

TP-00952

TP-00952

NOAA FORM 76-35

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

## DESCRIPTIVE REPORT

Type of Survey ... Shoreline Harbor Chart .....

Job No. .... CM-7603 ..... Map No. .... TP-00952 .....

Classification No. III ..... Edition No. .... 1 .....

This map edition will not be field edited.

### LOCALITY

State .... Ohio .....

General Locality .... Lake Erie .....

Locality .... Huron Harbor .....

1975 TO 19

### REGISTRY IN ARCHIVES

DATE .....

|                                                                                                                                                                                                                                                                                 |  |                                                                         |  |                                                                                                         |  |                     |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------|--|---------------------|--|
| NOAA FORM 76-36A<br>(3-72)                                                                                                                                                                                                                                                      |  | U. S. DEPARTMENT OF COMMERCE<br>NATIONAL OCEANIC AND ATMOSPHERIC ADMIN. |  | TYPE OF SURVEY                                                                                          |  | SURVEY TP. 00952    |  |
| DESCRIPTIVE REPORT - DATA RECORD                                                                                                                                                                                                                                                |  |                                                                         |  | <input checked="" type="checkbox"/> ORIGINAL                                                            |  | MAP EDITION NO. (1) |  |
|                                                                                                                                                                                                                                                                                 |  |                                                                         |  | <input type="checkbox"/> RESURVEY                                                                       |  | MAP CLASS III       |  |
|                                                                                                                                                                                                                                                                                 |  |                                                                         |  | <input type="checkbox"/> REVISED                                                                        |  | JOB PH-CM-7603      |  |
| PHOTOGRAMMETRIC OFFICE<br>Photogrammetry Division<br>Rockville, MD                                                                                                                                                                                                              |  |                                                                         |  | LAST PRECEDING MAP EDITION                                                                              |  |                     |  |
| OFFICER-IN-CHARGE<br>Cdr. James Collins                                                                                                                                                                                                                                         |  |                                                                         |  | TYPE OF SURVEY                                                                                          |  | JOB PH-_____        |  |
|                                                                                                                                                                                                                                                                                 |  |                                                                         |  | <input type="checkbox"/> ORIGINAL                                                                       |  | MAP CLASS _____     |  |
|                                                                                                                                                                                                                                                                                 |  |                                                                         |  | <input type="checkbox"/> RESURVEY                                                                       |  | SURVEY DATES:       |  |
|                                                                                                                                                                                                                                                                                 |  |                                                                         |  | <input type="checkbox"/> REVISED                                                                        |  | 19__ TO 19__        |  |
| I. INSTRUCTIONS DATED                                                                                                                                                                                                                                                           |  |                                                                         |  |                                                                                                         |  |                     |  |
| 1. OFFICE                                                                                                                                                                                                                                                                       |  |                                                                         |  | 2. FIELD                                                                                                |  |                     |  |
| Instructions=Aerotriangulation - Job CM-7603<br>October 20, 1976<br>Instructions-Supplement I to Aerotriangulation<br>Job CM-7603 - Oct. 28, 1976<br>Instructions-Compilation - Job CM-7603<br>March 14, 1977 and Feb. 16, 1979<br>Correspondance-Field Edit Cancelation 3/5/80 |  |                                                                         |  | Instruction-Field-Job CM-7603<br>Aug. 27, 1975                                                          |  |                     |  |
| II. DATUMS                                                                                                                                                                                                                                                                      |  |                                                                         |  |                                                                                                         |  |                     |  |
| 1. HORIZONTAL: <input checked="" type="checkbox"/> 1927 NORTH AMERICAN                                                                                                                                                                                                          |  |                                                                         |  | OTHER (Specify)                                                                                         |  |                     |  |
| 2. VERTICAL: <input type="checkbox"/> MEAN HIGH-WATER<br><input type="checkbox"/> MEAN LOW-WATER<br><input type="checkbox"/> MEAN LOWER LOW-WATER<br><input type="checkbox"/> MEAN SEA LEVEL                                                                                    |  |                                                                         |  | OTHER (Specify)<br>Lake Erie Low Water Datum based on<br>International Great Lakes Datum (IGLD)<br>1955 |  |                     |  |
| 3. MAP PROJECTION<br>Lambert Conformal Conic                                                                                                                                                                                                                                    |  |                                                                         |  | 4. GRID(S)                                                                                              |  |                     |  |
|                                                                                                                                                                                                                                                                                 |  |                                                                         |  | STATE Ohio                                                                                              |  | ZONE North          |  |
| 5. SCALE<br>1:5,000                                                                                                                                                                                                                                                             |  |                                                                         |  | STATE                                                                                                   |  | ZONE                |  |
| III. HISTORY OF OFFICE OPERATIONS                                                                                                                                                                                                                                               |  |                                                                         |  |                                                                                                         |  |                     |  |
| OPERATIONS                                                                                                                                                                                                                                                                      |  |                                                                         |  | NAME                                                                                                    |  | DATE                |  |
| 1. AEROTRIANGULATION BY                                                                                                                                                                                                                                                         |  |                                                                         |  | S. Solbeck                                                                                              |  | March 1977          |  |
| METHOD: Analytic LANDMARKS AND AIDS BY                                                                                                                                                                                                                                          |  |                                                                         |  | "                                                                                                       |  | " "                 |  |
| 2. CONTROL AND BRIDGE POINTS PLOTTED BY                                                                                                                                                                                                                                         |  |                                                                         |  | J. Taylor                                                                                               |  | Apr. 1977           |  |
| METHOD: Cal Comp CHECKED BY                                                                                                                                                                                                                                                     |  |                                                                         |  | P. Dempsey                                                                                              |  | June 1977           |  |
| 3. STEREOSCOPIC INSTRUMENT PLANIMETRY BY                                                                                                                                                                                                                                        |  |                                                                         |  | "                                                                                                       |  | " "                 |  |
| COMPILATION CHECKED BY                                                                                                                                                                                                                                                          |  |                                                                         |  | A. Bethea                                                                                               |  | " "                 |  |
| INSTRUMENT: Wild B-8 Stereo plotter CONTOURS BY                                                                                                                                                                                                                                 |  |                                                                         |  | N/A                                                                                                     |  |                     |  |
| SCALE: 1:5,000 CHECKED BY                                                                                                                                                                                                                                                       |  |                                                                         |  | N/A                                                                                                     |  |                     |  |
| 4. MANUSCRIPT DELINEATION PLANIMETRY BY                                                                                                                                                                                                                                         |  |                                                                         |  | A. Bethea                                                                                               |  | May 1978            |  |
| Smooth Drafting CHECKED BY                                                                                                                                                                                                                                                      |  |                                                                         |  | P. Dempsey                                                                                              |  | Feb 1979            |  |
| METHOD: CONTOURS BY                                                                                                                                                                                                                                                             |  |                                                                         |  | N/A                                                                                                     |  |                     |  |
| CHECKED BY                                                                                                                                                                                                                                                                      |  |                                                                         |  | N/A                                                                                                     |  |                     |  |
| SCALE: 1:5,000 HYDRO SUPPORT DATA BY                                                                                                                                                                                                                                            |  |                                                                         |  | N/A                                                                                                     |  |                     |  |
| CHECKED BY                                                                                                                                                                                                                                                                      |  |                                                                         |  | N/A                                                                                                     |  |                     |  |
| 5. OFFICE INSPECTION PRIOR TO FIELD EDIT BY                                                                                                                                                                                                                                     |  |                                                                         |  | P. Dempsey                                                                                              |  | Feb. 1979           |  |
| 6. APPLICATION OF FIELD EDIT DATA BY                                                                                                                                                                                                                                            |  |                                                                         |  | Field Edit Canceled                                                                                     |  | March 1980          |  |
| CHECKED BY                                                                                                                                                                                                                                                                      |  |                                                                         |  | N/A                                                                                                     |  |                     |  |
| 7. COMPILATION SECTION REVIEW BY                                                                                                                                                                                                                                                |  |                                                                         |  | P. Dempsey                                                                                              |  | Apr. 1981           |  |
| 8. FINAL REVIEW BY                                                                                                                                                                                                                                                              |  |                                                                         |  | J. Schad                                                                                                |  | Sept. 1982          |  |
| 9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH BY                                                                                                                                                                                                                                  |  |                                                                         |  | F. Wright                                                                                               |  | Sept 1982           |  |
| 10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH BY                                                                                                                                                                                                                                  |  |                                                                         |  | J. Schmitt                                                                                              |  | Oct 1982            |  |
| 11. MAP REGISTERED - COASTAL SURVEY SECTION BY                                                                                                                                                                                                                                  |  |                                                                         |  | D. Wolfe                                                                                                |  | Oct 1983            |  |

COMPILATION SOURCES

TP-00952

1. COMPILATION PHOTOGRAPHY

|                                                                                                                                                                                           |                                                                                 |                                                                                                                                      |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|--|
| CAMERA(S)<br>RC-10 "B" 152.74 mm<br>6" focal length                                                                                                                                       | TYPES OF PHOTOGRAPHY<br>LEGEND<br>(C) COLOR<br>(P) PANCHROMATIC<br>(I) INFRARED | TIME REFERENCE<br>ZONE Eastern<br>MERIDIAN 60th<br><input type="checkbox"/> STANDARD<br><input checked="" type="checkbox"/> DAYLIGHT |  |
| TIDE STAGE REFERENCE<br><input type="checkbox"/> PREDICTED TIDES<br><input checked="" type="checkbox"/> REFERENCE STATION RECORDS<br><input type="checkbox"/> TIDE CONTROLLED PHOTOGRAPHY |                                                                                 |                                                                                                                                      |  |

| NUMBER AND TYPE  | DATE     | TIME | SCALE    | STAGE OF TIDE                                         |
|------------------|----------|------|----------|-------------------------------------------------------|
| 75B(C) 6362-6365 | 4 Oct 75 | 1330 | 1:20,000 | +3.83 ft. Lake Erie<br>Low Water Datum<br>Toledo Gage |

REMARKS The lake level at time of the photography was 572.43 based on the International Great Lakes Datum 1955 (Toledo Gage)

2. SOURCE OF MEAN HIGH-WATER LINE the SHORELINE is:

Photographs listed 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 | EAST  | SOUTH | WEST  |
|-------|-------|-------|-------|
| ----- | ----- | ----- | ----- |

REMARKS

## HISTORY OF FIELD OPERATIONS

TP-00952

I. ☒ FIELD INSPECTION OPERATION☐ FIELD EDIT OPERATION

| OPERATION                           | NAME                                                                                                                                                               | DATE       |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| 1. CHIEF OF FIELD PARTY             | Robert S. Tibbetts                                                                                                                                                 | Sept. 1975 |
| 2. HORIZONTAL CONTROL               | RECOVERED BY " "                                                                                                                                                   | " "        |
|                                     | ESTABLISHED BY " "                                                                                                                                                 | " "        |
|                                     | PRE-MARKED OR IDENTIFIED BY " "                                                                                                                                    | " "        |
| 3. VERTICAL CONTROL                 | RECOVERED BY None                                                                                                                                                  |            |
|                                     | ESTABLISHED BY None                                                                                                                                                |            |
|                                     | PRE-MARKED OR IDENTIFIED BY None                                                                                                                                   |            |
| 4. LANDMARKS AND AIDS TO NAVIGATION | RECOVERED (Triangulation Stations) BY None                                                                                                                         |            |
|                                     | LOCATED (Field Methods) BY None                                                                                                                                    |            |
|                                     | IDENTIFIED BY None                                                                                                                                                 |            |
| 5. GEOGRAPHIC NAMES INVESTIGATION   | TYPE OF INVESTIGATION<br><input type="checkbox"/> COMPLETE<br><input type="checkbox"/> SPECIFIC NAMES ONLY<br><input checked="" type="checkbox"/> NO INVESTIGATION |            |
| 6. PHOTO INSPECTION                 | CLARIFICATION OF DETAILS BY None                                                                                                                                   |            |
| 7. BOUNDARIES AND LIMITS            | SURVEYED OR IDENTIFIED BY N/A                                                                                                                                      |            |

## II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED  
NONE2. VERTICAL CONTROL IDENTIFIED  
N/A

| PHOTO NUMBER | STATION NAME | PHOTO NUMBER | STATION DESIGNATION |
|--------------|--------------|--------------|---------------------|
|              |              |              |                     |

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)

NONE

## HISTORY OF FIELD OPERATIONS

TP-00952

| OPERATION                                                                                      |                                                                                                                            | NAME                                                                                                                                                               | DATE                                                                               |
|------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| 1. CHIEF OF FIELD PARTY                                                                        |                                                                                                                            | Robert S. Tibbetts                                                                                                                                                 | June 1976                                                                          |
| 2. HORIZONTAL CONTROL                                                                          |                                                                                                                            | RECOVERED BY<br>ESTABLISHED BY<br>PRE-MARKED OR IDENTIFIED BY                                                                                                      | None<br>None<br>None                                                               |
| 3. VERTICAL CONTROL                                                                            |                                                                                                                            | RECOVERED BY<br>ESTABLISHED BY<br>PRE-MARKED OR IDENTIFIED BY                                                                                                      | N/A<br>N/A<br>N/A                                                                  |
| 4. LANDMARKS AND AIDS TO NAVIGATION                                                            |                                                                                                                            | RECOVERED (Triangulation Stations) BY<br>LOCATED (Field Methods) BY<br>IDENTIFIED BY                                                                               | L. Davis<br>"<br>"                                                                 |
| 5. GEOGRAPHIC NAMES INVESTIGATION                                                              |                                                                                                                            | TYPE OF INVESTIGATION<br><input type="checkbox"/> COMPLETE<br><input type="checkbox"/> SPECIFIC NAMES ONLY<br><input checked="" type="checkbox"/> NO INVESTIGATION | BY                                                                                 |
| 6. PHOTO INSPECTION                                                                            |                                                                                                                            | CLARIFICATION OF DETAILS BY                                                                                                                                        | None                                                                               |
| 7. BOUNDARIES AND LIMITS                                                                       |                                                                                                                            | SURVEYED OR IDENTIFIED BY                                                                                                                                          | N/A                                                                                |
| II. SOURCE DATA                                                                                |                                                                                                                            |                                                                                                                                                                    |                                                                                    |
| 1. HORIZONTAL CONTROL IDENTIFIED                                                               |                                                                                                                            | 2. VERTICAL CONTROL IDENTIFIED                                                                                                                                     |                                                                                    |
| None                                                                                           |                                                                                                                            | None                                                                                                                                                               |                                                                                    |
| PHOTO NUMBER                                                                                   | STATION NAME                                                                                                               | PHOTO NUMBER                                                                                                                                                       | STATION DESIGNATION                                                                |
|                                                                                                |                                                                                                                            |                                                                                                                                                                    |                                                                                    |
| 3. PHOTO NUMBERS (Clarification of details)                                                    |                                                                                                                            |                                                                                                                                                                    |                                                                                    |
| N/A                                                                                            |                                                                                                                            |                                                                                                                                                                    |                                                                                    |
| 4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED                                                 |                                                                                                                            |                                                                                                                                                                    |                                                                                    |
| PHOTO NUMBER                                                                                   | OBJECT NAME                                                                                                                | PHOTO NUMBER                                                                                                                                                       | OBJECT NAME                                                                        |
| 75BC 6364                                                                                      | Huron Harbor Light<br>East Breakwater Light<br>Inner Light<br>Inner East Light<br>Huron River Mooring Basin<br>North Light | 75BC 6364                                                                                                                                                          | Huron River Mooring<br>Basin South Light<br>Tank<br>Tank-Huron Munci<br>Water Tank |
| 5. GEOGRAPHIC NAMES: <input type="checkbox"/> REPORT <input checked="" type="checkbox"/> NONE  |                                                                                                                            | 6. BOUNDARY AND LIMITS: <input type="checkbox"/> REPORT <input checked="" type="checkbox"/> NONE                                                                   |                                                                                    |
| 7. SUPPLEMENTAL MAPS AND PLANS                                                                 |                                                                                                                            |                                                                                                                                                                    |                                                                                    |
| None                                                                                           |                                                                                                                            |                                                                                                                                                                    |                                                                                    |
| 8. OTHER FIELD RECORDS (Sketch books, etc. DO NOT list data submitted to the Geodesy Division) |                                                                                                                            |                                                                                                                                                                    |                                                                                    |
| 3 NOAA Forms 76-40                                                                             |                                                                                                                            |                                                                                                                                                                    |                                                                                    |

## RECORD OF SURVEY USE

TP-00952

## I. MANUSCRIPT COPIES

| COMPILATION STAGES |          |                       | DATE MANUSCRIPT FORWARDED |               |
|--------------------|----------|-----------------------|---------------------------|---------------|
| DATA COMPILED      | DATE     | REMARKS               | MARINE CHARTS             | HYDRO SUPPORT |
| Final Reviewed Map | Nov 1982 | Class III Map (Final) |                           |               |
|                    |          |                       |                           |               |
|                    |          |                       |                           |               |
|                    |          |                       |                           |               |

## II. LANDMARKS AND AIDS TO NAVIGATION

## 1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH

| NUMBER     | CHART LETTER<br>NUMBER ASSIGNED | DATE<br>FORWARDED | REMARKS                                            |
|------------|---------------------------------|-------------------|----------------------------------------------------|
| 4<br>Pages |                                 | Nov 1982          | Landmarks/Aids for charting via NOAA<br>Form 76-40 |
|            |                                 |                   |                                                    |
|            |                                 |                   |                                                    |
|            |                                 |                   |                                                    |
|            |                                 |                   |                                                    |
|            |                                 |                   |                                                    |
|            |                                 |                   |                                                    |

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 NO. 76-40 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. ☒ Duplicate of NOAA Form 76-40  
☒ DATA TO FEDERAL RECORDS CENTER. DATE FORWARDED: FEB. 1983

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

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

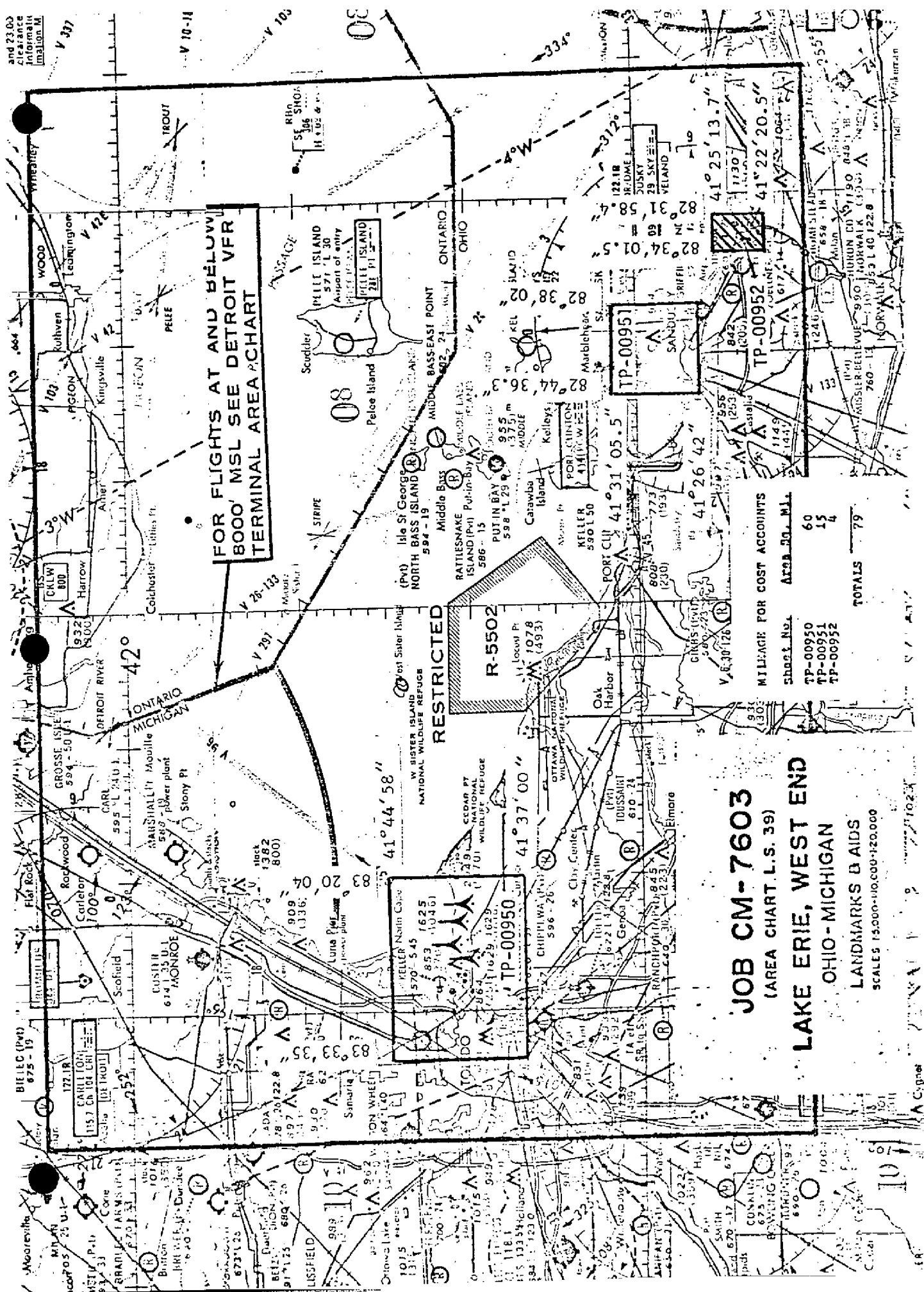
and 23.00  
clearance  
information  
mission M

V 327

V 10-11

V 103

334°



FOR FLIGHTS AT AND BELOW  
8000' MSL SEE DETROIT VFR  
TERMINAL AREA CHART

RESTRICTED

JOB CM-7603

(AREA CHART L.S. 39)

LAKE ERIE, WEST END

OHIO-MICHIGAN

LANDMARKS & AIDS

SCALE 1:50,000-1:100,000

MILLAGE FOR COST ACCOUNTS

| Sheet No.     | Area Sq. MI. |
|---------------|--------------|
| TP-00950      | 60           |
| TP-00951      | 15           |
| TP-00952      | 14           |
| <b>TOTALS</b> | <b>79</b>    |

## Summary

TP-00952

This map is one of three shoreline maps, TP-00950, TP-00951, and TP-00952 that comprise of Job CM-7603. The purpose of this job is to provide contemporary shoreline data and alongshore detail for nautical chart revision. This map portrays the shoreline and alongshore detail of lake Erie in the vicinity of the Hudson River entrance, including Huron River and Mud Brook.

Field operation was accomplished in September 1975 and June 1976 and consisted of the provision of aerial photographs, recovery, location and identification of landmarks and aids to navigation. 7.0

Natural color photographs were taken October 4, 1975, with the Wild RC 10-B camera at 1:20,000 scale, which were provided to aerotriangulation and compilation sections.

Aerotriangulation was performed at the Washington Science Center, Rockville, Maryland. The photographs were bridged using analytic aerotriangulation methods.

Compilation was performed in May 1978 at the Washington Science Center, Rockville, Maryland, by the Coastal Mapping Section.

Final Review of this map was performed at the Washington Science Center, Rockville, Maryland, in September 1982. This map complies with the National Map Accuracy Standards.

A copy of TP-00952, labeled Chart Maintenance Print, was prepared during the final review and forwarded to the Marine Chart Division. Accompanying the above forwarded copy are NOAA Forms 76-40 listing the landmarks and nonfloating aids to navigation.

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

### Field Inspection

TP-00952

Field inspection operation consisted of the recovery and establishment of horizontal control and the investigation and identification of landmarks and aids to navigation.

Photogrammetric Plot Report  
.. CM-7603  
Lake Erie-West End  
March 1977

21. Area Covered

This report covers the western shoreline of Lake Erie from Huron, Ohio, clockwise along the Ohio and Michigan shoreline to Point Pelee in Ontario, Canada. Three TP-sheets are to be compiled in the order listed: Toledo, Ohio (1:20,000); Sandusky, Ohio (1:10,000); Huron, Ohio (1:5,000).

22. Method

Twenty-one strips of color photography were bridged by analytic aerotriangulation methods. Seven strips of 1:60,000 scale photography were bridged to provide control for the 1:20,000 scale photography. Fourteen strips of 1:20,000 scale photography were bridged to establish positions for field identifiable landmarks, aids to navigation, pass points and supplemental objects. A portion of the 1:60,000 scale photography was ratioed to provide supplemental coverage to TP-00950. Bridge points were used to determine ratio values for all photography being used for compilation.

23. Adequacy of Control

The control proved adequate according to map accuracy standards. However, in achieving these standards, some difficulties were encountered. Whenever possible, all panels were held in the strip adjustments, otherwise, tie points and home stations were used.

To the west of Huron, Ohio, one panel, Camp Boss, 1956 (C&GS), was barely held within National Map Accuracy Standards for the nearby 1:5,000 scale TP-sheet. It was left in the adjustment as no reason for this result was determined. This TP-sheet is to be compiled from 1:20,000 scale color photography and, thus, adequate control is critical. Except for the above station, no further control problems came up in this immediate area.

To the north of Sandusky Bay, two stations, Port Clinton Municipal Water Tank, 1956 (C&GS), and the sub point to Port Clinton Standard Products Company Water Tank, 1956 (C&GS) varied by as much as nine feet between three strips of photography.

The primary 1:60,000 scale bridging strip covering the Michigan shoreline was held to National Map Accuracy Standards. However, the amount of error was in excess of that normally expected for a project of this type. Two panels (sub points to the home station) are cited: Luna Pier Consumers Power Water Tank (USLS) and Point Aux Peaux Enrico Fermi Water Tank (USLS) (no dates given for either tank). The former was proved in error by verifying the home station, but the latter matched the reading of the home station.

Although the positions attained during aerotriangulation are acceptable, the degree of discrepancy is especially significant as the 1:60,000 scale bridging strips are the primary, if not the sole source, of control for the compilation photography. Any error occurring in this latter photography will only compound any error in the bridging photography and make the compiler's job more difficult.

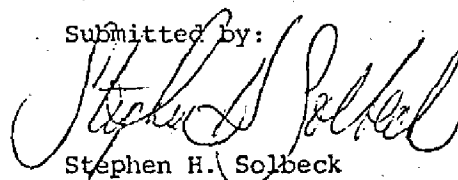
24. Supplemental Data

Elevations derived from USGS quadrangles were used to provide vertical control for the strip adjustments.

25. Photography

The quality of the photography was adequate for the job. The coverage of the 1:20,000 scale compilation photography missed small areas on two of the TP-sheets: To the west of TP-00951, part of Johnson Island is missing. To the east of TP-00950, the tip of Cedar Point is not covered. On this same TP-sheet, part of the 1:20,000 scale strip (75-B(C) 5552-5554) had to be dropped due to lack of control and this eliminated a series of lights extending bayward from Toledo. To the north of Toledo, North Cape and surrounding islands were not covered. In order to alleviate the problems on TP-00950, a portion of the 1:60,000 scale bridging photography was ratioed.

Submitted by:

  
Stephen H. Solbeck

Approved and Forwarded:



John D. Perrow, Jr.  
Chief, Aerotriangulation Section

# Aerotriangulation Sketch

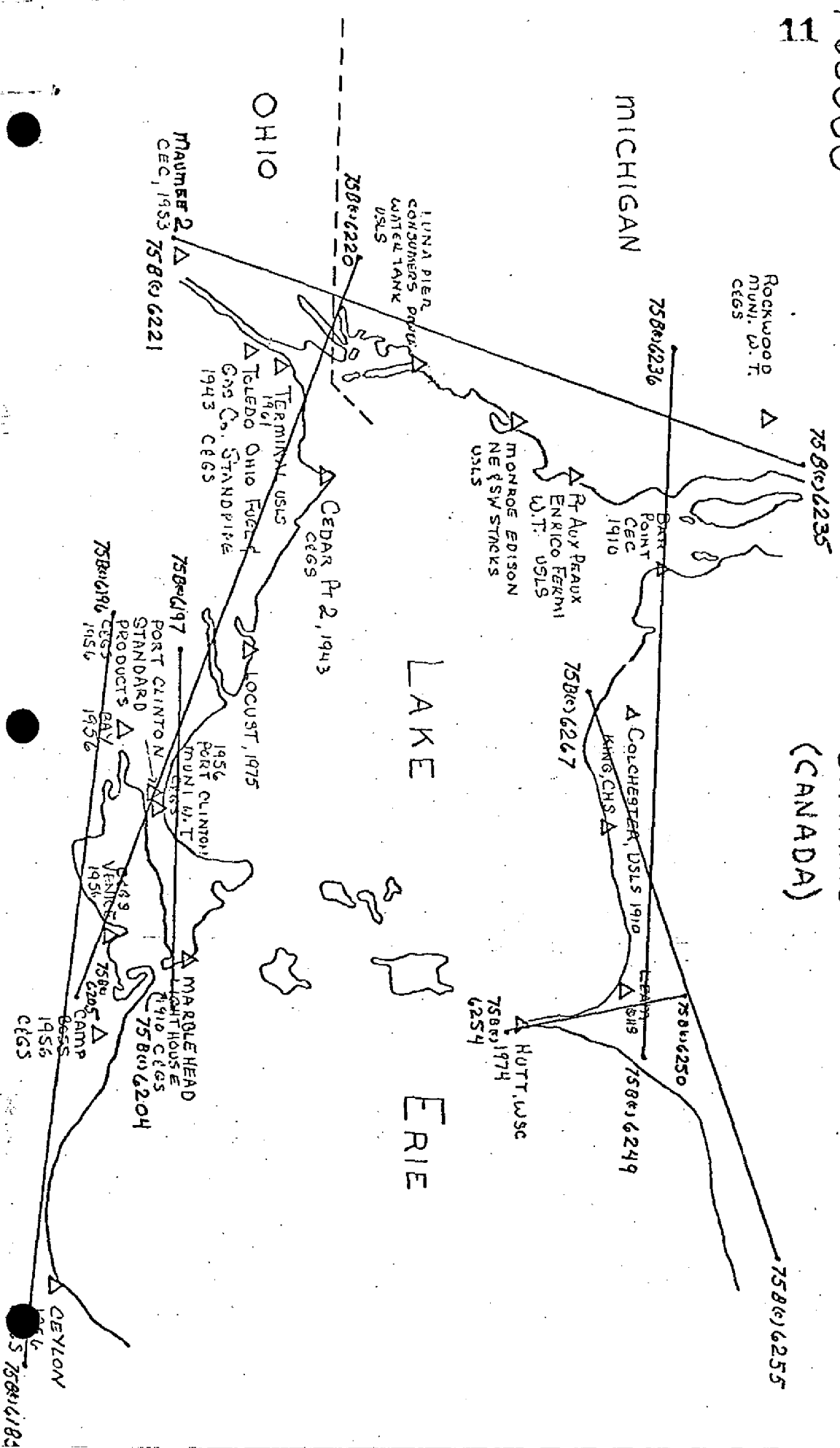
CM 7603

LAKE ERIE - West End

1:600000

1

ONTARIO  
(CANADA)





|         |                                                    |
|---------|----------------------------------------------------|
| 185100  | Ceylon, 1956                                       |
| 185101  | Sub Pt. (Panel)                                    |
| 188100  | Camp Boss, 1956                                    |
| 188101  | Sub Pt. A (Panel)                                  |
| 191100  | Venice, 1956                                       |
| 191101  | Sub Pt. (Panel)                                    |
| 192100  | Port Clinton Muni Water Tank 1956                  |
| 193100  | Port Clinton Standard Products Co. Water Tank 1956 |
| 193101  | Sub Pt. (Panel)                                    |
| 194100  | Bay 1956                                           |
| 194101  | Rm 1 (Panel)                                       |
| 203100  | Marblehead Lighthouse 1910                         |
| 203101  | Sub Pt. (Panel)                                    |
| 213100  | Locust 1975                                        |
| 213101  | Sub Pt. (Panel)                                    |
| 216100✓ | Cedar Pt. 2, 1943 (Panel)                          |
| 218100✓ | Terminal 1961 (USLS)                               |
| 218101  | Sub Pt. (Panel)                                    |
| 222100  | Maumee 2, 1953                                     |
| 222101  | Maumee Rm 1 (Panel)                                |
| 227100  | Luna Pier, Consumers Power Co. Water Tank (USLS)   |
| 227101  | Sub Pt. (Panel)                                    |
| 229102  | Monroe Edison SW Stack (USLS)                      |
| 229103  | Monroe Edison NE Stack (USLS)                      |
| 231100  | Point Aux Peaux Enrico Fermi Plant Tank (USLS)     |
| 231101  | Sub Pt. (Panel)                                    |
| 234100  | Rockwood Municipal Water Tank, 1957                |
| 234101  | Sub Pt. (Panel)                                    |
| 239100  | Detroit River Light                                |
| 240100  | Bar Point, 1910                                    |
| 240101  | Sub Pt. A                                          |
| 240102  | Sub Pt. B                                          |
| 242100  | Colchester 1910                                    |
| 242101  | Sub Pt. (Panel)                                    |
| 245100  | King (CHS) 1910                                    |
| 245101  | Sub Pt. (Panel)                                    |
| 247100  | Leam (CHS) 1910                                    |
| 247101  | Sub Pt. (Panel)                                    |
| 253100  | Hutt (CHS) 1974                                    |
| 253101  | Sub Pt. A (Panel)                                  |
| 257100  | Coat                                               |

Where date is not listed, none was available.

|                 | X      | Y      | Z       |
|-----------------|--------|--------|---------|
| <u>STRIP #1</u> |        |        |         |
| 191101          | - .69  | - .12  | 581.67  |
| 192100          | + .44  | +2.75  | 710.09  |
| 193101          | +1.45  | +2.65  | 573.71  |
| 194101          | -2.00  | -2.50  | 546.747 |
| 213101          | + .98  | + .26  | 569.88  |
| 216100          | + .69  | - .06  | 574.56  |
| 218101          | - .45  | - .23  | 609.15  |
| <u>STRIP #2</u> |        |        |         |
| 218101          | +5.50  | +2.16  | 616.68  |
| 222101          | - .61  | - .40  | 634.56  |
| 227100          | -2.95  | - .66  | 803.20  |
| 227101          | -9.21  | - .07  | 586.18  |
| 229102          | + .44  | - .43  | 1383.51 |
| 229103          | - .06  | -7.08  | 1370.03 |
| 231100          | +9.33  | -4.80  | 771.49  |
| 231101          | +9.17  | - .45  | 566.78  |
| 234100          | -2.02  | -5.78  | 690.78  |
| 234101          | -4.88  | -1.17  | 587.30  |
| <u>STRIP #3</u> |        |        |         |
| 234100          | +2.64  | -3.92  | 697.09  |
| 234101          | - .73  | -2.22  | 591.23  |
| 239100          | +3.93  | -10.62 | 585.94  |
| 239102          | -7.68  | +4.70  | 582.39  |
| 239103          | -11.22 | + .92  | 576.07  |
| 239104          | -10.88 | +6.78  | 583.93  |
| 240101          | -3.44  | - .35  | 574.77  |
| 240102          | +1.08  | +4.56  | 575.81  |
| 242101          | + .44  | -1.83  | 643.75  |
| 245101          | -1.39  | -1.97  | 602.52  |
| 247101          | + .64  | +1.47  | 584.09  |
| <u>STRIP #4</u> |        |        |         |
| 251820          | -1.72  | +4.00  | 590.75  |
| 251821          | +4.93  | + .75  | 598.96  |
| 247101          | +2.17  | + .32  | 578.76  |
| 252802          | -5.56  | -5.58  | 572.65  |
| 253101          | + .18  | + .52  | 591.35  |

STRIP #5

|        | X     | Y      | Z      |
|--------|-------|--------|--------|
| 242101 | +1.12 | - .85  | 644.19 |
| 245101 | -4.71 | +1.05  | 597.33 |
| 247101 | -3.62 | -12.08 | 572.32 |
| 257100 | - .78 | + .18  | 611.21 |
| 260820 | +2.25 | -1.99  | 627.37 |
| 261820 | +2.11 | +1.60  | 720.27 |
| 263820 | + .53 | + .64  | 629.27 |
| 263821 | + .89 | +2.32  | 599.05 |
| 264820 | -2.35 | +4.90  | 590.81 |
| 264821 | -1.27 | +4.15  | 605.92 |

STRIP #6

|        |       |       |        |
|--------|-------|-------|--------|
| 185101 | + .10 | -1.58 | 609.50 |
| 188101 | - .22 | +2.99 | 626.15 |
| 191101 | +1.98 | + .96 | 575.64 |
| 192100 | +6.42 | -5.99 | 716.08 |
| 193101 | - .11 | -5.64 | 578.76 |
| 194101 | -1.78 | +3.27 | 582.76 |

STRIP #7

|        |       |       |        |
|--------|-------|-------|--------|
| 192100 | +5.99 | -4.26 | 712.75 |
| 193101 | +2.28 | +3.52 | 584.66 |
| 198801 | -2.05 | - .25 | 573.95 |
| 198802 | + .29 | +1.36 | 576.87 |
| 199801 | +2.09 | -3.21 | 587.59 |
| 199802 | +1.33 | -2.19 | 585.83 |
| 200801 | +2.54 | -3.11 | 584.52 |
| 200802 | +1.48 | -6.49 | 578.41 |
| 201801 | + .95 | + .72 | 578.26 |
| 201802 | - .38 | +1.01 | 593.97 |
| 201803 | - .69 | -4.66 | 582.04 |
| 203101 | - .78 | +1.19 | 596.07 |
| 203801 | +6.04 | -7.82 | 582.73 |
| 203802 | +4.55 | -5.63 | 581.70 |

STRIP #11

|        | X     | Y      | Z      |
|--------|-------|--------|--------|
| 456801 | -1.18 | -3.716 | 600.87 |
| 456802 | - .27 | +3.56  | 592.93 |
| 461801 | -3.69 | + .46  | 579.18 |
| 461802 | +2.98 | + .11  | 574.76 |
| 462801 | + .93 | + .30  | 576.64 |
| 462802 | + .57 | -2.04  | 577.39 |
| 462803 | + .20 | +2.25  | 577.55 |
| 462804 | +3.74 | +2.85  | 577.74 |
| 463801 | -3.24 | - .58  | 575.82 |
| 463802 | +1.13 | -1.77  | 578.25 |
| 465803 | -1.15 | -1.43  | 614.08 |

STRIP #12

|        |        |       |        |
|--------|--------|-------|--------|
| 188101 | +1.98  | +3.07 | 625.94 |
| 361801 | + .03  | - .98 | 589.36 |
| 361802 | -1.55  | -1.90 | 635.12 |
| 361803 | - .46  | -1.22 | 614.59 |
| 363801 | -1.17  | +1.04 | 582.51 |
| 363802 | - .47  | - .67 | 601.92 |
| 365801 | - .45  | - .09 | 601.22 |
| 365802 | +1.49  | +1.25 | 613.09 |
| 185101 | + 1.01 | -1.45 | 606.04 |
| 367802 | +1.18  | + .41 | 621.39 |
| 369801 | + .14  | +1.05 | 617.25 |
| 369802 | -1.74  | - .52 | 748.56 |

STRIP #13

|        |       |       |        |
|--------|-------|-------|--------|
| 293801 | - .98 | - .80 | 579.06 |
| 293802 | +2.03 | +1.80 | 584.33 |
| 296801 | -1.68 | -3.20 | 573.73 |
| 296802 | - .94 | +3.12 | 588.14 |
| 299801 | -1.62 | +1.01 | 574.84 |
| 299802 | +1.58 | -3.73 | 606.98 |
| 302801 | +3.98 | +1.82 | 597.77 |
| 302802 | - .20 | + .67 | 604.71 |
| 305801 | + .05 | -1.36 | 583.87 |
| 305802 | -2.24 | + .67 | 584.77 |

|                  | X     | Y     | Z      |
|------------------|-------|-------|--------|
| <u>STRIP #14</u> |       |       |        |
| 193101           | + .04 | +2.83 | 580.39 |
| 324801           | - .21 | -2.35 | 581.66 |
| 324802           | +1.25 | -2.33 | 582.77 |
| 328801           | - .53 | - .31 | 577.52 |
| 328802           | +1.91 | +1.12 | 586.61 |
| 328803           | -2.65 | +1.07 | 578.17 |
| 203101           | - .37 | +1.34 | 583.89 |
| 333801           | + .55 | -1.37 | 582.42 |

|                  |       |       |        |
|------------------|-------|-------|--------|
| <u>STRIP #15</u> |       |       |        |
| 203101           | -1.82 | - .02 | 580.25 |
| 312801           | +2.17 | +2.14 | 591.56 |
| 312803           | +3.32 | - .67 | 579.87 |
| 193101           | -2.24 | -1.05 | 578.03 |
| 318140           | -2.92 | -1.30 | 689.74 |
| 318141           | -2.98 | - .18 | 725.78 |
| 321802           | +1.18 | +3.31 | 579.23 |
| 322801           | +2.27 | -2.72 | 584.63 |
| 322802           | +1.02 | + .49 | 579.16 |

|                  |       |       |        |
|------------------|-------|-------|--------|
| <u>STRIP #16</u> |       |       |        |
| 603801           | + .67 | -1.13 | 577.10 |
| 603802           | +3.15 | +1.69 | 572.28 |
| 603803           | -2.79 | -2.48 | 576.51 |
| 606801           | - .34 | +3.24 | 573.74 |
| 606802           | - .06 | -1.92 | 576.54 |
| 609801           | +1.13 | +1.27 | 577.41 |
| 609802           | -1.62 | - .73 | 575.78 |
| 612801           | - .37 | - .08 | 576.26 |
| 612803           | + .23 | + .14 | 574.72 |

|                  |       |       |        |
|------------------|-------|-------|--------|
| <u>STRIP #17</u> |       |       |        |
| 476801           | +2.21 | +1.33 | 570.84 |
| 476802           | - .83 | -1.02 | 567.02 |
| 480801           | - .79 | + .94 | 581.71 |
| 480802           | +1.43 | -3.22 | 584.12 |
| 482801           | - .11 | 4.29  | 580.18 |
| 482802           | + .46 | -1.92 | 585.66 |
| 484801           | -1.44 | +1.08 | 576.59 |
| 484802           | - .81 | -1.01 | 580.91 |
| 487802           | - .13 | - .47 | 568.17 |

X " Y Z

STRIP #18

|        |       |       |        |
|--------|-------|-------|--------|
| 556801 | +3.42 | - .23 | 576.18 |
| 566802 | -5.44 | +3.98 | 577.69 |
| 556803 | - .18 | +1.77 | 573.21 |
| 558801 | -1.66 | -2.23 | 588.14 |
| 558802 | + .43 | -4.78 | 570.14 |
| 560801 | +5.55 | +1.49 | 596.12 |
| 560802 | +5.37 | -3.94 | 596.92 |
| 563802 | -3.10 | + .44 | 598.39 |
| 565801 | -7.68 | +3.47 | 618.03 |
| 565802 | + .94 | +1.89 | 616.93 |
| 222101 | -1.83 | +4.30 | 627.11 |
| 570801 | -1.44 | -3.17 | 624.86 |
| 570802 | + .40 | -2.72 | 596.47 |
| 570803 | +5.23 | - .28 | 642.71 |

STRIP #19

|        |       |       |        |
|--------|-------|-------|--------|
| 490801 | - .98 | + .83 | 584.34 |
| 490802 | -1.06 | + .72 | 594.19 |
| 490803 | -4.29 | - .35 | 603.12 |
| 492801 | +9.04 | -2.84 | 587.82 |
| 492803 | +6.40 | +1.03 | 576.87 |
| 494801 | -1.33 | -1.11 | 579.71 |
| 494802 | -5.64 | - .50 | 577.36 |
| 497801 | - .49 | + .86 | 575.75 |
| 497802 | -4.93 | +1.50 | 573.05 |
| 500801 | +2.85 | + .55 | 576.00 |
| 500802 | + .96 | + .86 | 579.54 |
| 500803 | - .53 | -1.54 | 572.54 |

STRIP #20

|        |       |       |        |
|--------|-------|-------|--------|
| 513801 | +2.22 | +1.90 | 582.45 |
| 513802 | -2.88 | -2.00 | 571.21 |
| 513803 | +1.57 | - .72 | 573.34 |
| 516802 | - .44 | - .42 | 576.53 |
| 519802 | -2.32 | - .07 | 588.77 |
| 522801 | +4.95 | +1.66 | 592.49 |
| 522802 | - .21 | - .62 | 579.85 |
| 525802 | -3.29 | -1.77 | 579.29 |
| 528801 | + .77 | +1.51 | 593.99 |
| 528802 | +1.28 | +1.54 | 584.12 |
| 528803 | -1.64 | -1.01 | 579.98 |





## Compilation Report

CM-7603

TP-00952

31. Delineation

The shoreline and interior planimetric on this map was compiled on the Wild B-8 stereoplotter instrument from 1:20,000 scale color photographs. The photographs were controlled by map points determined by Aerotriangulation.

32. Control

Refer to the Aerotriangulation Plot Report for the adequacy of the horizontal control.

The vertical control used in leveling the Wild B-8 stereoplotter instrument was obtained from USGS quadrangle maps.

33. Supplemental Data - None34. Contours and Drainage

Contours are not applicable. Drainage was compiled from office interpretation of the 1:20,000 scale color photographs.

35. Shoreline and Alongshore Detail

The shoreline and alongshore detail was compiled by office interpretation of the photographs.

36. Offshore Detail

Offshore detail was delineated as shown on photographs.

37. Landmarks and Aids

Six aids were identified during Field Inspection. All twelve landmarks shown on chart were located in Aerotriangulation and verified in compilation. Only two of these landmarks were identified during Field Inspection.

38. Control for Future Surveys - None39. Junctions

There are no junctions to be made with this map.

40. Horizontal and Vertical Accuracy

Control for this map complies with The National Map Accuracy Standards.

41. thru 45. - Inapplicable

46. Comparison with Existing Maps

Comparison was made with the following USGS quadrangle maps:

Huron, Ohio, 1:24,000, 1969

Milan, Ohio, 1:24,000, 1969

47. Comparison with Nautical Charts

Comparison was made with the following Nautical Charts:

L.S. 363, Oct. 10, 1973, 1:5,000

Items to be applied to Nautical Charts immediately - None

Items to be carried forward - None

Submitted by,



P.J. Dempsey

Approved and forwarded:



Frank A. Wright  
Acting Chief, Coastal Mapping Section

Review Report  
Shoreline Survey  
TP-00952

61. General Statement

A final review was performed for this shoreline map and no major discrepancies were encountered. This map is registered as Class III since field edit was canceled March 5, 1980. For a complete analysis of TP-00952, refer to the Compilation Report bound with this Descriptive Report.

62. Comparison with Registered Topographic Survey - None

63. Comparison with Maps of Other Agencies

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

64. Comparison with Contemporary Hydrographic Surveys - None

65. Comparison with Nautical Charts

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

66. Adequacy of Results and Future Surveys

This map complies with the project instruction and meets National Map Accuracy Standards.

Submitted by,

*James Schad*

James Schad

Approved and Forwarded:

*George W. Bae*  
Chief, Photogrammetric Branch

*Laurence W. Fitz*

Chief, Photogrammetry Division

March 31, 1978

GEOGRAPHIC NAMES

COMPLILATION NAME SHEET

CM-7603 (Huron Harbor, Ohio)

CHART 14843 (LS 363)

Conrail (RR)

Huron

Huron River

Lake Erie

Mud Brook

Norfolk & Western (RY)

Approved by:



Charles E. Harrington, C3x8  
Chief Geographer

Information of Dissemination of Project Material

CM-7603

Lake Erie, West End, Ohio

NATIONAL ARCHIVE/FEDERAL RECORD CENTER

- . Aerotriangulation Bridging Photographs
- . Computer Readout
- . Control Station Identification Cards
- . NOAA Form 76-41 (Descriptive Report Control Record)
- . NOAA Form 76-40 (Field)
- . Project Diagram
- . Plot Report
- . Field Inspection Charts LS 37, 360, and 370

Bureau Archives

- . Descriptive Report
- . Registered Maps

Reproduction Division

- . 8X Reduction Negative of Each Map

Office of Staff Geographer

- . Geographer Name Standard



76-40  
LISTING

VERSION 782707

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* SVY TP-00952 * * RPT UNIT CMD. ROCKVULLE, MD. * PAGE 2 OF 4. *
* JOB CM-7603 * * STATE OHIO * *
* PRJ 833201 * * LOCALITY HURON HARBOR * *ORIGINATING ACTIVITY*
* DTM NA 1927 * * DATE XX/XX/XX * * COMPILATION *
*
* THE FOLLOWING OBJECTS HAVE NOT BEEN INSPECTED FROM SEAWARD TO DETERMINE THEIR VALUE AS LANDMARKS *
*
* DESCRIPTION * * * * *
* CHARTING* RECORD REASON FOR DELETION * * * * *
* NAME * PUT TRIANGULATION NAMES IN ( ) * * * * *

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