long. 82°48'51"

The survey was completed between April 26 and 30, 1977.

C. Sounding Vessel

Launch 1280 was the sounding vessel used to accomplish the survey.

D. Sounding Equipment and Correction to Echo Sounder

All soundings were recorded to the nearest two tenths of a foot. The echo sounder in Launch 1280 was a Raytheon DE-719B, serial #5799. The transducer draft of 0.9 feet for Launch 1280 was applied on the echo sounder when taking soundings.

The graphic records were scanned and checked scanned by trained personnel in accordance with the requirements specified in the Hydrographic Manual.

Bar checks were taken to ensure an accurate echo sounder correction to depth.

Calibration and initial checks were made on the echo sounder to ensure an accurate depth recording.

E. Hydrographic Sheets

Field sheet was plotted at AMC. Smooth processing will be done by the Verification Branch at AMC.

F. Control Stations

There were two control stations used, both were 3rd order or better. The triangulation stations were located and verified by the Revisory Party. Data on establishment of stations is on file with Mr. Shea of CAM 1.

Location of the signals used are as indicated on attached list. (Signal Tape)

G. Hydrographic Position Control

Hydrographic position control was done by the Range-Range method for the entire survey.

Del Norte was used for positioning control. Del Norte was calibrated twice daily to ensure its accuracy. Calibration of Del Norte was made by comparing against a known distance which was measured by a geodimeter. Del Norte Remote serial #264 and #189 were used on the shore stations. Del Norte Master serial #620 was used on Launch 1280.

H. Shoreline

No shoreline occurs on this survey.

I. Crosslines

Crosslines were run at 9% of the regular system of sounding lines. Crosslines were generally in good agreement with differences of no greater than 1 ft.

J. Junctions See Verifier's Report

No contemporary surveys were provided for junction or comparison.

K. Comparison with Prior Surveys See Quality Control Report

No prior surveys were provided for comparison.

L. Comparison with the Chart See Verifier's Report and Quality Control Report

The area covered by this survey does not contain any soundings on the chart.

M. Adequacy of Survey

This survey is complete and adequate for charting purposes.

N. Aids to Navigation *See Verifier's Report*

The Aids to Navigation in the area were not located.

O. Statistics

Nautical Miles of Sounding Lines	69.3
Nautical Miles of Crosslines	6.0
Number of Positions	469

P. Miscellaneous *See Verifier's Report*

The Lake St. Clair Dumping Ground was surveyed to provide soundings on the chart since the Dumping Grounds have been discontinued.

A main scheme of 100 meter line spacing was run over the entire area as per project instructions. In areas of shoaling, 50 and 25 meter spacing was run to give a better delineation.

There were a few extremely shoal areas. These are as follows:

Lat. 42°23'06"	Long. 82°51'40"	6 foot
Lat. 42°23'15"	Long. 82°51'27"	4 foot
Lat. 42°23'41"	Long. 82°50'51"	2½ foot
Lat. 42°24'09"	Long. 82°50'11"	3 foot

Attached to the records for this survey is a copy of an Army Corps of Engineers survey of the same area made in August 1976.
Filed as Bp 103001

Q. Recommendations

None

R. Automated Data Processing

No automated processing was done in the field. The sounding volumes were logged in the office and converted to master tape format using the following programs:

RK330	Data reformat and check	ver. 5/04/76
AM 602	Elinor	ver. 5/21/75

S. References to Reports

None.

Respectfully Submitted,

for J.O. Hall

LT Kenneth W. Perrin

APPROVAL SHEET

Survey H-9689(HSB-10-2-77)

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

The field work was done by LTJG Ken Perrin.

The survey is complete and adequate with one exception. The aids to navigation outlining the Dumping Ground area were not located by the party.

William R. Daniels
LCDR, NOAA
Chief, Hydrographic Surveys Branch

VESNO 1280

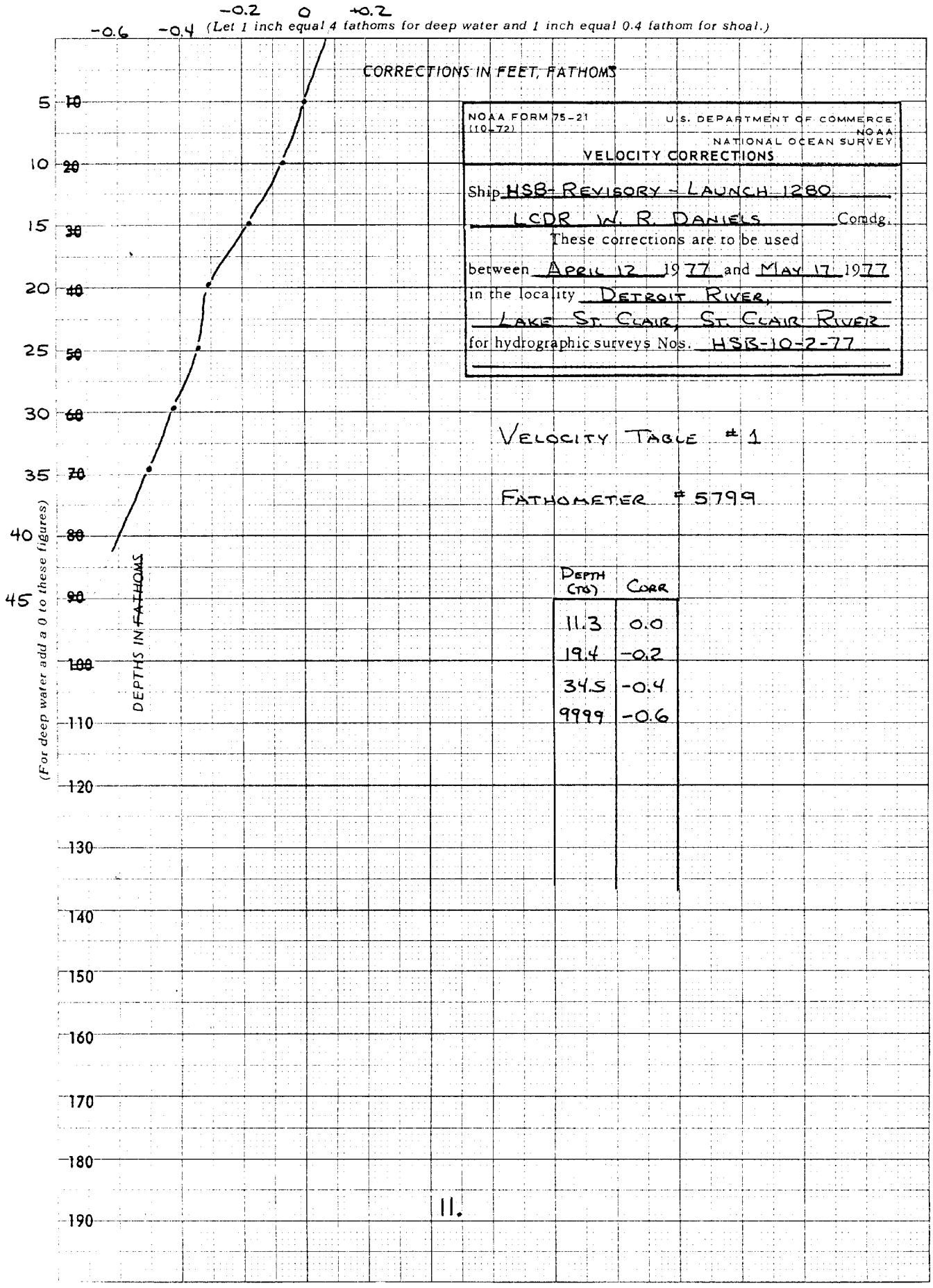
OPR-301-HFP-77

SIGNAL TAPE

HSB-10-2-77

H - 9689

```
100 7  42 26 07377 082 52 10504  250 0003 000001 YACHT  (1858-77)
101 7  42 21 30090 082 55 47740  250 0014 000000 WINDMILL PT. LT. (1932-77)
```



NOAA FORM 75-21 (10-72) U.S. DEPARTMENT OF COMMERCE NOAA NATIONAL OCEAN SURVEY

VELOCITY CORRECTIONS

Ship HSB-REVISORY-LAUNCH 1280

LCDR W. R. DANIELS Comdg.

These corrections are to be used

between APRIL 12 1977 and MAY 17 1977

in the locality DETROIT RIVER, LAKE ST. CLAIR, ST. CLAIR RIVER

for hydrographic surveys Nos. HSB-10-2-77

VELOCITY TABLE # 1

FATHOMETER # 5799

DEPTH (TG)	CORR
11.3	0.0
19.4	-0.2
34.5	-0.4
9999	-0.6

11.

VESWO 1280

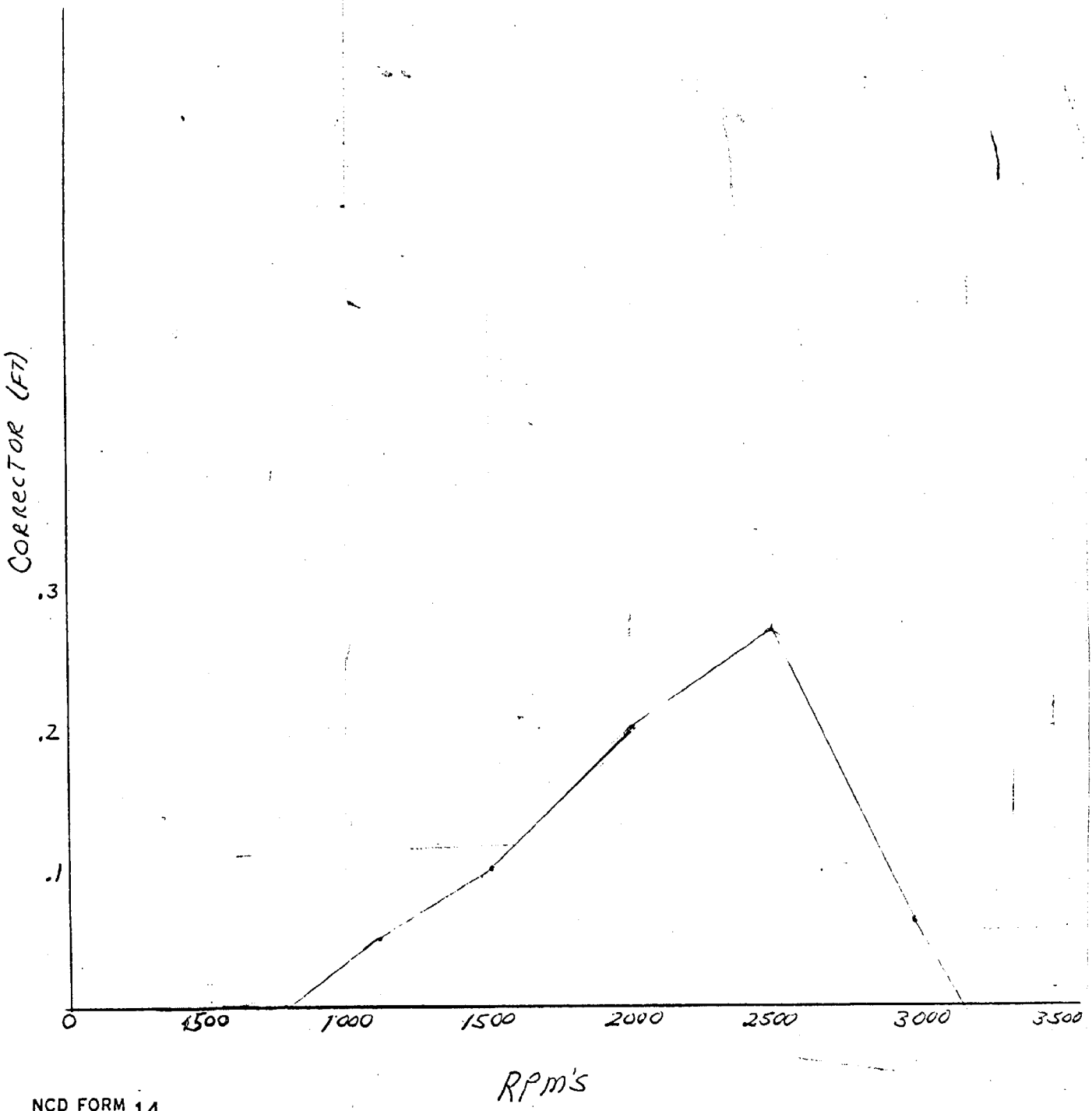
OPR-301-HPP-77

VELOCITY TABLE #1

HSD-10-2-77

H-9689

```
000113 0 0000 0001 000 129000 010277
000194 1 0002
000345 1 0004
999999 1 0006
```



NCD FORM 14
18 OCT 56

GPO 805176

Settlement and Squat Test

May 14, 1976
J.D. 134
Launch 1280

Four runs were made at 1100 RPM, 2000 RMP, 2500 RPM, and 3000 RPM. These speeds are the boat's largest range of hydro speeds.

The procedure was to have a person with a level on shore and a person holding a level rod on the boat. The vessel would run by the observer at each speed and a reading was taken from the level rod. After a comparison of data was made; the average value for each speed was determined, a curve constructed, and a settlement and squat table was prepared. There were no changes in water level during the runs.

Run #1	1100 RPM	1500 RPM	2000 RPM	2500 RPM	3000 RPM
Still	6.05'	6.05'	6.05'	6.05'	6.05'
Underway	6.10	6.15	6.25	6.30	6.10
S & S Corr.	+0.05	+0.10	+0.20	+0.25	+0.05

Run #2	1100 RPM	1500 RPM	2000 RPM	2500 RPM	3000 RPM
Still	6.05	6.05	6.05	6.05	6.05
Underway	6.10	6.15	6.25	6.30	6.10
S & S Corr.	+0.05	+0.10	+0.20	+0.25	+0.05

Run #3	1100 RPM	1500 RPM	2000 RPM	2500 RPM	3000 RPM
Still	6.02	6.02	6.02	6.02	6.02
Underway	6.05	6.10	6.20	6.30	6.10
S & S Corr.	+0.03	+0.08	+0.18	+0.28	+0.08

Run #4	1100 RPM	1500 RPM	2000 RPM	2500 RPM	3000 RPM
Still	6.00	6.00	6.00	6.00	6.00
Underway	6.05	6.10	6.20	6.30	6.05
S & S Corr.	+0.05	+0.10	+0.20	+0.30	+0.05

Average Corrections for Each Speed

1100 RPM	+0.05
1500 RPM	+0.10
2000 RPM	+0.20
2500 RPM	+0.27
3000 RPM	+0.06

NOAA 59-11

Bar Check Abstract

Launch 1280

	Day	5.0	10.0	15.0	20.0	25.0	30.0	35.0	
	102	0.0	0.0	-0.2	-0.2	-0.2	-0.2		
		0.0	0.0	-0.2	-0.2	-0.2	-0.2		
	104	0.0	0.0	-0.1	-0.2	-0.2	-0.4		
		0.0	-0.1	-0.2	-0.2	-0.4	-0.4		
	108	+0.1	0.0	-0.1	-0.2	-0.2			
		+0.1	0.0	-0.1	-0.2	-0.2			
	109	0.0	-0.1	-0.2	-0.3	-0.3	-0.3	-0.5	
		0.0	0.0	-0.2	-0.3	-0.3	-0.4	-0.5	
	116	0.0	-0.1	-0.2	-0.4	-0.5	-0.5		
		0.0	-0.1	-0.2	-0.4	-0.5	-0.6		
	120	0.0	-0.1	-0.2	-0.3	-0.4	-0.5		
		0.0	-0.1	-0.2	-0.3	-0.3	-0.5		
	122	0.0	-0.1	-0.1	-0.3	-0.2	-0.3		
		0.0	-0.1	-0.1	-0.2	-0.2	-0.3		
	137	0.0	-0.1	-0.3	-0.5	-0.6			
		0.0	-0.2	-0.2	-0.5	-0.5			
Avg	Corr	0.0	-0.07	-0.18	-0.31	-0.34	-0.42	-0.50	

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

WATER LEVEL NOTE FOR HYDROGRAPHIC SHEET

Processing Division: Atlantic Marine Center: CAM 3

Hourly heights are approved for

Water Level Station Used: 903-4052 St. Clair Shores, Michigan

Period: April 26 thru April 30, 1977

HYDROGRAPHIC SHEET: H-9689

OPR: 301-HFP-77

Locality: Lake St. Clair

Plane of reference: low water datum (IGLD 1955 : 571.7 feet)

Remarks:

for Don M. Gullen
Chief, Tides & Water Levels Branch

U.S. Department of Commerce
NOAA, NOS Rockville, Maryland
Great Lakes Water Levels, C3314

APRIL 1977
WATER LEVELS IN FEET
IGLD (1955)

Station 4052 :
St. Clair Shores, Michigan on Lake St. Clair

D1.F4

EST	17	18	19	20	21	22	23	24
0100	574.19	574.15	574.19	574.15	574.12	574.17	574.32	574.51
0200	574.17	574.17	574.19	574.21	574.11	574.13	574.37	574.56
0300	574.18	574.17	574.18	574.16	574.14	574.17	574.37	574.47
0400	574.22	574.19	574.21	574.19	574.19	574.20	574.31	574.52
0500	574.20	574.20	574.21	574.14	574.21	574.14	574.37	574.52
0600	574.18	574.22	574.23	574.17	574.13	574.18	574.41	574.52
0700	574.19	574.18	574.19	574.17	574.17	574.19	574.42	574.52
0800	574.19	574.21	574.13	574.17	574.16	574.15	574.38	574.52
0900	574.19	574.18	574.16	574.15	574.13	574.15	574.43	574.50
1000	574.17	574.17	574.18	574.20	574.10	574.18	574.44	574.59
1100	574.18	574.16	574.19	574.16	574.13	574.38	574.47	574.55
1200	574.19	574.14	574.17	574.20	574.15	574.18	574.45	574.54
1300	574.17	574.21	574.18	574.17	574.16	574.26	574.43	574.56
1400	574.18	574.13	574.20	574.16	574.13	574.19	574.46	574.55
1500	574.17	574.19	574.16	574.18	574.12	574.27	574.47	574.52
1600	574.19	574.17	574.18	574.17	574.19	574.26	574.45	574.61
1700	574.17	574.16	574.19	574.14	574.18	574.22	574.48	574.61
1800	574.18	574.22	574.21	574.18	574.15	574.30	574.50	574.54
1900	574.16	574.17	574.17	574.19	574.13	574.24	574.50	574.59
2000	574.18	574.21	574.16	574.16	574.18	574.29	574.47	574.62
2100	574.19	574.23	574.19	574.15	574.16	574.26	574.48	574.57
2200	574.20	574.20	574.12	574.15	574.10	574.29	574.55	574.62
2300	574.19	574.20	574.22	574.18	574.09	574.24	574.49	574.53
2400	574.16	574.21	574.25	574.16	574.13	574.27	574.52	574.59
MEAN	574.18	574.18	574.19	574.17	574.14	574.22	574.44	574.55

EST	25	26	27	28	29	30
0100	574.67	574.59	574.80	574.81	574.71	574.64
0200	574.57	574.79	574.82	574.66	574.68	574.65
0300	574.50	574.79	574.81	574.66	574.70	574.67
0400	574.62	574.81	574.78	574.72	574.71	574.62
0500	574.59	574.81	574.79	574.74	574.68	574.62
0600	574.68	574.71	574.84	574.70	574.68	574.66
0700	574.67	574.85	574.79	574.77	574.68	574.66
0800	574.69	574.81	574.79	574.76	574.68	574.66
0900	574.70	574.83	574.77	574.80	574.70	574.62
1000	574.72	574.84	574.75	574.86	574.70	574.71
1100	574.74	574.65	574.79	574.57	574.69	574.63
1200	574.67	574.86	574.80	574.78	574.67	574.62
1300	574.77	574.84	574.75	574.78	574.68	574.66
1400	574.66	574.85	574.76	574.78	574.68	574.62
1500	574.69	574.81	574.76	574.79	574.71	574.63
1600	574.71	574.86	574.73	574.77	574.67	574.61
1700	574.72	574.85	574.73	574.81	574.69	574.63
1800	574.82	574.85	574.63	574.77	574.69	574.60
1900	574.77	574.89	574.68	574.77	574.68	574.60
2000	574.77	574.81	574.79	574.76	574.68	574.63
2100	574.81	574.78	574.79	574.82	574.67	574.59
2200	574.82	574.80	574.73	574.77	574.67	574.64
2300	574.78	574.84	574.77	574.65	574.69	574.59
2400	574.76	574.84	574.73	574.71	574.63	574.57
MEAN	574.70	574.81	574.77	574.75	574.68	574.63

MONTHLY MAXIMUM
574.89
1900/26

MONTHLY MINIMUM
573.58
1700/05

MONTHLY MEAN
574.73

P = partial record

NOAA FORM 76-155
(11-72)

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

SURVEY NUMBER

H-9689

GEOGRAPHIC NAMES

Name on Survey	A ON 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	
LAKE ST CLAIR										1
										2
										3
										4
										5
										6
										7
										8
										9
										10
										11
										12
										13
										14
										15
										16
						APPROVED				17
						Chas. E. Harrington				18
						STAFF GEOGRAPHER - CSL-2				19
						10 Feb. 1978				20
										21
										22
										23
										24
										25

APPROVAL SHEET
FOR
SURVEY H-9689

A. All revisions and additions made on the smooth sheet during verification have been entered in the magnetic tape records for this survey. A new final position printout has/~~has not~~ been made. A new final sounding printout has/~~has not~~ been made.

B. The verified smooth sheet has been inspected, is complete, and meets the requirements of the Provisional Hydrographic Manual. Exceptions are listed in the Verifier's Report.

Date: Dec 07, 1977

Signed: William L Jones

Title: Chief, Verification Branch

NOAA FORM 77-27 (5-77) | U. S. DEPARTMENT OF COMMERCE NOAA | HYDROGRAPHIC SURVEY NUMBER

HYDROGRAPHIC SURVEY STATISTICS

H=9689

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

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET	1	BOAT SHEETS & PRELIMINARY OVERLAYS	1&4
DESCRIPTIVE REPORT	1	SMOOTH OVERLAYS: POS. ARC, EXCESS	2

DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/ SOURCE DOCUMENTS
ENVELOPES	1					
CAHIERS	1		1-file			data
VOLUMES	4					
BOXES			1-smooth			

T-SHEET PRINTS *(List)*

SPECIAL REPORTS *(List)*

OFFICE PROCESSING ACTIVITIES

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

PROCESSING ACTIVITY	AMOUNTS		
	PRE-VERIFICATION	*VERIFICATION*	*TOTALS*
POSITIONS ON SHEET			469
POSITIONS CHECKED		59	
POSITIONS REVISED		5	
SOUNDINGS REVISED		79	
SOUNDINGS ERRONEOUSLY SPACED		0	
SIGNALS (CONTROL) ERRONEOUSLY PLOTTED		0	
	TIME – HOURS		
CRITIQUE OF FIELD DATA PACKAGE (PRE-VERIFICATION)			
VERIFICATION OF CONTROL		2	
VERIFICATION OF POSITIONS		20	
VERIFICATION OF SOUNDINGS	2		
COMPILATION OF SMOOTH SHEET		12	
APPLICATION OF TOPOGRAPHY		0	
APPLICATION OF PHOTOBATHYMETRY		0	
JUNCTIONS		0	
COMPARISON WITH PRIOR SURVEYS & CHARTS		2	
VERIFIER'S REPORT		2	
OTHER		2	
TOTALS	2	40	42

Pre-Verification by M. B. Hickson, F. L. Saunders	*Beginning Date* 07/13/77	*Ending Date* 08/03/77
Verification by J. S. Bradford	*Beginning Date* 11/05/77	*Ending Date* 11/29/77
Verification Check by W. L. Jonns	*Time (Hours)* 2	*Date* 11/30/77
Marine Center Inspection by Hydrographic Inspection Team (AMC)	*Time (Hours)* 4	*Date* 12/02/77
Quality Control Inspection by R.W. Derkazarian	*Time (Hours)* 46	*Date* 2/3/78
Requirements Evaluation by D.J. Hill	*Time (Hours)* 4	*Date* 4/19/78

Carstens 4 hr 4/13/78

Reg. No. 9689

The Computer and Excess Sounding Cards for this survey have not been corrected to reflect the changes made to the Computer Card and Excess Card Printouts at this time of the review.

When the cards have been updated to reflect the final results of the survey the following shall be completed:

CARDS CORRECTED

DATE_____ TIME REQ'D_____ INITIALS_____

REMARKS:

Reg. No. _____

The magnetic tape containing the data for this survey has not been corrected to reflect the changes made during evaluation and review.

When the magnetic tape has been updated to reflect the final results of the survey, the following shall be completed:

MAGNETIC TAPE CORRECTED

DATE_____ TIME REQ'D._____ INITIALS_____

REMARKS:

H-9689

Information for Future Presurvey Reviews

Future surveys should include a wire-drag investigation of this area. The present survey was not developed at a close enough interval and shoaler depths may exist.

Position Index		Bottom Change Index	Use Index	Resurvey Cycle
Lat.	Long.			
422	8250	-	-	50 years
422	8300	-	-	estimated

ATLANTIC MARINE CENTER
VERIFIER'S REPORT

REGISTRY NO. H-9689 FIELD NO. HSB-10-2-77

Michigan; Detroit; Lake St. Clair

SURVEYED: April 26 through April 30, 1977

SCALE: 1:10,000 PROJECT NO.: OPR-301

SOUNDINGS: Raytheon DE-719B CONTROL: Del-Norte (Range-Range)

Chief of Party ..... W. R. Daniels
Surveyed by ..... K. W. Perrin
..... J. Robinett
..... J. McQuillan
Automated Plot by ..... Calcomp Plotter #618 (AMC)
Verified and Inked by ..... J. S. Bradford
November 29, 1977

1. Introduction

a. No unusual problems were encountered during verification.

b. The projection parameter has been revised and inserted in the Descriptive Report.

2. Control and Shoreline

a. The control is adequately described in Sections F and G of the Descriptive Report.

b. There is no shoreline within the limits of the survey.

3. Hydrography See Quality Control Report, para 2.1

a. Depths at crossings are in good agreement.

b. The standard depth curves are adequately delineated where continuous bottom features are distinct. Because of the nature of a dumping ground, there may be many features consisting of piles of isolated spoil that can be interpreted as continuous features from pile to pile. It is questionable whether the curves shown precisely define the bottom configuration.

c. For practical charting purposes the bottom configuration is adequately developed. For the full development of all bottom features present on the fathogram, 25 meter line spacing would have been necessary, but it is doubtful whether that would have been economically justifiable.

4. Condition of Survey

The Smooth Sheet and accompanying overlays, hydrographic records, and the Descriptive Report are adequate and conform to the requirements of the Provisional Hydrographic Manual, with the following exceptions:

a. Bottom samples and Log Sheet M's were ignored.

b. Location of the 10 buoys that outline the dumping area were also ignored by the hydrographer.

5. Junctions

There are no contemporary surveys available for junction. If any surveys are available, the junctions should be effected during Quality Control evaluation of this survey.
No contempory junctional survey exists.

6. Comparison with Prior Surveys
See Quality Control Report, para 3

There were no prior surveys available for comparison at the time of this report. Considering the nature of the area, a dumping ground, it is doubtful whether any meaningful comparison could be made.

7. Comparison With Chart 14850 (35th Edition, August 21, 1976)
See Quality Control Report, para 4.

a. Hydrography

The charted hydrography originates with sources not readily ascertainable at the time of this report. Approximately 90% of the chart area common to the survey is covered by an area void of depths, with a caution note describing variable depths in the area.

The present survey is adequate to supersede the charted information in the common area.

b. Controlling Depths

The present survey depths are consistent with the charted channel project depth of 27 feet, within the common area of the present survey.

c. Aids to Navigation

See Section 4, Condition of Survey, and Section 8, Compliance With Instructions, of this report.

8. Compliance With Instructions See O.C. Report, para 2.

The hydrographer did not comply with the Project Instructions, Section 4.11, pertaining to bottom samples. Also, Section 4.5.13, requiring the locating and describing of aids to navigation, was ignored.

9. Additional Field Work

This is considered an adequate basic survey with the exceptions noted above and additional field work is not recommended.

Inspection Report
H-9689

Any verification errors regarding procedures and presentation of survey data detected during inspection by the Hydrographic Inspection Team have been corrected before submission for administrative approval. HIT comments regarding quality of field work, compliance with instructions, and adequacy of the survey have been incorporated within the Verifier's Report.

Examined and Approved:
Hydrographic Inspection Team
Date: Nov 29, 1977

Robert A. Trauschke, CDR, NOAA
Chief, Processing Division

~~Absent~~ Charles H. Nixon, CDR, NOAA
Chief, Operations Division

R. D. Sanocki
Technical Assistant
Processing Division

C. Douglas Mason, LT, NOAA
Chief, Electronic Data
Processing Branch

Billy J. Stephenson
Team Leader
Verification Branch

Approved/Forwarded

Robert C. Munson
RADM, NOAA
Director, Atlantic Marine Center

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SURVEY
Rockville, Md. 20852

C352/RWD

February 3, 1978

TO: A. J. Patrick
Chief, Marine Surveys Division

THRU: Chief, Quality Control Branch

FROM: R. W. DerKazarian
Quality Evaluator

SUBJECT: Quality Control Report for H-9689 (1977), Dumping Ground of Lake St. Clair, Detroit, Michigan

Survey H-9689 was inspected to evaluate the accuracy and adequacy of the survey with respect to data acquisition, delineation of the bottom, determination of least depths, navigational hazards, sounding line crossings, smooth plotting, decisions and actions taken by the verifier, and the cartographic presentation of data. In general, the survey was found to conform to the National Ocean Survey's standards and requirements except as stated in the report by the verifier and the Hydrographic Inspection Team and as follows:

1. The Descriptive Report did not include the approved "Tide Note" which was appended during the quality evaluation.

2. To further emphasize the verifier's statement under paragraph 3.c., "25-meter line spacing would have been necessary," this survey was to have been conducted to adequately develop the bottom configuration to open the area for surface navigation. With this intention it would have been desirable to run splits or developments on many of the shoal indications such as the 8- and 10-foot depths that fell in areas of 10 and 14 feet respectively. Project instructions required 100-meter spacing; however, shoaler depths should have been investigated.

3. The following prior surveys were considered for comparison during the quality evaluation.

a.	1-1392	(1919)	1:10,000	U.S. Lake Survey
	1-1393	(1919)	1:10,000	U.S. Lake Survey

These prior surveys taken together are common in area with the present survey; however, they are sparsely sounded and a comparison between the past and present surveys would not be conclusive.

b. 1-2118 (1961) 1:10,000 U.S. Lake Survey
1-2119 (1961) 1:10,000 U.S. Lake Survey

These prior surveys taken together are common in area with the present survey. The prior work consisted primarily of 200- to 300-meter line spacing; with one area closely developed. Due to the high changeability of the bottom configuration an accurate comparison would be difficult. Inasmuch as there were many prior shoaler depths shown in the areas of the present survey which have not been sufficiently developed, these have been carried forward to supplement the present survey, except when deepening on the present survey was evident.

A prior 0-foot sounding in latitude 42°23.66', longitude 82°50.89' has been developed on the present survey with 25-meter line spacing and the shoalest depth obtained is 2 feet. The 0-foot sounding is considered no longer in existence and should be disregarded.

With the addition of the numerous selected soundings carried forward, the present survey is adequate to supersede the prior surveys in the common area.

4. The following chart was not considered in the Comparison of Charts during verification. This comparison and additional information should be noted.

Recreation Craft Series, Chart 14853, 1974 Edition

a. Hydrography

The charted hydrography of this chart and chart 14850 discussed in the Verifier's Report originates primarily with the previously discussed prior surveys which require no further consideration.

Attention is directed to the following:

(1) Several shoaler soundings on these charts falling between the limits of the dumping grounds and the maintained channel limit have not been identified. These soundings which are listed below possibly originate with Corps of Engineers surveys which are not readily available. The soundings should be retained on the chart.

Depth (feet)	Latitude	Longitude
9	42°23.06'	82°51.92'
10	42°23.52'	82°51.20'
7	42°23.61'	82°51.20'
10	42°23.94'	82°50.62'

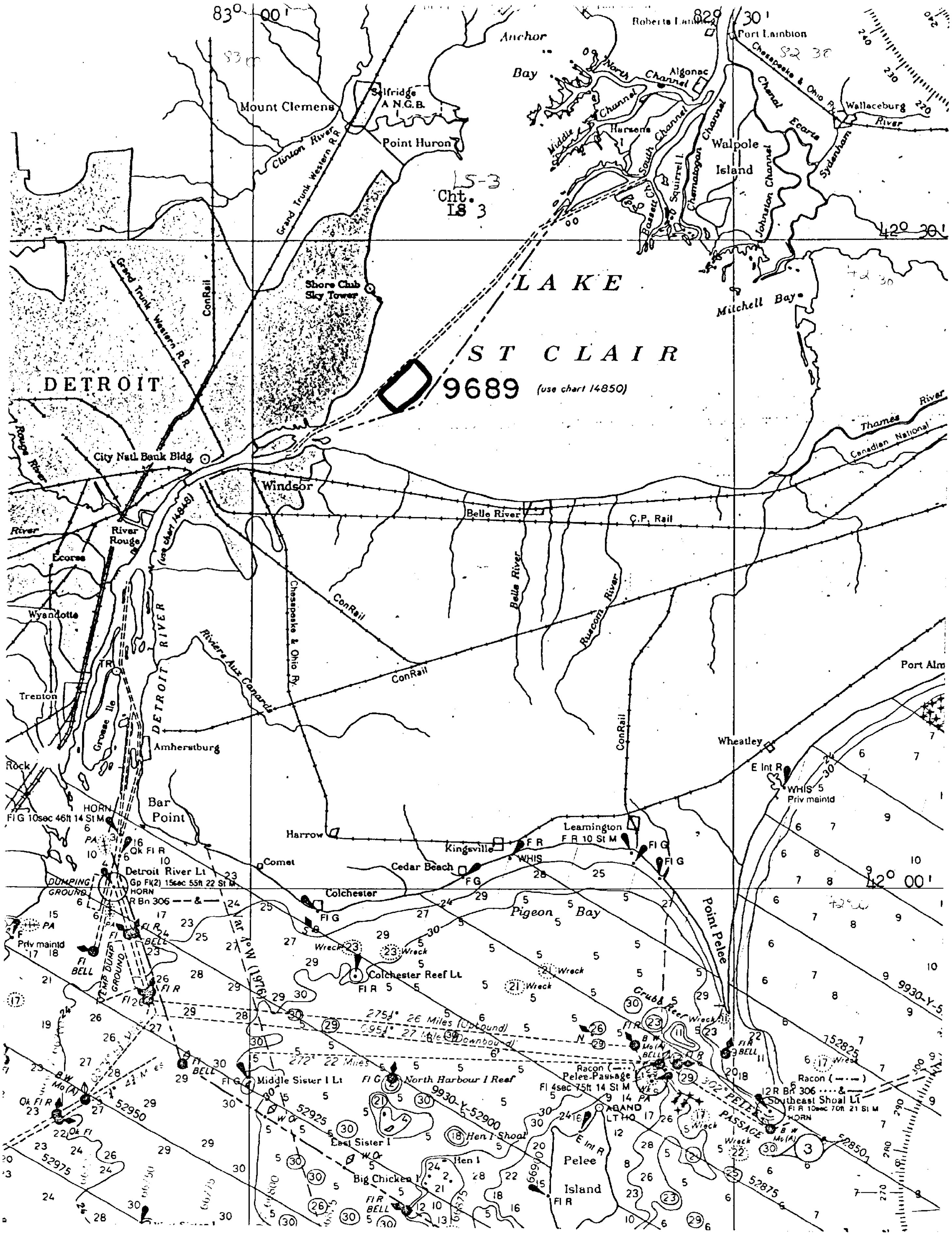
(2) The islet in latitude 42°23.66', longitude 82°50.89' originates with the 0-foot sounding discussed in paragraph 3.b. above, which was apparently identified as an islet. This item should be deleted from the chart.

(3) The U.S. Army Corps of Engineers conducted a wire-sweep survey from October 1975 to August 1976 (Bp-103001), with a project depth of 8 feet. This survey should be considered during the present charting of the area.

With the exceptions noted, the present survey is considered adequate to supersede the charted information; however, due to the possibility that shoaler depths might exist, a cautionary note that "Depths of 1 to 2 feet shoaler than charted might exist" should be charted in the vicinity.

5. The present survey is considered adequate for charting. However, shoaler depths may exist in this area and supplemental information of the Corps of Engineers should also be utilized in charting.

cc:
C351



83° 00'
82° 30'
Anchor Bay
Roberts Landing
Port Lambton
Algonac
North Channel
Middle Channel
Harsens I.
South Channel
Chenal Ecarte
Chesapeake & Ohio Ry.
Wallaceburg
Sydenham River
Chematogan Channel
Walpole Island
Johnston Channel
Bassett Ch.
Squirrel I.
Pass
Mount Clemens
Selfridge A.N.G.B.
Point Huron
Clinton River
Grand Trunk Western R.R.
Cht. LS 3
42° 30'
LAKE ST CLAIR
Mitchell Bay
Shore Club Sky Tower
ConRail
9689 (use chart 14850)
DETROIT
Thames River
Canadian National
City Natl Bank Bldg.
Windsor
Belle River
C.P. Rail
Rouge River
River Rouge
Ecorse
Wyandotte
(use chart 14848)
DETROIT RIVER
Chesapeake & Ohio Ry.
Rivière Aux Canards
Ruscom River
Trenton
Grosse Ile
Amherstburg
Rock
Port Alma
Wheatley
E Int R
WHIS
Priv maintd
Bar Point
Harrow
Kingsville
Cedar Beach
Leamington
F R 10 St M
Fl G
Comet
Colchester
Detroit River Lt
Gp Fl(2) 15sec 55ft 22 St M
HORN
R Bn 306
Fl G 10sec 46ft 14 St M
DUMPING GROUND
TEMP DUMP GROUND
42° 00'
Pigeon Bay
Point Pelee
Colchester Reef Lt
Wreck
Grubb Reef
Var 4° W (1976)
275° 26 Miles (Upbound)
095° 27 Miles (Downbound)
272° 22 Miles
Middle Sister I Lt
North Harbour I Reef
Pelee Passage Lt
Fl 4sec 75ft 14 St M
Racon
302° PELEE PASSAGE
Southeast Shoal Lt
Fl R 10sec 70ft 21 St M
HORN
9930-Y-52900
9930-Y-5
52825
52850
52875
52925
52950
52975
East Sister I
Hen I Shoal
Hen I
Big Chicken I
Pelee Island
Fl R BELL

FORM C&GS-8352
(3-25-63)

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. 9689

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
14853 p.17	9/29/78	Mark J. Friese	Full ~~Part Before~~ After Verification Review Inspection Signed Via
			Drawing No. Consider hydro fully applied in conjunction
			with C of E Bp-104535 (Dumping Grounds)
14850	10-6-78	Ralph B. Ross	Full ~~Part Before~~ After Verification Review Inspection Signed Via
			Drawing No. Consider fully appl thru cht 14853 - Generalized
			to some extent for this scale Cht.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
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