D00133

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT

Type of Survey Reconnaissance

Field No. None

Registry No. D00133

LOCALITY

State Michigan

General Locality Detroit River

Locality Northern Portion

Lake St. Clair to 1 mile N of Fighting Is.

2000

CHIEF OF PARTY
Brian A. Link

LIBRARY & ARCHIVES

DATE

NOAA FORM 77-28
(10/72)

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

REGISTER NO.

D00133

HYDROGRAPHIC TITLE SHEET

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.

HPS Plotter Sheet 11

State: Michigan

General locality: Detroit River

Locality: Lake St. Clair to 1 mile N. of Fighting Island

Scale: 1:20,000

Date of survey: July 18, 2000 - August 7, 2000

Instructions dated: 5-15-0

Project No.: OPR-W408-NRB

Vessel: NOAA Launch 1211

Chief of party: Brian A. Link

Surveyed by: Navigation Response Team 1

Soundings taken by echo sounder, hand lead, pole: Echosounder - Innerspace Model 448

Graphic record scaled by: MJM, JBG*

Graphic record checked by: MJM, JBG*

Protracted by:

Automated plot by: HEWLET-PACKARD 2500CP PLOTTER

Verification by: Atlantic Hydrographic Branch PERSONNEL

Soundings in fathoms (feet) at MLW (MLLW) IGLD 1985**

REMARKS: * MJM - Mark J. McMann, JBG - John B. Gaskin

** Soundings plotted and referenced in reports in feet but acquired in meters.

NOTES IN RED WERE MADE DURING OFFICE PROCESSING

NOAA FORM 77-28 SUPERSEDES FORM C & GS-837.

Descriptive Report to Accompany
Hydrographic Survey D00133
OPR-W408-NRB
Scale: 1:10,000
Navigation Response Team 1 – Launch 1211
Brian A. Link - Team Leader

This survey was conducted according to Port Instructions OPR-W408-NRB, Detroit and St. Clair Rivers, Michigan, dated May 15, 2000. This survey covers the Detroit River from Lake St. Clair to 1.0 mile north of Fighting Island.

The purpose of this reconnaissance survey is to provide single-beam echo sounder hydrography at 100-meter line spacing throughout the survey area. This data was requested by the State of Michigan, Department of Environmental Quality, Source Water Assessment Program and the City of Detroit Water and Sewerage Department. The bathymetry will be used to enhance an existing preliminary flow model of the river to identify likely sources of water to public supply intakes and to provide a basis for coordinating real-time responses to contaminant spills. The hydrography will also be used to update the nautical charts.

A. AREA SURVEYED

The sheet letter for this survey is B.

The approximate survey area limits are:

North - 42°21'48"N
South - 42°15'38"N
East - 082°55'05"W
West - 083°07'19"W

This survey was conducted from July 18, 2000 (DN 200) to August 3, 2000 (DN 216).

B. DATA ACQUISITION AND PROCESSING SEE ALSO THE EVALUATION REPORT

B1. Equipment

An Innerspace model 448 depth sounder, S/Ns 186 was used to acquire all echo soundings on this survey. A standard lead line calibrated in meters, S/N 1211, was used during this survey for comparison with the echo sounder. No problems were encountered with any of the sounding equipment.

A Starlink DGPS Beacon Receiver (S/N 855) was used as the remote station on launch 1211.

The instrument used for determining corrections for the speed of sound through the water column was a Seabird-Seacat Velocity Profiler, model 19-03, S/N 192276-287.

NOAA launch 1211, a 27-foot SeaArk with a draft of 0.5 meters, was used to collect all survey data. There were no unusual vessel configurations or problems encountered with the vessel on this survey, however launch 1211 was totally destroyed by fire on August 19, 2000.

B2. Quality Control

The integrity of the survey data for D00133 is insured by adherence to the Field Procedures Manual and the NOS Hydrographic Surveys Specifications and Deliverables Manual, June 2000.

Cross lines run on this survey represented 15.5% of the total main scheme mileage. The cross line soundings were within 2 feet of the main scheme hydrography throughout the survey area.

The lead line for launch 1211 was calibrated using a steel tape on April 17, 2000. No corrections were necessary. A static draft of 0.5 meters was applied to the sounding plots by the HPS REAPPLY program. The draft was measured by subtracting the difference from a punch mark on the side of launch 1211, 0.6 meter above the transducer, to the water surface.

Settlement and squat measurements for launch 1211 were taken on the previous survey, however the exact date could not be readily determined. The source data was not available because of the shut down of the field party which conducted this survey, causing the temporary abandonment of the trailer housing this information. These measurements were conducted in Tampa Bay, FL using the level method. Settlement and squat correctors were applied to the sounding plots using the HPS REAPPLY program.

Differential GPS (DGPS) was used for all hydrographic data acquired on this survey. DGPS performance checks were conducted in accordance with FPM 3.4.4 by comparing the DGPS position of the vessel to a calibration point determined using the Trimble Pro XRS portable GPS system. The point was set at the launch mooring location, which for this survey was at the USACE Fort Wayne boatyard facility. All records of the calibrations were destroyed in the fire which consumed launch 1211 on August 19, 2000. None of the calibration values exceeded tolerances.

B3. Corrections to Echo Soundings

There are no deviations to be discussed in this section. Refer to Section **C. Correction to Echo Soundings** of the Data Acquisition and Processing Report (copy appended). DATA FILED AT ATLANTIC HYDROGRAPHIC BRANCH (AHB)

C. VERTICAL AND HORIZONTAL CONTROL

The instrument used for determining corrections for the speed of sound through the water column was a Seabird-Seacat Velocity Profiler. Data quality assurance tests were performed after each cast. Program VELOCITY was used for computing the correctors. Corrections were applied to the sounding plot using the HPS REAPPLY program.

Field water level reduction of soundings is based on unverified actual water levels from the NOAA/CO-OPS website. The Center for Operational Oceanographic Products and Services provided zoning correctors for the project area. The zoning equations provided were more complex than the HDAPS processing software program was configured for. Therefore, in the interest of timely field data processing, field zoning based on interpolating the area between the gages, then applying correctors direct from the closest gage, was used for field processing. All soundings on this survey are corrected to IGLD 1985. APPROVED TIDES AND ZONING WERE APPLIED DURING OFFICE PROCESSING

The horizontal control datum for this project is the North American Datum (NAD) of 1983. The control reference station used for this survey was the USCG DGPS beacon Detroit, MI (Station ID #838), located at 42°17.8' N; 083°5.7' W. SEE ALSO EVALUATION REPORT

D. RESULTS AND RECOMMENDATIONS

D1. Chart Comparison SEE ALSO EVALUATION REPORT

Hydrography acquired on this survey was compared with chart 14848, 55th edition, November 22, 1997.

Soundings from this survey generally agree with charted soundings to within one to two feet throughout the survey area with the following exceptions:

- A finger shoal between 42°19'45.5"N, 083°00'47.7"W and 42°19'50.5"N, 082°59'10.8"W currently charted with depths of 28 and 29 feet shows evidence of receding, by the surveyed depths of 30 to 38 feet. CONCUR

- The Scott Middle Ground Shoal centered at 42°20'51.0"N, 082°59'14.7"W, shows some enlargement at both the eastern and western ends when comparing this survey data to the charted soundings. CONCUR

The above exceptions were the only areas of note, when considering that no sounding developments were done because of time limitations.

No AWOIS items were assigned for this project because of the perceived [during project planning] time constraints to complete the higher priority bathymetry.

There were no Danger to Navigation reports submitted for this survey.

D2. Additional Results

There were no Prior Survey comparisons conducted by the hydrographer for this survey. SEE ALSO EVACUATION REPORT

No aids to navigation were located during this survey due to time constraints.

There are numerous bridges, cables, pipelines, and crossing signs throughout the survey area. These regions were visually identified and compared to the raster charts. No changes are recommended. Ferry routes are accurately charted and require no changes or additions to the charts.

APPROVAL SHEET
Reconnaissance Survey
OPR-W408-NRB
D00133
July - August 2000

This reconnaissance survey was conducted in accordance with the Project Instructions for OPR-W408-NRB, the Hydrographic Manual, the Hydrographic Survey Guidelines, the Field Procedures Manual and the Hydrographic Specifications and Deliverables Manual. All reports, records, and survey plots were reviewed by the team leader. The team leader directly supervised this survey.

This survey is a complete reconnaissance survey for the areas described in Section A of this report.

Brian A. Link
Team Leader, Navigation Response Team 1

John W. Humphrey, CDR, NOAA
Chief, Navigation Response Branch

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Silver Spring, Maryland 20910

WATER LEVEL NOTE FOR HYDROGRAPHIC SURVEY

DATE: February 12, 2001

HYDROGRAPHIC BRANCH: Atlantic
HYDROGRAPHIC PROJECT: OPR-W408-NRT1-2000
HYDROGRAPHIC SHEET: D00133

LOCALITY: Northern Detroit River, MI
TIME PERIOD: July 18 - August 8, 2000

WATER LEVEL STATION: 906-3090 Fermi Power Plant, MI
Lat. 42° 57.6'N Lon. 83° 15.5'W
PLANE OF REFERENCE (IGLD 85): 173.50 meters

WATER LEVEL STATION: 904-4020 Gibraltar, MI
Lat. 42° 5.5'N Lon. 83° 11.2'W
PLANE OF REFERENCE (IGLD 85): 173.56 meters

WATER LEVEL STATION: 904-4030 Wyandotte, MI
Lat. 42° 12.2'N Lon. 83° 8.8'W
PLANE OF REFERENCE (IGLD 85): 173.92 meters

WATER LEVEL STATION: 904-4036 Fort Wayne, MI
Lat. 42° 17.9'N Lon. 83° 5.6'W
PLANE OF REFERENCE (IGLD 85): 174.07 meters

WATER LEVEL STATION: 904-4049 Windmill Point, MI
Lat. 42° 21.5'N Lon. 82° 55.8'W
PLANE OF REFERENCE (IGLD 85): 174.34 meters

WATER LEVEL STATION: 903-4052 St. Clair Shores, MI
Lat. 42° 28.4'N Lon. 82° 52.8'W
PLANE OF REFERENCE (IGLD 85): 174.40 meters

WATER LEVEL NOTE FOR HYDROGRAPHIC SURVEY SHEET D00133 cont.

REMARKS: RECOMMENDED ZONING

WATER SURFACE COMPUTATIONS

Zone	Equation	Station #	Station Name
LE	A	A=906-3090	Fermi Power Plant
DR001	B-1/2(B-A)	B=904-4020	Gibraltar
DR002	B	C=904-4030	Wyandotte
DR003	C-11/12(C-B)	D=904=4036	Fort Wayne
DR103	C-11/12(C-B)	E=904-4049	Windmill Point
DR004	C-5/6(C-B)	F=903-4052	St. Clair Shores
DR104	C-5/6(C-B)		
DR005	C-3/4(C-B)		
DR105	C-3/4(C-B)		
DR006	C-2/3(C-B)		
DR106	C-2/3(C-B)		
DR007	C-7/12(C-B)		
DR107	C-7/12(C-B)		
DR008	C-1/2(C-B)		
DR108	C-1/2(C-B)		
DR009	C-5/12(C-B)		
DR109	C-5/12(C-B)		
DR010	C-1/3(C-B)		
DR110	C-1/3(C-B)		
DR011	C-1/4(C-B)		
DR111	C-1/4(C-B)		
DR012	C-1/6(C-B)		
DR112	C-1/6(C-B)		
DR013	C-1/2(C-B)		
DR113	C-1/2(C-B)		
DR014	C		
DR015	D-4/5(D-C)		
DR016	D-3/5(D-C)		
DR017	D-2/5(D-C)		
DR018	D-1/5(D-C)		
DR019	D		
DR020	E-8/9(E-D)		
DR021	E-7/9(E-D)		
DR022	E-2/3(E-D)		
DR023	E-5/9(E-D)		
DR024	E-4/9(E-D)		
DR025	E-1/3(E-D)		
DR026	E-2/9(E-D)		
DR027	E-1/9(E-D)		

WATER LEVEL NOTE FOR HYDROGRAPHIC SURVEY SHEET D00133 cont.

WATER SURFACE COMPUTATIONS - continued

Zone	Equation	Station #	Station Name
DR028	E	E=904-4049	Windmill Point
DR029	F-1/2(F-E)	F=903-4052	St. Clair Shores
DR030	F		

Note 1: Provided time series data are tabulated in metric units (meters), relative to International Great Lakes Datum of 1985 (IGLD 85) and on Greenwich Mean Time.

Thomas N. Meo 2/14/01

CHIEF, REQUIREMENTS AND DEVELOPMENT DIVISION

Final water level zone node point locations for OPR-W408-NRT1-2000, Sheet D00133.

Format: Longitude in decimal degrees (negative value denotes Longitude West),
Latitude in decimal degrees
Water Level Station
Water Level Correction Equation

	Station #	Equation
Zone LE001		
-83.109418 42.073829	A = 906-3090	A
-83.122717 42.076446		
-83.126159 42.079162		
-83.14465 42.080504		
-83.171948 42.077565		
-83.195902 42.076616		
-83.237608 41.998306		
-83.139502 41.985531		
-83.045165 42.037493		
-83.109418 42.073829		
-83.109418 42.073829		
Zone DR001		
-83.109418 42.073829	A=906-3090	B - 1/2(B-A)
-83.10728 42.079089	B=904-4020	
-83.120579 42.081705		
-83.126257 42.084681		
-83.144747 42.086023		
-83.156495 42.08768		
-83.166321 42.088769		
-83.187637 42.087907		
-83.195902 42.076616		
-83.171948 42.077565		
-83.14465 42.080504		
-83.126159 42.079162		
-83.122717 42.076446		
-83.109418 42.073829		
Zone DR002		
-83.1631 42.095884	B=904-4020	B
-83.171263 42.097472		
-83.189948 42.096719		

-83.187637 42.087907
-83.166321 42.088769
-83.144747 42.086023
-83.126257 42.084681
-83.120579 42.081705
-83.10728 42.079089
-83.106005 42.084511
-83.119304 42.087127
-83.121678 42.089936
-83.126275 42.090206
-83.144766 42.091548
-83.1631 42.095884

Zone DR003

-83.1631 42.095884	B=904-4020	C - 11/12 (C-B)
-83.144766 42.091548	C=906-4030	
-83.126275 42.090206		
-83.121678 42.089936		
-83.119304 42.087127		
-83.106005 42.084511		
-83.108772 42.092143		
-83.119383 42.091761		
-83.121403 42.095474		
-83.125082 42.095629		
-83.143572 42.09697		
-83.157596 42.099473		
-83.1631 42.095884		

Zone DR004

-83.157596 42.099473	B=904-4020	C - 5/6 (C-B)
-83.143572 42.09697	C=906-4030	
-83.125082 42.095629		
-83.121403 42.095474		
-83.119383 42.091761		
-83.108772 42.092143		
-83.10816 42.097664		
-83.118771 42.097282		
-83.124864 42.101106		
-83.143354 42.102447		
-83.155669 42.104396		
-83.157596 42.099473		

Zone DR005

-83.155669 42.104396	B=904-4020	C - 3/4 (C-B)
-83.143354 42.102447	C=906-4030	

-83.124864 42.101106
-83.118771 42.097282
-83.10816 42.097664
-83.109019 42.103121
-83.11963 42.102739
-83.121128 42.104806
-83.12553 42.106668
-83.14402 42.10801
-83.154155 42.109421
-83.155669 42.104396

Zone DR006

-83.154155 42.109421	B=904-4020	C - 2/3 (C-B)
-83.14402 42.10801	C=906-4030	
-83.12553 42.106668		
-83.121128 42.104806		
-83.11963 42.102739		
-83.109019 42.103121		
-83.10973 42.108139		
-83.120228 42.108457		
-83.124984 42.112136		
-83.149485 42.11378		
-83.154155 42.109421		

Zone DR007

-83.149485 42.11378	B=904-4020	C - 7/12 (C-B)
-83.124984 42.112136	C=906-4030	
-83.120228 42.108457		
-83.10973 42.108139		
-83.10748 42.113553		
-83.117978 42.113871		
-83.117962 42.116805		
-83.12378 42.117557		
-83.142271 42.118898		
-83.146724 42.119163		
-83.149485 42.11378		

Zone DR008

-83.146724 42.119163	B=904-4020	C - 1/2 (C-B)
-83.142271 42.118898	C=906-4030	
-83.12378 42.117557		
-83.117962 42.116805		
-83.117978 42.113871		
-83.10748 42.113553		
-83.107107 42.119024		

-83.117605 42.119342
-83.117825 42.121933
-83.121401 42.122907
-83.145666 42.124654
-83.146724 42.119163

Zone DR009

-83.145666 42.124654	B=904-4020	C - 5/12 (C-B)
-83.121401 42.122907	C=906-4030	
-83.117825 42.121933		
-83.117605 42.119342		
-83.107107 42.119024		
-83.109515 42.126011		
-83.118508 42.123886		
-83.121168 42.12838		
-83.139658 42.129721		
-83.142733 42.129829		
-83.145666 42.124654		

Zone DR010

-83.142733 42.129829	B=904-4020	C - 1/3 (C-B)
-83.139658 42.129721	C=906-4030	
-83.121168 42.12838		
-83.118508 42.123886		
-83.109515 42.126011		
-83.111393 42.131313		
-83.120386 42.129188		
-83.121816 42.129829		
-83.122147 42.133966		
-83.140637 42.135306		
-83.142733 42.129829		

Zone DR011

-83.140637 42.135306	B=904-4020	C - 1/4 (C-B)
-83.122147 42.133966	C=906-4030	
-83.121816 42.129829		
-83.120386 42.129188		
-83.111393 42.131313		
-83.108192 42.144597		
-83.141632 42.137008		
-83.140637 42.135306		

Zone DR012

-83.141632 42.137008	B=904-4020	C - 1/6 (C-B)
-83.108192 42.144597	C=906-4030	

-83.094155 42.165518
-83.094552 42.169193
-83.142412 42.158329
-83.141632 42.137008

Zone DR013

-83.142412 42.158329	B=904-4020	C - 1/12 (C-B)
-83.094552 42.169193	C=906-4030	
-83.09443 42.179157		
-83.09737 42.179061		
-83.145951 42.18134		
-83.146999 42.168286		
-83.142412 42.158329		

Zone DR014

-83.145951 42.18134	C=906-4030	C
-83.09737 42.179061		
-83.09443 42.179157		
-83.09713 42.199666		
-83.137605 42.201542		
-83.14248 42.201394		
-83.153667 42.204268		
-83.154711 42.188336		
-83.146927 42.184892		
-83.145951 42.18134		

Zone DR015

-83.153667 42.204268	C=906-4030	D - 4/5 (D-C)
-83.14248 42.201394	D=904-4036	
-83.137605 42.201542		
-83.09713 42.199666		
-83.096749 42.218249		
-83.134502 42.220393		
-83.142887 42.217817		
-83.149339 42.216075		
-83.153667 42.204268		

Zone DR016

-83.149339 42.216075	C=906-4030	D - 3/5 (D-C)
-83.142887 42.217817	D=904-4036	
-83.134502 42.220393		
-83.096749 42.218249		
-83.102667 42.240539		
-83.124877 42.237056		
-83.129386 42.239221		

-83.131833 42.241634
-83.137252 42.246216
-83.155119 42.235765
-83.149339 42.216075

Zone DR017

-83.137252 42.246216	C=906-4030	D - 2/5 (D-C)
-83.131833 42.241634	D=904-4036	
-83.129386 42.239221		
-83.124877 42.237056		
-83.102667 42.240539		
-83.097733 42.264173		
-83.101361 42.265337		
-83.114777 42.27029		
-83.129714 42.262307		
-83.137252 42.246216		

Zone DR018

-83.114777 42.27029	C=906-4030	D - 1/5 (D-C)
-83.101361 42.265337	D=904-4036	
-83.097733 42.264173		
-83.083644 42.294276		
-83.095186 42.300039		
-83.10021 42.302527		
-83.161407 42.306709		
-83.178774 42.293426		
-83.114777 42.27029		

Zone DR019

-83.10021 42.302527	D=904-4036	D
-83.095186 42.300039		
-83.083644 42.294276		
-83.074313 42.306478		
-83.082602 42.31433		
-83.10021 42.302527		

Zone DR020

-83.082602 42.31433	D=904-4036	E - 8/9 (E-D)
-83.074313 42.306478	E=904-4049	
-83.058623 42.314606		
-83.062871 42.323505		
-83.082602 42.31433		

Zone DR021

-83.062871 42.323505	D=904-4036	E - 7/9 (E-D)

-83.058623 42.314606	E=904-4049	
-83.038453 42.319308		
-83.042701 42.328207		
-83.062871 42.323505		

Zone DR022

-83.042701 42.328207	D=904-4036	E - 2/3 (E-D)
-83.038453 42.319308	E=904-4049	
-83.01764 42.323244		
-83.018731 42.324977		
-83.022979 42.333875		
-83.024108 42.33596		
-83.042701 42.328207		

Zone DR023

-83.024108 42.33596	D=904-4036	E - 5/9 (E-D)
-83.022979 42.33387	E=904-4049	
-83.018731 42.324977		
-83.01764 42.323244		
-82.998993 42.325288		
-83.000174 42.334679		
-83.009837 42.342514		
-83.024108 42.33596		

Zone DR024

-83.009837 42.342514	D=904-4036	E - 4/9 (E-D)
-83.000174 42.334679	E=904-4049	
-82.998993 42.325288		
-82.977456 42.326834		
-82.977858 42.329386		
-82.980114 42.338137		
-82.992031 42.355183		
-83.009837 42.342514		

Zone DR025

-82.992031 42.355183	D=904-4036	E - 1/3 (E-D)
-82.980114 42.338137	E=904-4049	
-82.977858 42.329386		
-82.977456 42.326834		
-82.950273 42.331393		
-82.967871 42.344163		
-82.975839 42.358464		
-82.992031 42.355183		

Zone DR026

-82.975839 42.358464	D=904-4036	E - 2/9 (E-D)
-82.967871 42.344163	E=904-4049	
-82.950273 42.331393		
-82.940158 42.340527		
-82.942493 42.347641		
-82.947678 42.351299		
-82.948121 42.358332		
-82.975839 42.358464		

Zone DR027

-82.948121 42.358332	D=904-4036	E - 1/9 (E-D)
-82.947678 42.351299	E=904-4049	
-82.942493 42.347642		
-82.940158 42.340527		
-82.914291 42.3335		
-82.916115 42.336623		
-82.923405 42.346646		
-82.930929 42.359712		
-82.933419 42.363548		
-82.948121 42.358332		

Zone DR028

-82.933419 42.363548	E=904-4049	E
-82.930929 42.359712		
-82.923405 42.346646		
-82.916115 42.336623		
-82.914291 42.3335		
-82.896086 42.329293		
-82.899915 42.335005		
-82.911159 42.350949		
-82.917579 42.361933		
-82.921533 42.372664		
-82.92303 42.377139		
-82.933419 42.363548		

Zone DR029

-82.92303 42.377139	E=904-4049	F - 1/2 (F-E)
-82.921533 42.372664	F=903-4052	
-82.917577 42.361933		
-82.911159 42.350949		
-82.899915 42.335005		
-82.896086 42.329293		
-82.873106 42.324338		
-82.897998 42.356272		
-82.907649 42.372287		

-82.909582 42.38239
-82.92303 42.377139

Zone LSC01

-82.909582 42.38239	F=903-4052	F
-82.907649 42.372287		
-82.897998 42.356272		
-82.873106 42.324338		
-82.749159 42.289256		
-82.575309 42.300863		
-82.898323 42.474931		
-82.909582 42.38239		

Zone DR103

-83.189948 42.096719	B=904-4020	C - 11/12 (C-B)
-83.171263 42.097472	C=906-4030	
-83.172333 42.103767		
-83.192421 42.10848		
-83.194281 42.100411		
-83.189948 42.096719		

Zone DR104

-83.192421 42.10848	B=904-4020	C - 5/6 (C-B)
-83.172333 42.103767	C=906-4030	
-83.170226 42.112599		
-83.190313 42.117312		
-83.192421 42.10848		
-83.192421 42.10848		
-83.192421 42.10848		

Zone DR105

-83.190313 42.117312	B=904-4020	C - 3/4 (C-B)
-83.170226 42.112599	C=906-4030	
-83.171508 42.122618		
-83.184345 42.124105		
-83.190313 42.117312		

Zone DR106

-83.182871 42.128446	B=904-4020	C - 2/3 (C-B)
-83.184345 42.124105	C=906-4030	
-83.171508 42.122618		
-83.170034 42.126959		
-83.182871 42.128446		

Zone DR107

-83.181755 42.134428	B=904-4020	C - 7/12 (C-B)
-83.182871 42.128446	C=906-4030	
-83.170034 42.126959		
-83.168917 42.132941		
-83.181755 42.134428		

Zone DR108

-83.181755 42.134428	B=904-4020	C - 1/2 (C-B)
-83.168917 42.132941	C=906-4030	
-83.166387 42.141259		
-83.179224 42.142746		
-83.181755 42.134428		

Zone DR109

-83.179224 42.142746	B=904-4020	C - 5/12 (C-B)
-83.166387 42.141259	C=906-4030	
-83.164857 42.14779		
-83.166567 42.148331		
-83.173499 42.150309		
-83.175778 42.150848		
-83.179224 42.142746		

Zone DR110

-83.175778 42.150848	B=904-4020	C - 1/3 (C-B)
-83.173499 42.150309	C=906-4030	
-83.166567 42.148331		
-83.164857 42.14779		
-83.160614 42.155824		
-83.161599 42.15601		
-83.168652 42.158023		
-83.171118 42.158675		
-83.175778 42.150848		

Zone DR111

-83.171118 42.158675	B=904-4020	C - 1/4 (C-B)
-83.168652 42.158023	C=906-4030	
-83.161599 42.15601		
-83.160614 42.155824		
-83.158575 42.164998		
-83.166554 42.165021		
-83.168474 42.164948		
-83.171118 42.158675		

Zone DR112

-83.168474 42.164948	B=904-4020	C - 1/6 (C-B)

-83.166554 42.165021 C=906-4030
-83.158575 42.164998
-83.156263 42.170524
-83.166396 42.175005
-83.168474 42.164948

Zone DR113
-83.166396 42.175005 B=904-4020 C - 1/12 (C-B)
-83.156263 42.170524 C=906-4030
-83.145951 42.18134
-83.146927 42.184892
-83.154711 42.188336
-83.166396 42.175005

NOAA FORM 76-155
(11-72)

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

GEOGRAPHIC NAMES

SURVEY NUMBER

D00133

Name on Survey	A PN CHART NO 14854	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	
ASKINS POINT	X									1
BABY CREEK	X		X							2
BELANGER PARK	X									3
BELLE ISLE	X		X							4
BLUE HERON LAGOON	X									5
CANADA	X									6
CHENE PARK	X		X							7
CONNERS CREEK	X		X							8
COVENTRY GARDEN										9
PARK	X									10
DEARBORN (ppl)	X		X							11
DETROIT (ppl)	X		X							12
DETROIT RIVER (title)	X		X							13
DIEPPE PARK	X									14
ECORSE (ppl)	X		X							15
ECORSE CHANNEL	X		X							16
ECORSE RIVER	X		X							17
ERMA HENDERSON										18
PARK	X									19
FIGHTING ISLAND	X									20
FIGHTING ISLAND										21
CHANNEL	X		X							22
FLEMING CHANNEL	X		X							23
FORDSON ISLAND	X		X							24
FORT WAYNE	X		X							25

NOAA FORM 76-155
(11-72)

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

SURVEY NUMBER

D00133

GEOGRAPHIC NAMES

Page 2 of 3

Name on Survey	A ON SHEET 14848, 14854	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	
GRASSY ISLAND (Canada)	X		X							1
GRASSY ISLAND	X		X							2
GROSSE POINTE PARK	X		X							3
JOHN DINGELL PARK	X									4
LAKE MUSKODAY	X									5
LAKE TACOMA	X									6
LA SALLE	X									7
LITTLE RIVER	X		X							8
MICHIGAN (title)	X		X							9
MUD ISLAND	X		X							10
OLD CHANNEL	X									11
PECHE ISLAND										12
PROVINCIAL PARK	X									13
PORT LAGOON	X									14
RICKS COVE			X							15
RIVER ROUGE	X		X							16
SCOTT MIDDLE										17
GROUND	X		X							18
SHORT CUT CANAL 21	X		X							19
SOUTH BRANCH										20
ECORSE RIVER	X		X							21
STARBOARD LAGOON	X									22
TURKEY CREEK	X									23
UNITED STATES	X									24
WINDSOR	X									25

NOAA FORM 76-155 SUPERSEDES C&GS 197

NOAA FORM 76-155
(11-72)

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

GEOGRAPHIC NAMES

SURVEY NUMBER

D00133

Name on Survey

Name on Survey	A ON CHART NO 14848, 14854	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	
ZUG ISLAND	X		X							1
										2
										3
										4
										5
										6
										7
										8
										9
										10
										11
										12
										13
										14
										15
		Approved:								16
		Chief Geographer				NOV 30 2001				17
										18
										19
										20
										21
										22
										23
										24
										25

NOAA FORM 76-155 SUPERSEDES C&GS 197

NOAA FORM 61-29
(12-71)

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

REFERENCE NO.
N/CS33-3-06

LETTER TRANSMITTING DATA

DATA AS LISTED BELOW WERE FORWARDED TO YOU BY (Check)

- [ ] ORDINARY MAIL
- [ ] AIR MAIL
- [ ] REGISTERED MAIL
- [X] EXPRESS
- [ ] GBL (Give number)_____

TO:

CHIEF, DATA ACQUISITION AND CONTROL
NOAA, NOS, OCS, HSD
1315 EAST-WEST HIGHWAY
SSMC3, STATION 6704,
SILVER SPRING, MARYLAND 20910-3282

DATE FORWARDED
01/20/2006

NUMBER OF PACKAGES
1

NOTE: A separate transmittal letter is to be used for each type of data, as tidal data, seismology, geomagnetism, etc. State the number of packages and include an executed copy of the transmittal letter in each package. In addition the original and one copy of the letter should be sent under separate cover. The copy will be returned as a receipt. This form should not be used for correspondence or transmitting accounting documents.

D00133

MICHIGAN, DETROIT RIVER, NORTHERN PORTION, LAKE SINCLAIR TO 1 MILE N. OF FIGHTING ISLAND

ONE TUBE CONTAINING THE FOLLOWING:

1 SMOOTH SHEET PLOT FOR SURVEY D00133
1 ORIGINAL DR FOR SURVEY D00133
5 MYLAR H-DRAWING PLOTS FOR NOS CHART 14853
1 MYLAR H-DRAWING PLOT FOR NOS CHART 14854
1 RECORD OF APPLICATION TO CHART FORM FOR SURVEY D00133

FROM: (Signature)
Deborah A. Blood

RECEIVED THE ABOVE
(Name, Division, Date)

Return receipted copy to:

NOAA \ NATIONAL OCEAN SERVICE
ATLANTIC HYDROGRAPHIC BRANCH N/CS33
439 WEST YORK STREET
NORFOLK, VA. 23510-1114

NOAA FORM 61-29 SUPERCEDES FORM C AND GS 413 WHICH MAY BE USED.

☆ U.S. GOVERNMENT PRINTING OFFICE: 1988 - 554-006-61309

ATLANTIC HYDROGRAPHIC BRANCH
EVALUATION REPORT FOR D00133 (2000)

This Evaluation Report has been written to supplement and/or clarify the original Descriptive Report. Sections in this report refer to the corresponding sections of the Descriptive Report.

B. AUTOMATED DATA ACQUISITION AND PROCESSING

The following software was used to process data at the Atlantic Hydrographic Branch:

Hydrographic Processing System (HPS)
NADCON, version 2.10
SiteWorks 02.01
MicroStation J, version 07.01.04.16
I/RAS B, version 07.01.000.18

The smooth sheet was plotted using an HEWLETT-PACKARD 2500CP plotter.

C. CONTROL STATIONS

Horizontal control used for this survey during data acquisition is based upon the North American Datum of 1983 (NAD 83). Office processing of this survey is based on these values.

D1. COMPARISON WITH CHART 14853 (15th Edition, MAY 2004) 14854 (14th Edition, MARCH 2004)

Hydrography

The charted hydrography originates with prior survey and miscellaneous sources. The hydrographer makes adequate chart comparisons in Sections D1. of the Descriptive Report. The following should be noted:

1. A charted **dangerous sunken wreck PA**, in the vicinity of Latitude 42°17'30"N, Longitude 83°08'35"W, on NOS charts 14854 and 14853, originates with an unknown source and was not disproved by the present survey. It is recommended that this feature be retained as charted.

2. A charted **sunken wreck**, in the vicinity of Latitude 42°17'24"N, Longitude 83°07'01"W, on NOS charts 14854 and

14853, originates with an unknown source and was not investigated by the hydrographer. It is recommended that this feature be retained as charted.

3. Charted **piles**, in the vicinity of Latitude 42°17'45.17"N, Longitude 83°09'12.53"W, on NOS chart 14854, originate with an unknown source and were not investigated by the hydrographer. It is recommended that these **piles** be retained as charted.

4. A charted **obstruction rep, PA**, in the vicinity of Latitude 42°15'24.02"N, Longitude 83°06'42.07"W, on NOS chart 14853 sheet 10, originates with an unknown source and was not investigated by the hydrographer. It is recommended that this **obstruction rep, PA** be retained as charted.

5. Two charted **piles** in the vicinity of Latitude 42°16'05.32"N, Longitude 83°06'09.37"W, on NOS chart 14853 sheet 10, originate with an unknown source and were not investigated by the hydrographer. It is recommended that these **piles** be retained as charted.

6. A charted **dolphin** in the vicinity of Latitude 42°16'06.95"N, Longitude 83°06'08.99"W, on NOS chart 14853 sheet 10, originates with an unknown source and was not investigated by the hydrographer. It is recommended that the **dolphin** be retained as charted.

7. A charted **crib** with a **depth of 35 feet** in the vicinity of Latitude 42°16'35.72"N Longitude 83°06'27.58"W, on NOS chart 14853 sheets 10 and 11, originates with an unknown source and was not investigated by the hydrographer. It is recommended that the **crib** with a **depth of 35 feet** be retained as charted.

8. Charted **dolphins**, in the vicinity of Latitude 42°18'13.15"N, Longitude 83°04'47.45"W, on NOS chart 14853 sheet 11, originate with an unknown source and were not investigated by the hydrographer. It is recommended that these **dolphins** be retained as charted.

9. The northernmost **dolphin** of a group of three dolphins charted in Latitude 42°18'14.14"N, Longitude 83°04'47.92"W, on NOS chart 14853 sheet 11, falls within the limits of NOS chart 14853 sheet 12 but is presently not charted on it. It is recommended that the **dolphin** be brought forward to NOS chart 14853 sheet 12 in the above position.

10. A charted **dangerous sunken wreck PA**, in the vicinity of Latitude 42°19'37.56"N, Longitude 83°02'23.68"W, on NOS chart 14853 sheet 12, originates with an unknown source and is not considered disproved by the present survey. It is recommended that this charted feature be retained as charted.

11. A **Shl rep 1974** note charted in the vicinity of Latitude 42°19'53"N, Longitude 83°01'29"W, on NOS chart 14853 sheet 12, originates with an unknown source and is not considered disproved by the present survey. It is recommended that the note be retained as charted. It is also recommended that the chart be updated in this area with present survey data where possible.

12. Charted **piles** in the vicinity of Latitude 42°19'52.76"N, Longitude 83°01'36.45"W, on NOS chart 14853 sheet 12, originate with an unknown source and were not investigated by the present survey. It is recommended that the **piles** be retained as charted.

13. A charted row of **subm piles** in the vicinity of Latitude 42°19'30.31"N, Longitude 83°02'51.96"W, on NOS chart 14853 sheet 12, originate with an unknown source and were not investigated by the present survey. It is recommended that the row of **subm piles** be retained as charted.

14. Charted rows of **dolphins** in the vicinity of Latitude 42°18'58.07"N, Longitude 83°04'19.87"W, on NOS chart 14853 sheet 12, originate with an unknown source and were not investigated by the present survey. It is recommended that the rows of **dolphins** be retained as charted.

15. Charted **obstructions** in the vicinity of Latitude 42°18'52.98"N, Longitude 83°04'30.11"W, on NOS chart 14853 sheet 12, originate with an unknown source and were not

investigated by the present survey. It is recommended that the **obstructions** be retained as charted.

16. A charted **intake crib** with a **depth of 12 feet** in the vicinity of Latitude 42°16'35.72"N Longitude 83°06'27.58"W, on NOS chart 14853 sheets 12, originates with an unknown source and was not investigated by the hydrographer. It is recommended that the **intake crib** with a **depth of 12 feet** be retained as charted.

17. Numerous charted depths and features were not adequately investigated or disproved by the present survey. They are shown in green on the H-Drawing. It is recommended that the depths and features be retained as charted.

18. A charted row of **dolphins** in the vicinity of Latitude 42°18'59.4"N, Longitude 83°03'24.58"W, on NOS chart 14853 sheet 12, originate with an unknown source and were not investigated by the present survey. It is recommended that the row of **dolphins** be retained as charted.

19. Charted **piles and dolphins** in the vicinity of Latitude 42°19'02.97"N, Longitude 83°03'09.20"W, on NOS chart 14853 sheet 12, originate with an unknown source and were not investigated by the present survey. It is recommended that the **piles and dolphins** be retained as charted.

20. Charted **submerged piles** in the vicinity of Latitude 42°19'06.00"N, Longitude 83°03'55.50"W, on NOS chart 14853 sheet 12, originate with an unknown source and were not investigated by the present survey. It is recommended that the **submerged piles** be retained as charted.

21. The charted **Wk, ED**, in the vicinity of Latitude 42°19'14.15"N, Longitude 83°02'23.77"W, on NOS chart 14853 sheet 12, originates with an unknown source and was not investigated by the present survey. It is recommended that the **Wk, ED** be retained as charted.

22. Charted **dolphins** in the vicinity of Latitude 42°19'14.68"N, Longitude 83°02'19.72"W, on NOS chart 14853 sheet 12, originate with an unknown source and were not

investigated by the present survey. It is recommended that the **dolphins** be retained as charted.

23. Charted **piles** in the vicinity of Latitude 42°19'16.17"N, Longitude 83°02'15.8"W, on NOS chart 14853 sheet 12, originate with an unknown source and were not investigated by the present survey. It is recommended that the **piles** be retained as charted.

24. Charted **piles and dolphins** in the vicinity of Latitude 42°19'19.34"N, Longitude 83°02'01.66"W, on NOS chart 14853 sheet 12, originate with an unknown source and were not investigated by the present survey. It is recommended that the **dolphins and piles** be retained as charted.

25. Charted **piles** in the vicinity of Latitude 42°19'33.89"N, Longitude 83°00'56.64"W, on NOS chart 14853 sheet 12, originate with an unknown source and were not investigated by the present survey. It is recommended that the **piles** be retained as charted.

26. Charted **piles** in the vicinity of Latitude 42°20'01.3"N, Longitude 83°01'15.05"W, on NOS chart 14853 sheet 12, originate with an unknown source and were not investigated by the present survey. It is recommended that the **piles** be retained as charted.

27. A charted **dangerous sunken wreck PA**, in the vicinity of Latitude 42°20'12.39"N, Longitude 83°00'46.57"W, on NOS chart 14853 sheet 13, originates with an unknown source and was not investigated by the present survey. It is not considered disproved by the present survey. It is recommended that this feature be retained as charted.

28. Charted **piles** in the vicinity of Latitude 42°20'18.29"N Longitude 83°00'36.28"W, on NOS chart 14853 sheet 13, originate with an unknown source and were not investigated by the present survey. It is recommended that the **piles** be retained as charted.

29. Charted **piles** in the vicinity of Latitude 42°20'22.13"N Longitude 83°00'30.73"W, on NOS chart 14853 sheet

13, originate with an unknown source and were not investigated by the present survey. It is recommended that the **piles** be retained as charted

30. A charted **pile** in the vicinity of Latitude 42°20'47.17"N, Longitude 82°59'50.03"W, on NOS chart 14853 sheet 13, originates with an unknown source and was not investigated by the present survey. It is recommended that the **pile** be retained as charted.

31. Charted **piles** in the vicinity of Latitude 42°20'50.54"N, Longitude 82°59'45.21"W, on NOS chart 14853 sheet 13, originate with an unknown source and were not investigated by the present survey. It is recommended that the **piles** be retained as charted.

32. Charted **piles** in the vicinity of Latitude 42°20'58.95"N, Longitude 82°59'33.23"W, on NOS chart 14853 sheet 13, originate with an unknown source and were not investigated by the present survey. It is recommended that the **piles** be retained as charted.

33. Charted **piles** in the vicinity of Latitude 42°21'03.13"N, Longitude 82°59'23.81"W, on NOS chart 14853 sheet 13, originate with an unknown source and were not investigated by the present survey. It is recommended that the **piles** be retained as charted.

34. A charted **unknown dangerous obstruction PA**, in the vicinity of Latitude 42°21'19.15"N, Longitude 82°56'45.63"W, on NOS chart 14853 sheets 13 and 14, originates with an unknown source and was not investigated by the present survey. It is not considered disproved by the present survey. It is recommended that this feature be retained as charted.

35. Charted **piles** in the vicinity of Latitude 42°19'59.20"N, Longitude 82°57'57.59"W, on NOS chart 14853 sheet 13, originate with an unknown source and were not investigated by the present survey. It is recommended that the **piles** be retained as charted.

36. Charted **piles** in the vicinity of Latitude 42°19'58.30"N, Longitude 82°58'02.20"W, on NOS chart 14853 sheet 13, originate with an unknown source and were not investigated by the present survey. It is recommended that the **piles** be retained as charted.

37. Charted **piles** in the vicinity of Latitude 42°19'41.23"N, Longitude 82°59'21.72"W, on NOS chart 14853 sheet 13, originate with an unknown source and were not investigated by the present survey. It is recommended that the **piles** be retained as charted.

38. A charted **pile** in the vicinity of Latitude 42°19'38.76"N, Longitude 82°59'50.24"W, on NOS chart 14853 sheet 13, originates with an unknown source and was not investigated by the present survey. It is recommended that the **pile** be retained as charted.

39. A charted **intake pipe** in the vicinity of Latitude 42°19'39.08"N Longitude 82°59'53.66"W, on NOS chart 14853 sheet 13, originates with an unknown source and was not investigated by the hydrographer. It is recommended that the **intake pipe** be retained as charted.

40. A charted **sewer intake crib** with a **depth of 19 feet** in the vicinity of Latitude 42°19'38.69"N Longitude 83°00'36.59"W, on NOS chart 14853 sheet 13, originates with an unknown source and was not investigated by the hydrographer. It is recommended that the **sewer intake crib** with a **depth of 19 feet** be retained as charted.

41. A charted note **25 FEET FOR WIDTH OF 800-1200 FEET NOV 1996 - OCT 2002** in Fleming Channel in the vicinity of Latitude 42°20'52.27"N Longitude 82°56'48.32"W, on NOS chart 14853 sheets 13 and 14, originates with an unknown source. This item was not thoroughly investigated by the hydrographer. The charted information is subsequent to the present survey. It is therefore recommended that the **note** be retained as charted.

42. The charted **pile** in the vicinity of Latitude 42°20'21.43"N, Longitude 82°57'43.77"W, on NOS chart 14853

sheet 13, originates with an unknown source and was not investigated by the present survey. It is recommended that the **pile** be retained as charted.

43. A charted note **20½ FEET FOR WIDTH OF 200 FEET NOV 1996** in Fleming Channel in the vicinity of Latitude 42°21'10.22"N Longitude 82°56'46.26"W, on NOS charts 14853 sheets 13 and 14, originates with an unknown source. This item was not thoroughly investigated by the hydrographer and present survey depths in the area are 21-24 feet. It is recommended that the **note** be retained as charted.

44. A charted **obstruction PA**, in the vicinity of Latitude 42°21'06.23"N, Longitude 82°54'59.73"W, on NOS chart 14853 sheet 14, originates with an unknown source and was not investigated by the hydrographer. It is not considered disproved by the present survey. It is recommended that the **obstruction PA** be retained as charted.

45. A charted **obstruction PA**, in the vicinity of Latitude 42°21'29.17"N, Longitude 82°54'58.84"W, on NOS chart 14853 sheet 14, originates with an unknown source and was not investigated by the hydrographer. It is not considered disproved by the present survey. It is recommended that the **obstruction PA** be retained as charted.

46. Charted **obstructions**, in the vicinity of Latitude 42°21'45.14"N, Longitude 82°55'26.89"W, on NOS chart 14853 sheet 14, originate with an unknown source and were not investigated by the hydrographer. It is not considered disproved by the present survey. It is recommended that the **obstructions** be retained as charted.

47. Charted **piles**, in the vicinity of Latitude 42°21'42.75"N, Longitude 82°55'29.25"W, on NOS chart 14853 sheet 14, originate with an unknown source and were not investigated by the hydrographer. It is not considered disproved by the present survey. It is recommended that the **obstructions** be retained as charted.

48. A charted **pile**, in the vicinity of Latitude 42°21'25.33"N, Longitude 82°55'56.19"W, on NOS chart 14853 sheet 14, originates with an unknown source and was not

investigated by the hydrographer. It is not considered disproved by the present survey. It is recommended that the **pile** be retained as charted.

49. A charted **pile**, in the vicinity of Latitude 42°20'45.35"N, Longitude 82°56'12.44"W, on NOS chart 14853 sheet 14, originates with an unknown source and was not investigated by the hydrographer. It is not considered disproved by the present survey. It is recommended that the **pile** be retained as charted.

50. A charted **crib** with a **depth of 16 feet** in the vicinity of Latitude 42°20'24.5"N Longitude 82°55'32.9"W, on NOS chart 14853 sheet 14, originates with an unknown source and was not investigated by the hydrographer. It is recommended that the **crib** with a **depth of 16 feet** be retained as charted.

51. The charted **pile**, in the vicinity of Latitude 42°20'22.4"N, Longitude 82°55'33.6"W, on NOS chart 14853 sheet 14, originates with an unknown source and was not investigated by the hydrographer. It is not considered disproved by the present survey. It is recommended that the **pile** be retained as charted.

52. The charted **dangerous rock awash**, in the vicinity of Latitude 42°21'00.19"N, Longitude 82°54'51.43"W, on NOS chart 14853 sheet 14, originates with an unknown source and was not investigated by the hydrographer. It is not considered disproved by the present survey. It is recommended that the **dangerous rock awash** be retained as charted.

53. The charted **dangerous rock awash**, in the vicinity of Latitude 42°21'03.05"N, Longitude 82°55'02.00"W, on NOS chart 14853 sheet 14, originates with an unknown source and was not investigated by the hydrographer. It is not considered disproved by the present survey. It is recommended that the **dangerous rock awash** be retained as charted.

54. The charted **dangerous rock awash**, in the vicinity of Latitude 42°21'03.03"N, Longitude 82°55'07.07"W, on NOS chart 14853 sheet 14, originates with an unknown source and was not investigated by the hydrographer. It is not considered

disproved by the present survey. It is recommended that the **dangerous rock awash** be retained as charted.

55. A charted note **25 FEET FOR WIDTH OF 800-1200 FEET NOV 1996 - OCT 2002** in Fleming Channel in the vicinity of Latitude 42°21'24.07"N Longitude 82°55'28.17"W, on NOS charts 14853 sheets 13 and 14, originates with an unknown source. This item was not thoroughly investigated by the hydrographer. The charted information is subsequent to the present survey. It is therefore recommended that the **note** be retained as charted.

56. Three (3) charted **shoals**, in the vicinity of Latitude 42°09'20.00"N, Longitude 83°06'50.00"W, on NOS chart 14853 sheet 8, originate with an unknown source and were disproved by the present survey. Present survey depths in the area are 2-3 feet. It is recommended that the three **shoals** be deleted and present survey depths charted.

Except as mentioned above, the present survey is adequate to supersede the charted hydrography within the common area.

D2. ADDITIONAL RESULTS

1. Brown shoreline originates with National Ocean Service (NOS) chart 14853 (12th Edition, February 6, 1999) and is for orientation purposes only.

a. On NOS chart 14854 (14th Edition, MARCH/04), along the western edge of Old Channel between Latitude 42°16'58.5"N, Longitude 83°07'10.1"W and Latitude 42°17'22.7"N, Longitude 83°07'08.28"W the shoreline has moved to the west and the present survey soundings are plotting on charted land. The shoreline in shown as a dashed red line on the H-drawing. It is recommended that this area be deferred to Marine Chart Division (MCD), Source Data Group for review and charting recommendation.

b. On NOS chart 14853 sheet 12 (15th Edition, MAY/04), along the western edge of the survey between Latitude 42°18'26.75"N, Longitude 83°05'04.57"W and Latitude 42°19'16.31"N, Longitude 83°03'45.99"W, the shoreline has moved to the west and present survey soundings are plotting on

charted land. It is recommended that this area be deferred to MCD Source Data Group for review and charting recommendation.

2. A comparison with prior surveys was not performed. This is in accordance with section 4. of the memorandum titled, Changes to Hydrographic Survey Processing, dated May 24, 1995.

3. Four floating aids to navigation are being shown on the smooth sheet; the positions were scanned from the survey records and inserted into the digital file during office verification. These aids appear adequate to serve their intended purposes. No changes in charting are recommended.

4. CONTROLLING DEPTHS

River Rouge Channel (NOS Charts 14854 and 14853)

a. No conflicts exist between the charted tabulated depths and the present survey soundings in the River Rouge Channel from the Short Cut Can 21 Entrance to West Jefferson Ave. Bridge. No changes to charting are recommended.

b. No conflicts exist between the charted tabulated depths and the present survey soundings in the River Rouge Channel from the West Jefferson Ave. Bridge to the I-75 Bridge. No changes to charting are recommended.

c. No conflicts exist between the charted tabulated depths and the present survey soundings in the River Rouge Channel from the I-75 Bridge to the Dix Ave. Bridge. No changes to charting are recommended.

d. Two conflicts exist between the charted tabulated depths and the present survey soundings in the River Rouge Channel from the Dix Ave. Bridge to the end. In the vicinity of Latitude 42°17'48.67"N, Longitude 83°09'05.94"N, the tabulated right outside quarter depth is 16.6 feet and the present survey found a 12 foot depth. In the vicinity of Latitude 42°17'48.96"N, Longitude 83°09'18.75"N, the tabulated middle half of channel depth is 19.9 feet and the present survey found a 12 foot depth. It is recommended that this area

be deferred to MCD Source Data Group for review and charting recommendation.

Old Channel (NOS Charts 14854 and 14853)

a. No present survey data was collected in Old Channel from the entrance to Latitude 42°17'19.9"N, Longitude 83°06'27.5"N. No change in charting is recommended.

b. No conflicts exist between the charted tabulated depths and the present survey soundings in Old Channel from Latitude 42°17'19.9"N, Longitude 83°06'27.5"N to Latitude 42°17'23.2"N, Longitude 83°06'46.0"N. No change in charting is recommended.

c. No conflicts exist between the charted tabulated depths and the present survey soundings in Old Channel from Latitude 42°17'23.2"N, Longitude 83°06'46.0"N to the RR Swing Bridge. No change in charting is recommended.

d. No conflicts exist between the charted tabulated depths and the present survey soundings in Old Channel from the RR Swing Bridge to Short Cut Canal 21. No change in charting is recommended.

Fleming Channel (NOS Chart 14853)

No conflicts exist between the charted tabulated depths and the present survey soundings in Fleming Channel. No change in charting is recommended.

JUNCTIONS

D00132 (20003) to the south

A standard junction was effected between D00133(2000)and the present survey to the south. There are no contemporary surveys to the east or northeast of the present survey.

Present survey depths are in harmony to the east or northeast with the charted hydrography.

ADEQUACY OF SURVEY

This is an adequate hydrographic survey. No additional work is recommended.

MISCELLANEOUS

Chart compilation using the present survey was done by Atlantic Hydrographic Branch personnel in Norfolk, Virginia. Compilation data has been forwarded to Marine Chart Division, Silver Spring, Maryland. The following NOS charts were used for compilation of the present survey:

14853 (15th Edition, MAY/04)	**1:15,000 SCALE**
14854 (14th Edition, MARCH/04)	**1:10,000 SCALE**

D00133

Douglas V. Mason
Cartographic Technician
Verification of Field Data
Evaluation and Analysis

APPROVAL SHEET
D00133

Initial Approvals:

The completed survey has been inspected with regard to survey coverage, delineation of depth curves, development of critical depths, cartographic symbolization, and verification or disapproval 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 digital data for this survey. The survey records and digital data comply with NOS requirements except where noted in the Evaluation Report.

Deborah A Bland

Date: 1/10/2006

Deborah A. Bland
Cartographer,
Atlantic Hydrographic Branch

I have reviewed the smooth sheet, accompanying data, and reports. This survey and accompanying digital data meet or exceed NOS requirements and standards for products in support of nautical charting except where noted in the Evaluation Report.

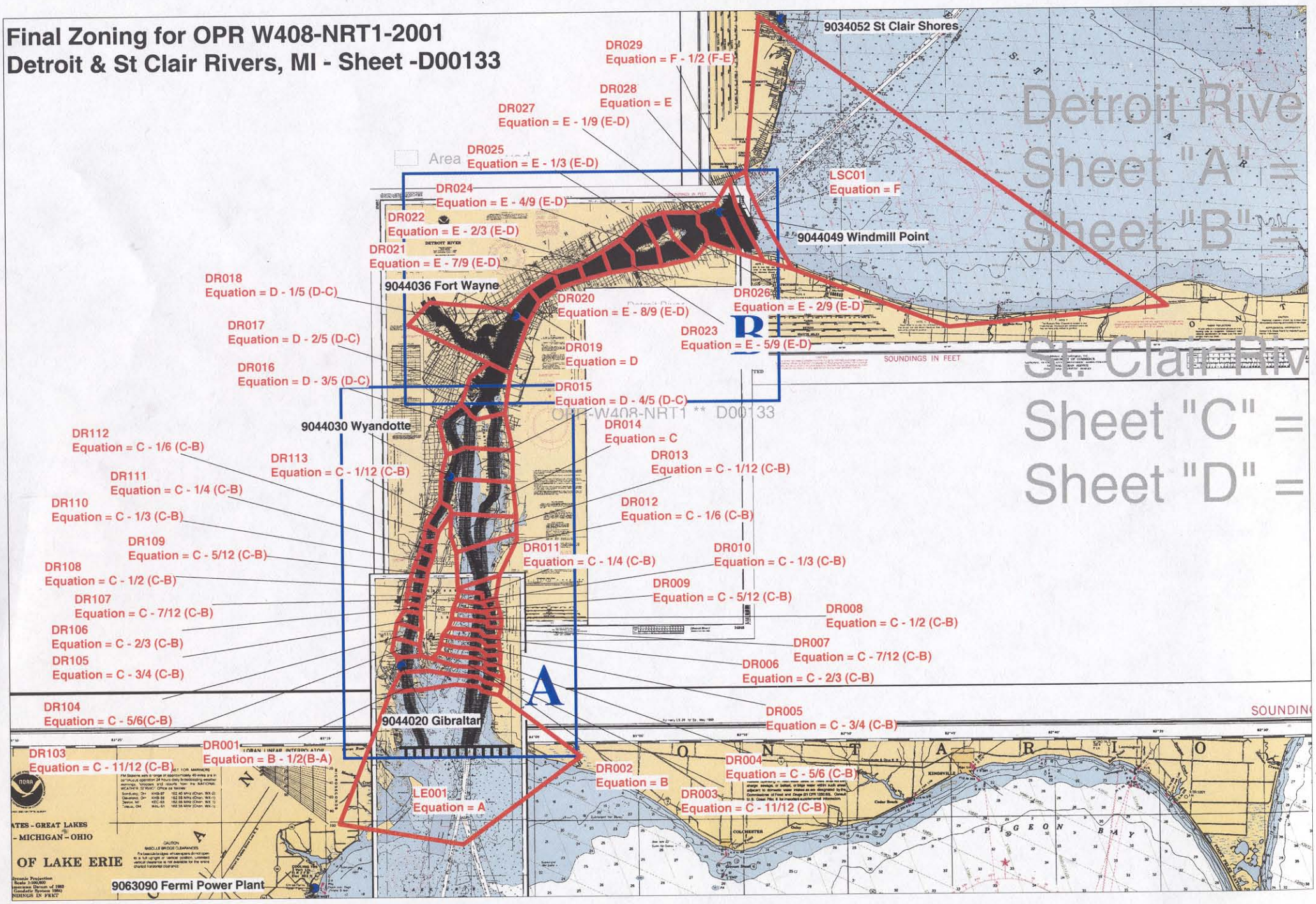
P Schattgen

Date: 1/10/2006

P. Tod Schattgen
Lieutenant Commander, NOAA
Chief, Atlantic Hydrographic Branch

Michael Riddle
AWOIS & SURF check
Operations Branch N/CS31
2006.01.30 13:38:53 -05'00'

Final Zoning for OPR W408-NRT1-2001
Detroit & St Clair Rivers, MI - Sheet -D00133



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. D00133

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	July 05	D. A. Blair	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No.
14854	July05	D. A. Blair	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.