

TP-00897

TP-00897

00897

NOAA FORM 76-35

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

DESCRIPTIVE REPORT

THIS MAP EDITION WILL NOT BE FIELD EDITED

Type of Survey SHORELINE
Job No. CM-8001 Map No. TP-00897
Classification No. III Edition No. 1

LOCALITY

State MICHIGAN
General Locality SAGINAW RIVER
Locality BAY CITY
.....

19 TO 1980

REGISTRY IN ARCHIVES

DATE

MAP NOT INSPECTED BY
QUALITY CONTROL OF PHOTOGRAMMETRY BRANCH
PRIOR TO REGISTRATION

| | | | |
|---|--|---|-------------|
| NOAA FORM 76-36A (3-72) | | U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMIN. | |
| DESCRIPTIVE REPORT - DATA RECORD | | TYPE OF SURVEY <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> RESURVEY <input type="checkbox"/> REVISED | |
| PHOTOGRAMMETRIC OFFICE Branch Rockville, Md. | | SURVEY TP-00897 MAP EDITION NO. (1) MAP CLASS III JOB X-8001 | |
| OFFICER-IN-CHARGE Lawrence Fritz | | LAST PRECEDING MAP EDITION TYPE OF SURVEY <input type="checkbox"/> ORIGINAL <input type="checkbox"/> RESURVEY <input type="checkbox"/> REVISED JOB PH- MAP CLASS SURVEY DATES: 19__ TO 19__ | |
| I. INSTRUCTIONS DATED | | | |
| 1. OFFICE | | 2. FIELD | |
| OFFICE JULY 25, 1983 AEROTRIANGULATION JAN 22, 1982 | | FIELD MARCH 20, 1981 | |
| II. DATUMS | | | |
| 1. HORIZONTAL: <input checked="" type="checkbox"/> 1927 NORTH AMERICAN | | OTHER (Specify) | |
| 2. VERTICAL: <input type="checkbox"/> MEAN HIGH-WATER <input type="checkbox"/> MEAN LOW-WATER <input type="checkbox"/> MEAN LOWER LOW-WATER <input type="checkbox"/> MEAN SEA LEVEL | | OTHER (Specify) INTERNATIONAL GREAT LAKES DATUM 1955 | |
| 3. MAP PROJECTION LAMBERT CONFORMAL CONIC | | 4. GRID(S) STATE MICHIGAN ZONE SOUTH | |
| 5. SCALE 1:20,000 | | STATE ZONE | |
| III. HISTORY OF OFFICE OPERATIONS | | | |
| OPERATIONS | | NAME | DATE |
| 1. AEROTRIANGULATION BY METHOD: Analytic LANDMARKS AND AIDS BY | | R. Johanson | 5/83 |
| 2. CONTROL AND BRIDGE POINTS PLOTTED BY METHOD: Coradomat CHECKED BY | | R. Johanson | 5/83 |
| 3. STEREOSCOPIC INSTRUMENT PLANIMETRY BY COMPILATION CHECKED BY | | B. Thornton | 6/83 |
| INSTRUMENT: Wild B-8 SCALE: 1:20,000 CONTOURS BY CHECKED BY | | C. Heazel | 7/83 |
| 4. MANUSCRIPT DELINEATION PLANIMETRY BY CHECKED BY | | C. Heazel | 7/83 |
| METHOD: Worksheet Delineation SCALE: 1:20,000 CONTOURS BY CHECKED BY | | P. Dempsey | 7/83 |
| 5. OFFICE INSPECTION PRIOR TO FIELD EDIT BY | | N/A | 8/83 |
| 6. APPLICATION OF FIELD EDIT DATA BY | | P. Dempsey | 8/83 |
| 7. COMPILATION SECTION REVIEW BY | | N/A | N/A |
| 8. FINAL REVIEW BY | | N/A | N/A |
| 9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH BY | | J. Schad | 9/83 |
| 10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH BY | | P. Dempsey | 12/83 |
| 11. MAP REGISTERED - COASTAL SURVEY SECTION BY | | E. DAUGHERTY | NOV 1984 |

NOAA FORM 76-36B
(3-72)U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

COMPILATION SOURCES

TP-00897

1. COMPILATION PHOTOGRAPHY

| | | | | | |
|---|---------|---|----------|--|--|
| CAMERA(S) RC-10(Z) Focal Length 153.15mm | | TYPES OF PHOTOGRAPHY LEGEND | | TIME REFERENCE | |
| TIDE STAGE REFERENCE <input type="checkbox"/> PREDICTED TIDES <input checked="" type="checkbox"/> REFERENCE STATION RECORDS <input type="checkbox"/> TIDE CONTROLLED PHOTOGRAPHY | | (C) COLOR (P) PANCHROMATIC (I) INFRARED | | ZONE Eastern MERIDIAN 75th <input type="checkbox"/> STANDARD <input checked="" type="checkbox"/> DAYLIGHT | |
| NUMBER AND TYPE | DATE | TIME | SCALE | WATER XXXXXX LEVEL | |
| 80 ZP 7309 thru 7313 | 6/12/80 | 0920 | 1:50,000 | 2.75 Feet above Lake Huron Low Water Datum | |
| 80 ZP 7288 thru 7297 | 6/11/80 | 1316 | 1:20,000 | | |
| 80 ZP 7256 - 7257 | 6/11/80 | 1250 | 1:20,000 | | |
| 80 ZP 7269 thru 7270 | 6/11/80 | 1300 | 1:20,000 | | |

REMARKS International Great Lakes Datum 1955, Essexville, Michigan water level was 579.55 Feet.

2. SOURCE OF ~~MEAN HIGH WATER LINE~~ Shoreline:

The source of the shoreline is the 1:50,000 scale photographs listed in item 1 above.

3. SOURCE OF MEAN LOW-WATER OR MEAN LOWER LOW-WATER LINE:

N/A

4. CONTEMPORARY HYDROGRAPHIC SURVEYS (List only those surveys that are sources for photogrammetric survey information.)

| SURVEY NUMBER | DATE(S) | SURVEY COPY USED | SURVEY NUMBER | DATE(S) | SURVEY COPY USED |
|---------------|---------|------------------|---------------|---------|------------------|
| | | | | | |

5. FINAL JUNCTIONS

| | | | |
|--------------|-------------|-------------------|-------------|
| NORTH N/A | EAST N/A | SOUTH TP-00898 | WEST N/A |
|--------------|-------------|-------------------|-------------|

REMARKS

HISTORY OF FIELD OPERATIONS

TP-00897

I. ☒ FIELD INSPECTION OPERATION☐ FIELD EDIT OPERATION

| OPERATION | NAME | DATE |
|-------------------------------------|--|---------|
| 1. CHIEF OF FIELD PARTY | J. E. Dunford | 9/15/81 |
| 2. HORIZONTAL CONTROL | RECOVERED BY C. Middleton | 9/15/81 |
| | ESTABLISHED BY C. Middleton | 9/15/81 |
| | PRE-MARKED OR IDENTIFIED BY C. Middleton | 9/15/81 |
| 3. VERTICAL CONTROL | RECOVERED BY N/A | |
| | ESTABLISHED BY N/A | |
| | PRE-MARKED OR IDENTIFIED BY N/A | |
| 4. LANDMARKS AND AIDS TO NAVIGATION | RECOVERED (Triangulation Stations) BY N/A | |
| | LOCATED (Field Methods) BY N/A | |
| | IDENTIFIED BY N/A | |
| 5. GEOGRAPHIC NAMES INVESTIGATION | TYPE OF INVESTIGATION <input type="checkbox"/> COMPLETE <input type="checkbox"/> SPECIFIC NAMES ONLY <input checked="" type="checkbox"/> NO INVESTIGATION | N/A |
| 6. PHOTO INSPECTION | CLARIFICATION OF DETAILS BY N/A | |
| 7. BOUNDARIES AND LIMITS | SURVEYED OR IDENTIFIED BY N/A | |

II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED

Six Sub Stations

2. VERTICAL CONTROL IDENTIFIED

None

| PHOTO NUMBER | STATION NAME | PHOTO NUMBER | STATION DESIGNATION |
|--------------|---|--------------|---------------------|
| 80 ZP 7310 | APPOLD 2, 1960 Sub Pts A & B | | |
| 80 ZP 7311 | BAY CITY EASTERN HIGH SCHOOL DOME, 1932 Sub Pts A & B | | |
| 80 ZP 7313 | BAY CITY WATER SUPPLY STACK, 1932 Sub Pts A & B | | |

3. PHOTO NUMBERS (Clarification of details)

N/A

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

None

| PHOTO NUMBER | OBJECT NAME | PHOTO NUMBER | OBJECT NAME |
|--------------|-------------|--------------|-------------|
| | | | |
| | | | |
| | | | |

5. GEOGRAPHIC NAMES: ☐ REPORT ☒ NONE6. BOUNDARY AND LIMITS: ☐ REPORT ☒ NONE

7. SUPPLEMENTAL MAPS AND PLANS

None

8. OTHER FIELD RECORDS (Sketch books, etc. DO NOT list data submitted to the Geodesy Division)

3 CSI NOAA forms 76-53, 6 NOAA forms 76-86, 9 NOAA forms 76-170, 6 NOAA forms 73-135, 7 NOAA forms 75-63, 3 NOAA forms 75-82A, 4 NOAA forms 75-65. These forms are bound in a brown covered field book labeled CM-8001 Saginaw River, Michigan.

NOAA FORM 76-36D
(3-72)U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

RECORD OF SURVEY USE

TP-00897

I. MANUSCRIPT COPIES

| COMPILATION STAGES | | | DATE MANUSCRIPT FORWARDED | |
|---------------------|------------|-------------------------|---------------------------|---------------|
| DATA COMPILED | DATE | REMARKS | MARINE CHARTS | HYDRO SUPPORT |
| Final Class III map | Aug., 1983 | Chart Maintenance Print | OCT 3 1984 | |
| | | | | |
| | | | | |
| | | | | |

II. LANDMARKS AND AIDS TO NAVIGATION

1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH

| NUMBER | CHART LETTER NUMBER ASSIGNED | DATE FORWARDED | REMARKS |
|--------|---------------------------------|-------------------|---|
| 4 Pgs. | | OCT 3 1984 | Copy of NOAA 76-40 Form, Nonfloating Aids or Landmarks for Charts |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

2. ☐ REPORT TO MARINE CHART DIVISION, COAST PILOT BRANCH. DATE FORWARDED: _____3. ☐ REPORT TO AERONAUTICAL CHART DIVISION, AERONAUTICAL DATA SECTION. DATE FORWARDED: _____

III. FEDERAL RECORDS CENTER DATA

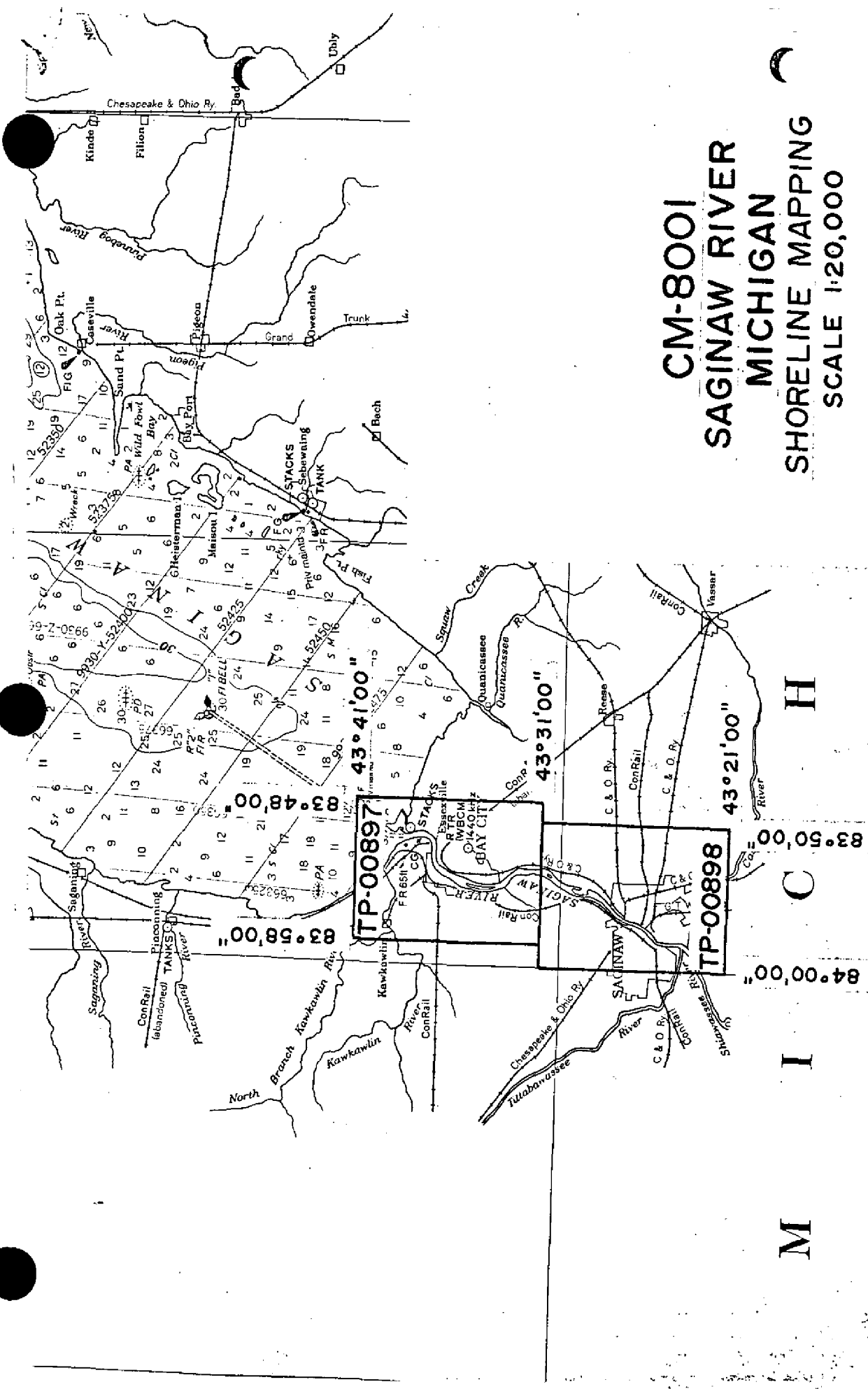
1. ☐ BRIDGING PHOTOGRAPHS; ☒ DUPLICATE BRIDGING REPORT; ☒ COMPUTER READOUTS.
 2. ☒ CONTROL STATION IDENTIFICATION CARDS; ☐ FORM NOS 567 SUBMITTED BY FIELD PARTIES.
 3. ☒ SOURCE DATA (except for Geographic Names Report) AS LISTED IN SECTION II, NOAA FORM 76-36C.
 ACCOUNT FOR EXCEPTIONS:

4. ☐ DATA TO FEDERAL RECORDS CENTER. DATE FORWARDED: _____

IV. SURVEY EDITIONS (This section shall be completed each time a new map edition is registered)

| | | | |
|----------------|---------------------------------|--------------------------|---|
| SECOND EDITION | SURVEY NUMBER TP - _____ (2) | JOB NUMBER PH - _____ | TYPE OF SURVEY <input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY MAP CLASS <input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL |
| | DATE OF PHOTOGRAPHY | DATE OF FIELD EDIT | |
| THIRD EDITION | SURVEY NUMBER TP - _____ (3) | JOB NUMBER PH - _____ | TYPE OF SURVEY <input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY MAP CLASS <input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL |
| | DATE OF PHOTOGRAPHY | DATE OF FIELD EDIT | |
| FOURTH EDITION | SURVEY NUMBER TP - _____ (4) | JOB NUMBER PH - _____ | TYPE OF SURVEY <input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY MAP CLASS <input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL |
| | DATE OF PHOTOGRAPHY | DATE OF FIELD EDIT | |

CM-8001
SAGINAW RIVER
MICHIGAN
SHORELINE MAPPING
SCALE 1:20,000



SUMMARY TO ACCOMPANY DESCRIPTIVE REPORT
TP-00897

This map is one of two 1:20,000 scale manuscripts which comprise project CM-8001. The project covers the shoreline area of the Saginaw River from Saginaw Bay to Saginaw, Michigan. This map was not field edited.

The initial purpose of this project was to provide basic specifications for the compilation of data to be used in the maintenance and reconstruction of nautical charts.

A field investigation was performed, prior to compilation, in September 1981. This investigation consisted of the recovery and photoidentification of horizontal control. There was no field inspection performed.

Photo coverage for compilation and aerotriangulation was taken in June 1980 with the Wild RC-10(Z) camera at a scale of 1:50,000 and 1:20,000, panchromatic. The 1:20,000 scale photographs were used to supplement the base compilation.

Aerotriangulation was adequately provided at the Washington Science Center, Rockville, Maryland. The 1:50,000 panchromatic photographs were bridged using analytic aerotriangulation methods.

Compilation was performed at the Washington Science Center, Rockville, Maryland in August 1983. The largest scale chart was used as a guide for selection and limit of interior detail.

Final review was performed at the Washington Science Center, Rockville, Maryland in December 1983. This map complies with the National Standards of Map Accuracy.

A chart maintenance print was prepared during the final review and forwarded to the Marine Chart Branch. Accompanying the above mentioned print was NOAA forms 76-40, listing of landmarks and nonfloating aids to navigation.

The context of this Descriptive Report contains all pertinent reports and listings of data used to compile this final map.

A stable base positive copy of this final map and the Descriptive Report will be registered in the NOS Archives.

Photogrammetric Plot Report

Saginaw River, Michigan

CM-8001

April 1983

21. Area Covered

This report pertains to the Saginaw River from Saginaw, Michigan to Saginaw Bay. The area is covered by two 1:20,000 scale sheets, TP-00897 and TP-00898.

22. Method

One strip of 1:50,000 scale black and white photographs was bridged by analytical aerotriangulation methods. Control was field identified. Ratio values were determined for the 1:50,000 scale black and white photography. Positions were determined for two fixed aids and eight landmarks. The bridging photographs were adjusted using the Michigan State Plane Coordinate System, South Zone.

The aerotriangulation of this project will meet the horizontal accuracy requirements of the National Ocean Service.

23. Adequacy of Control

The control was adequate.

24. Supplemental Data

USGS quadrangles were used to provide vertical control for strip adjustments.

25. Photography

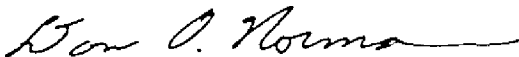
The photography was adequate.

Submitted by,

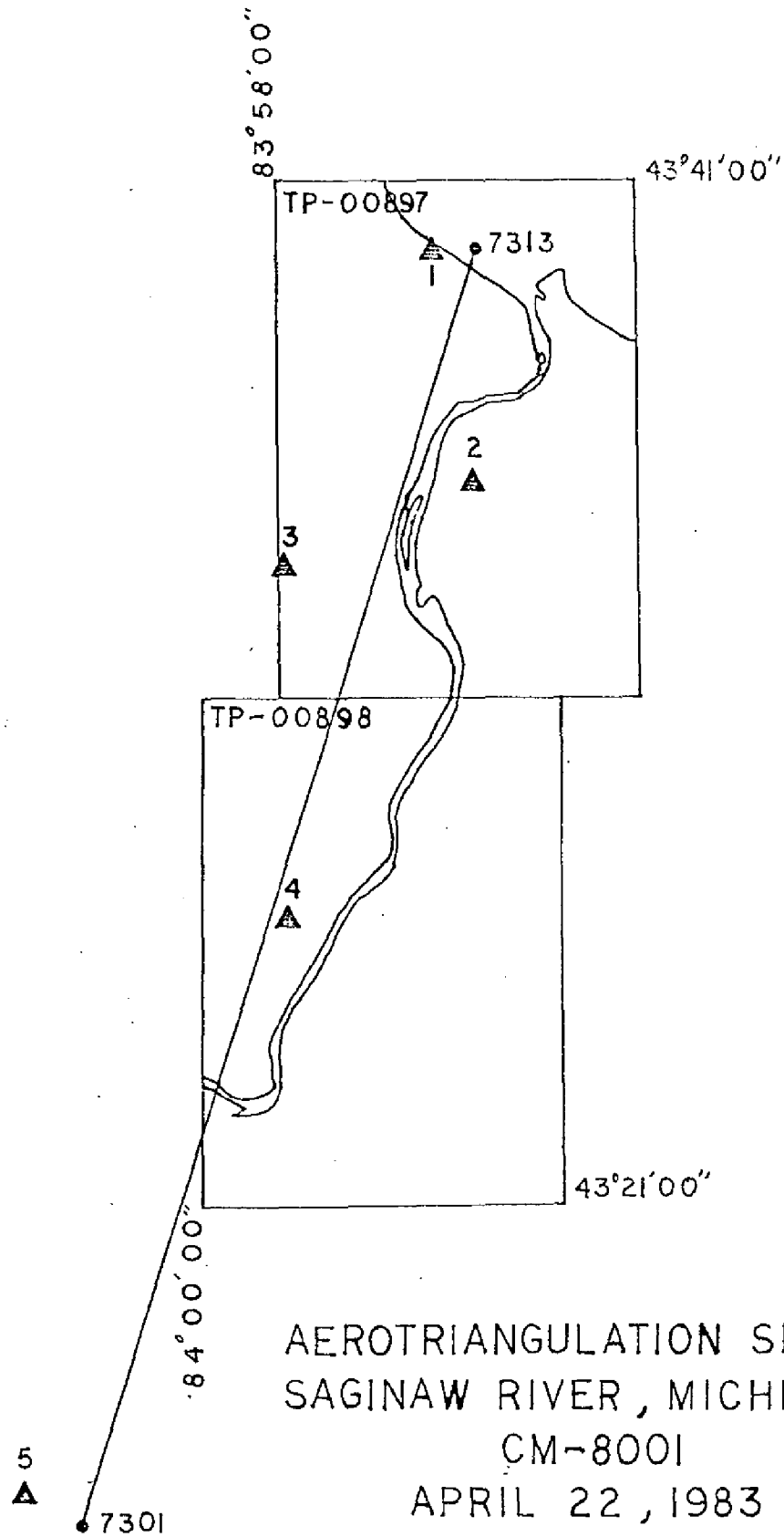


Rick Johanson

Approved and Forwarded:



Don O. Norman
Chief, Aerotriangulation Unit



AEROTRIANGULATION SKETCH
SAGINAW RIVER, MICHIGAN

CM-8001

APRIL 22, 1983

BRIDGING / COMPILATION PHOTOGRAPHY

81 ZP. 1:50000

Saginaw River, Michigan

CM-8001

Fit to Control
(in feet)

Stations Held in Adjustment

| | | <u>Point Number</u> | <u>X</u> | <u>Y</u> |
|----|---|---------------------|----------|----------|
| 1. | Bay City, Water Supply Stack, 1932 | | | |
| | Sub Pt A | 313101 | -2.3 | 2.1 |
| | Sub Pt B | 313102 | -0.1 | -0.6 |
| 2. | Bay City, Eastern High School Dome, 1932 | 311100 | 5.0 | -1.2 |
| | Sub Pt A | 311101 | -0.3 | 2.3 |
| | Sub Pt B | 311102 | -0.1 | -0.6 |
| 3. | Appold 2, 1960 | | | |
| | Sub Pt A | 310101 | -4.9 | -5.5 |
| | Sub Pt B | 310102 | 1.0 | 1.1 |
| 4. | Saginaw 2, No. 3, 1972 | | | |
| | Sub Pt A | 307101 | -1.5 | 2.9 |
| | Sub Pt B | 307102 | 0.5 | -1.2 |
| 5. | Mair, 1932 | | | |
| | Sub Pt A | 301101 | 1.2 | 0.4 |
| | Sub Pt B | 301102 | -1.1 | -0.8 |

Saginaw River, Michigan

CM-8001

April 1983

Ratio values for black and white bridging photography

1:50,000 scale

80 Z(P) 7301-7313

X2.532

DESCRIPTIVE REPORT CONTROL RECORD

| MAP NO. | STATION NAME | JOB NO. | SOURCE OF INFORMATION (Index) | AEROTRI- ANGULATION POINT NUMBER | GEODETIC DATUM | | ORIGINATING ACTIVITY | | REMARKS |
|--------------------------|--|---------|----------------------------------|---|----------------|----------------------------------|---|---|------------|
| | | | | | STATE | ZONE | COORDINATES IN FEET | GEOGRAPHIC POSITION ϕ LATITUDE λ LONGITUDE | |
| TP-00897 | | CM-8001 | | | | N A 1927 | | Compilation | |
| | Bay City City Hall, 1932 | | 430834 pg 1008 | 3 | | X= 2,117,751.18 Y= 763,189.75 | ϕ 43° 35' 35.650" λ 83° 53' 20.037" | | |
| | Appold 2, 1960 | | 430834 pg 1002 | 310100 | | X= 2,097,888.02 Y= 751,150.39 | ϕ 43° 33' 37.697" λ 83° 57' 50.645" | | |
| | Bay City Clements Airport Beacon, 1932 | | 430834 pg 1009 | 10 | | X= 2,117,312.74 Y= 746,318.96 | ϕ 43° 32' 49.057" λ 83° 53' 27.199" | | |
| | Bay City Eastern High School Dome, 1932 | | 430834 pg 1011 | 311100 | | X= 2,121,748.28 Y= 761,461.39 | ϕ 43° 35' 18.369" λ 83° 52' 25.855" | | |
| | Bay City Water Supply Stack, 1932 | | 430834 pg 1017 | 1 | | X= 2,115,539.02 Y= 788,517.98 | ϕ 43° 39' 45.90" λ 83° 53' 48.31" | | |
| | | | | | | X= | ϕ | | |
| | | | | | | Y= | λ | | |
| | | | | | | X= | ϕ | | |
| | | | | | | Y= | λ | | |
| | | | | | | X= | ϕ | | |
| | | | | | | Y= | λ | | |
| | | | | | | X= | ϕ | | |
| | | | | | | Y= | λ | | |
| | | | | | | X= | ϕ | | |
| | | | | | | Y= | λ | | |
| | | | | | | X= | ϕ | | |
| | | | | | | Y= | λ | | |
| COMPUTED BY | | | | | | COMPUTATION CHECKED BY | | | DATE |
| LISTED BY Charles Heazel | | | | | | DATE 8/83 | | LISTING CHECKED BY Patrick Dempsey | DATE 12/83 |
| HAND PLOTTING BY | | | | | | DATE | | HAND PLOTTING CHECKED BY | DATE |

TP-00897
COMPILATION REPORT
AUGUST 10, 1983

31. DELINEATION

All detail was compiled from the 1:50,000 scale panchromatic photographs using the Wild B-8 stereoplotter. The 1:20,000 scale panchromatic photographs were used to verify the delineation of the worksheets from the Wild B-8.

32. CONTROL

See the Photogrammetric Plot Report for the adequacy of the horizontal control. Vertical control was taken from USGS quadrangle maps and used in leveling models on the Wild B-8.

33. SUPPLEMENTAL DATA

None

34. CONTOURS AND DRAINAGE

Contours were not applicable.

Drainage was delineated using the Wild B-8 stereoplotter.

35. SHORELINE AND ALONGSHORE DETAIL

The shoreline and alongshore detail was identified by office interpretation of the photographs. Some detail was omitted due to being too small to show at this scale.

No field inspection was made prior to compilation.

36. OFFSHORE DETAIL

Several obstructions, dolphins and islands were located during compilation.

37. LANDMARKS AND AIDS

Two aids were located by the Aerotriangulation Unit and verified during compilation.

Thirty landmarks were located in compilation.

38. CONTROL FOR FUTURE SURVEYS

None

39. JUNCTIONS

Refer to NOAA form 76-36B.

40-45. N/A

46. COMPARISON WITH EXISTING MAPS

Comparison was made with the following USGS quadrangle maps;
ESSEXVILLE, MICHIGAN, scale 1:24,000, 1967, photorevised 1973
BAY CITY, MICHIGAN, scale 1:24,000, 1967, photorevised 1973
BAY CITY N. E., MICHIGAN, scale 1:24,000 1967, photorevised 1973
KAWKAWLIN, MICHIGAN, scale 1:24,000, 1967, photorevised 1973

47. COMPARISON WITH EXISTING CHARTS

Comparison was made with Nautical chart 14867, 21st edition,
February 5, 1983, scale 1:20,000.

Submitted by;



Charles Heazel

Approved and Forwarded;



Robert Rodkey
Chief, Coastal Mapping Unit

REVIEW REPORT
SHORELINE SURVEY
TP-00897

61. GENERAL STATEMENT

A final review was performed for this shoreline map. A major shoreline change was noted at the mouth of the Kawkawlin River at latitude 43° 39' 30", longitude 83° 53' 00". No other major discrepancies were encountered. This map is registered as a class III map. For a complete analysis of the compilation refer to the Compilation Report bound with this Descriptive Report.

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS

N/A

63. COMPARISON WITH MAPS OF OTHER AGENCIES

Refer to paragraph 46 of the Compilation Report bound with this Descriptive Report.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS

N/A

65. COMPARISON WITH NAUTICAL CHARTS

Refer to paragraph 47 of the Compilation Report bound with this Descriptive Report.

66. ADEQUACY OF RESULTS AND FUTURE SURVEYS

This map complies with photogrammetric instructions for shoreline mapping and meets accuracy requirements of the National Standards of Map Accuracy.

Approved;

for Gregory T. Fenn
George M. Ball
Chief, Photogrammetric Section

Submitted by;

Patrick J. Dempsey
Patrick J. Dempsey

Lawrence W. Fritz
Chief, Photogrammetry Branch

Dec. 22, 1983

GEOGRAPHIC NAMES

FINAL NAME SHEET

CM-8001 (Saginaw River, Michigan)

TP-00897

Alpin Beach (locality)
Bay City
Bay City State Park
Cheboyganing Creek
Chesapeake and Ohio (RY)
Detroit and Mackinac (RY)
Donahue Beach (locality)
Dutch Creek
Essexville
Grand Trunk Western (RR)
Gull Island
Kawkawlin River
Lagoon Beach (locality)
Little Killarney Beach
Middle Ground
Saginaw Bay
Saginaw River
Skull Island
Stony Island
Tobico Beach (locality)
Tobico Lagoon
Wenona Beach (locality)
Windy Point

Approved

Charles E. Harrington

Charles E. Harrington
Chief Geographer
Nautical Chart Division

DISSEMINATION OF PROJECT MATERIAL
CM-8001
SAGINAW RIVER, LAKE MICHIGAN, MICHIGAN

NATIONAL ARCHIVES/FEDERAL RECORDS CENTER

Brown Jacket:

- Computer Printouts
- Project Diagram
- Duplicate Photogrammetric Plot Report
- Duplicate NOAA Form 76-40, Nonfloating Aids or
Landmarks for Charts, 8 pages
- Duplicate NOAA Form 76-41, Descriptive Report Control
Record, 2 pages
- Duplicate Forms "Map Features of Possible Landmark
Value", 2 pages
- Field Operations Notebook containing CSI cards(5), field
photographs(4), aerial photographs(5) annotated with
subpoint control identification, and miscellaneous
NOAA field survey observation forms.

BUREAU ARCHIVES

- Registration Copies of Maps
- Descriptive Reports of Maps

REPRODUCTION DIVISION

- 8X Reduction Negatives of Maps

OFFICE OF STAFF GEOGRAPHER

- Geographic Names Standards

| RESPONSIBLE PERSONNEL | |
|---|---|
| TYPE OF ACTION | NAME |
| OBJECTS INSPECTED FROM SEAWARD | |
| POSITIONS DETERMINED AND/OR VERIFIED | Charles Heazel |
| FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES | Patrick J. Dempsey |
| 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 (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 |
| FIELD I. NEW POSITION DETERMINED OR VERIFIED Enter the applicable data by symbols as follows: F - Field L - Located V - Verified 1 - Triangulation 2 - Traverse 3 - Intersection 4 - Resection 5 - Field identified 6 - Theodolite 7 - Planetable 8 - Sextant A. Field positions* require entry of method of location and date of field work. EXAMPLE: F-2-6-L 8-12-75 | 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. |
| *FIELD POSITIONS are determined by field observations based entirely upon ground survey methods. | |

| RESPONSIBLE PERSONNEL | |
|--|---|
| TYPE OF ACTION | NAME |
| OBJECTS INSPECTED FROM SEAWARD | |
| POSITIONS DETERMINED AND/OR VERIFIED | Charles Heazel |
| FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES | Patrick J. Dempsey |
| INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION' | |
| (Consult Photogrammetric Instructions No. 64.) | |
| OFFICE 1. 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 (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 |
| FIELD 1. NEW POSITION DETERMINED OR VERIFIED Enter the applicable data by symbols as follows: F - Field L - Located V - Verified 1 - Triangulation 2 - Traverse 3 - Intersection 4 - Resection 5 - Field identified 6 - Theodolite 7 - Planetable 8 - Sextant A. Field positions* require entry of method of location and date of field work. EXAMPLE: F-2-6-L 8-12-75 | 11. 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. 8-12-75 111. 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. |

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

| RESPONSIBLE PERSONNEL | | ORIGINATOR | |
|--|--------------------|--|--|
| TYPE OF ACTION | NAME | | |
| OBJECTS INSPECTED FROM SEAWARD | | <input type="checkbox"/> PHOTO FIELD PARTY <input type="checkbox"/> HYDROGRAPHIC PARTY <input type="checkbox"/> GEODETIC PARTY <input type="checkbox"/> OTHER (Specify) | |
| POSITIONS DETERMINED AND/OR VERIFIED | Charles Heazel | FIELD ACTIVITY REPRESENTATIVE | |
| FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES | Patrick J. Dempsey | <input checked="" type="checkbox"/> REVIEWER <input type="checkbox"/> 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 (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 | |
| FIELD I. NEW POSITION DETERMINED OR VERIFIED Enter the applicable data by symbols as follows: F - Field L - Located V - Verified 1 - Triangulation 2 - Traverse 3 - Intersection 4 - Resection 5 - Field identified 6 - Theodolite 7 - Planetable 8 - Sextant A. Field positions* require entry of method of location and date of field work. EXAMPLE: F-2-6-L 8-12-75 | | 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 | |
| *FIELD POSITIONS are determined by field observations based entirely upon ground survey methods. | | **PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods. | |

[illegible]

| RESPONSIBLE PERSONNEL | |
|---|---|
| TYPE OF ACTION | NAME |
| OBJECTS INSPECTED FROM SEAWARD | |
| POSITIONS DETERMINED AND/OR VERIFIED | Charles Heazel |
| FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES | Patrick J. Dempsey |
| 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 (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 |
| FIELD I. NEW POSITION DETERMINED OR VERIFIED Enter the applicable data by symbols as follows: F - Field L - Located V - Verified 1 - Triangulation 2 - Traverse 3 - Intersection 4 - Resection P - Photogrammetric Vis - Visually 5 - Field identified 6 - Theodolite 7 - Planetable 8 - Sextant A. Field positions* require entry of method of location and date of field work. EXAMPLE: F-2-6-L 8-12-75 | III. 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 II. 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. |
| *FIELD POSITIONS are determined by field observations based entirely upon ground survey methods. | |

| RESPONSIBLE PERSONNEL | | ORIGINATOR | |
|--|--------------------|--|--|
| TYPE OF ACTION | NAME | | |
| OBJECTS INSPECTED FROM SEAWARD | | <input type="checkbox"/> PHOTO FIELD PARTY <input type="checkbox"/> HYDROGRAPHIC PARTY <input type="checkbox"/> GEODETIC PARTY <input type="checkbox"/> OTHER (Specify) | |
| POSITIONS DETERMINED AND/OR VERIFIED | Charles Heazel | FIELD ACTIVITY REPRESENTATIVE | |
| FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES | Patrick J. Dempsey | <input checked="" type="checkbox"/> REVIEWER <input type="checkbox"/> QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE | |
| INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION' (Consult Photogrammetric Instructions No. 64.) | | | |
| OFFICE 1. 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 (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 | |
| FIELD I. NEW POSITION DETERMINED OR VERIFIED Enter the applicable data by symbols as follows: F - Field L - Located V - Verified 1 - Triangulation 2 - Traverse 3 - Intersection 4 - Resection 5 - Field identified 6 - Theodolite 7 - Planetable 8 - Sextant A. Field positions* require entry of method of location and date of field work. EXAMPLE: F-2-6-L 8-12-75 | | 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 | |
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RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO.

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.

[illegible]