

TP-00954

TP-00954

NOAA FORM 76-35

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

## DESCRIPTIVE REPORT

Type of Survey Shoreline  
Job No. CM-8002 Map No. TP-00954  
Classification No. III Edition No. \*1

### LOCALITY

State Puerto Rico  
General Locality North Coast - San Juan  
Locality Bahia de San Juan to  
Laguna de San Jose

\*This map edition will not be field edited.

19 80 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. 00954       |  |
| 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 <del>CM-8002</del> |  |
| PHOTOGRAMMETRIC OFFICE<br>Photogrammetry (Rockville)                                                                                                                                                               |  |                                                                         |  | LAST PRECEDING MAP EDITION                   |  |                        |  |
| OFFICER-IN-CHARGE<br>Walter S. Simmons                                                                                                                                                                             |  |                                                                         |  | 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-8002                                                                                                                                                                     |  |                                                                         |  | Instructions - FIELD - Job CM-8002           |  |                        |  |
| Instructions - OFFICE - Job CM-8002<br>10/10/81                                                                                                                                                                    |  |                                                                         |  | 9/23/80                                      |  |                        |  |
| II. DATUMS                                                                                                                                                                                                         |  |                                                                         |  |                                              |  |                        |  |
| 1. HORIZONTAL: <input type="checkbox"/> 1927 NORTH AMERICAN                                                                                                                                                        |  |                                                                         |  | OTHER (Specify)<br>Puerto Rico Datum         |  |                        |  |
| 2. VERTICAL: <input checked="" type="checkbox"/> MEAN HIGH-WATER<br><input type="checkbox"/> MEAN LOW-WATER<br><input checked="" type="checkbox"/> MEAN LOWER LOW-WATER<br><input type="checkbox"/> MEAN SEA LEVEL |  |                                                                         |  | OTHER (Specify)                              |  |                        |  |
| 3. MAP PROJECTION<br>Lambert Conformal Conic                                                                                                                                                                       |  |                                                                         |  | 4. GRID(S)                                   |  |                        |  |
|                                                                                                                                                                                                                    |  |                                                                         |  | STATE<br>Puerto Rico                         |  | ZONE                   |  |
| 5. SCALE<br>1:10,000                                                                                                                                                                                               |  |                                                                         |  | STATE                                        |  | ZONE                   |  |
| III. HISTORY OF OFFICE OPERATIONS                                                                                                                                                                                  |  |                                                                         |  |                                              |  |                        |  |
| OPERATIONS                                                                                                                                                                                                         |  |                                                                         |  | NAME                                         |  | DATE                   |  |
| 1. AEROTRIANGULATION BY                                                                                                                                                                                            |  |                                                                         |  | Steve Solbeck                                |  | July 1981              |  |
| METHOD: Analytic Block LANDMARKS AND AIDS BY                                                                                                                                                                       |  |                                                                         |  | " "                                          |  | " "                    |  |
| 2. CONTROL AND BRIDGE POINTS PLOTTED BY                                                                                                                                                                            |  |                                                                         |  | " "                                          |  | " 17, 198              |  |
| METHOD: Coradomat CHECKED BY                                                                                                                                                                                       |  |                                                                         |  | N/A                                          |  |                        |  |
| 3. STEREOSCOPIC INSTRUMENT PLANIMETRY BY                                                                                                                                                                           |  |                                                                         |  | William Maynard                              |  | Jan. 1982              |  |
| COMPILATION CHECKED BY                                                                                                                                                                                             |  |                                                                         |  | Robert Rodkey                                |  | " "                    |  |
| INSTRUMENT: Wild B-8S                                                                                                                                                                                              |  |                                                                         |  | CONTOURS BY                                  |  | N/A                    |  |
| SCALE: 1:10,000                                                                                                                                                                                                    |  |                                                                         |  | CHECKED BY                                   |  | N/A                    |  |
| 4. MANUSCRIPT DELINEATION PLANIMETRY BY                                                                                                                                                                            |  |                                                                         |  | William Maynard                              |  | May 20, 82             |  |
| CHECKED BY                                                                                                                                                                                                         |  |                                                                         |  | Robert Rodkey                                |  | " 22, 82               |  |
| METHOD: Smooth Drafting                                                                                                                                                                                            |  |                                                                         |  | CONTOURS BY                                  |  | N/A                    |  |
| HYDRO SUPPORT DATA BY                                                                                                                                                                                              |  |                                                                         |  | N/A                                          |  |                        |  |
| SCALE: 1:10,000                                                                                                                                                                                                    |  |                                                                         |  | CHECKED BY                                   |  | N/A                    |  |
| 5. OFFICE INSPECTION PRIOR TO FIELD EDIT BY                                                                                                                                                                        |  |                                                                         |  | N/A                                          |  |                        |  |
| 6. APPLICATION OF FIELD EDIT DATA BY                                                                                                                                                                               |  |                                                                         |  | Field Edit not scheduled                     |  |                        |  |
| CHECKED BY                                                                                                                                                                                                         |  |                                                                         |  | N/A                                          |  |                        |  |
| 7. COMPILATION SECTION REVIEW BY                                                                                                                                                                                   |  |                                                                         |  | Robert Rodkey                                |  | Nov. 3, 82             |  |
| 8. FINAL REVIEW BY                                                                                                                                                                                                 |  |                                                                         |  | " "                                          |  | Dec. 9, 82             |  |
| 9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH BY                                                                                                                                                                     |  |                                                                         |  | " "                                          |  | Dec. 14, 82            |  |
| 10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH BY                                                                                                                                                                     |  |                                                                         |  | Robert Ke196                                 |  | Jan. 1983              |  |
| 11. MAP REGISTERED - COASTAL SURVEY SECTION BY                                                                                                                                                                     |  |                                                                         |  | Howard D. Wolfe                              |  | 1983                   |  |

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

## COMPILATION SOURCES

TP-00954

## 1. COMPILATION PHOTOGRAPHY

|                                                                                                                                                                                           |         |                                                                                 |          |                                                                            |                                              |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------------------------------------------------------------------------------|----------|----------------------------------------------------------------------------|----------------------------------------------|
| CAMERA(S) Wild RC-8 (E)<br>Focal Length = 152.71 mm                                                                                                                                       |         | TYPES OF PHOTOGRAPHY<br>LEGEND<br>(C) COLOR<br>(P) PANCHROMATIC<br>(I) INFRARED |          | TIME REFERENCE                                                             |                                              |
| TIDE STAGE REFERENCE<br><input type="checkbox"/> PREDICTED TIDES<br><input checked="" type="checkbox"/> REFERENCE STATION RECORDS<br><input type="checkbox"/> TIDE CONTROLLED PHOTOGRAPHY |         |                                                                                 |          | ZONE<br>Atlantic                                                           | <input checked="" type="checkbox"/> STANDARD |
|                                                                                                                                                                                           |         |                                                                                 |          | MERIDIAN<br>66th                                                           | <input type="checkbox"/> DAYLIGHT            |
| NUMBER AND TYPE                                                                                                                                                                           | DATE    | TIME                                                                            | SCALE    | STAGE OF TIDE                                                              |                                              |
| 80 E(C) 3912, 14, 16,<br>18, 3920                                                                                                                                                         | 2/16/80 | 1718-1720                                                                       | 1:20,000 | Refer to the following<br>page:<br>Form 76-36B(1) for<br>tidal information |                                              |
| 80 E(C) 3877, 79, 81,<br>83, 3885                                                                                                                                                         | 2/16/80 | 1709-1711                                                                       | 1:20,000 |                                                                            |                                              |

REMARKS The stages of tide listed were determined from the  
"San Juan Gage" tide gage records.

## 2. SOURCE OF MEAN HIGH-WATER LINE:

The source of the mean high-water line is the photography listed above under Item 1. Refer to paragraph #35 of the Compilation Report bound with this Descriptive Report.

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

The source of the approximate mean lower low-water line is the photography listed under Item 1. Refer to paragraph #35 of the Compilation Report bound with this Descriptive Report.

## 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     |
|------------------------|----------|------------------------|----------|
| No Contemporary Survey | TP-00955 | No Contemporary Survey | TP-00953 |

REMARKS

## TIDE - COORDINATED PHOTOGRAPHY

TP - 00954

| LOCATION AND PHOTOGRAPHY                                                        | TIDE STATIONS<br>(In operation at time of photography) | STAGE OF TIDE        | MEAN RANGE     |
|---------------------------------------------------------------------------------|--------------------------------------------------------|----------------------|----------------|
| Bahia De San Juan to<br>Laguna De San Jose<br>80 E(C) 3877, 79, 81,<br>83, 3885 | San Juan Gage (3505)                                   | In Feet<br>+0.3 MLLW | In Feet<br>1.1 |
| Villa Mar to Isla<br>Grande 80 E(C) 3912,<br>14, 16, 18,<br>3920                | San Juan Gage (3505)                                   | +0.3 MLLW            | 1.1            |

## REMARKS:

The tide station in operation at the time of photography is a permanent station.

Tidal information was furnished by the Tides and Water Level Division (C23) and Surveys Planning Branch (C344).

## HISTORY OF FIELD OPERATIONS

TP-00954

I. ☐ FIELD INSPECTION OPERATION☐ FIELD EDIT OPERATION

| OPERATION                           | NAME                                                                                                                                                                      | DATE     |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| 1. CHIEF OF FIELD PARTY             | Robert S. Tibbetts                                                                                                                                                        | Feb 1981 |
| 2. HORIZONTAL CONTROL               | RECOVERED BY " " "                                                                                                                                                        | " "      |
|                                     | ESTABLISHED BY " " "                                                                                                                                                      | " "      |
|                                     | *****<br>PRE-MARKED OR IDENTIFIED BY " " "                                                                                                                                | " "      |
| 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<br><input type="checkbox"/> COMPLETE<br><input type="checkbox"/> SPECIFIC NAMES ONLY<br><input checked="" type="checkbox"/> NO INVESTIGATION BY 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 |                                    | 2. VERTICAL CONTROL IDENTIFIED |                     |
|----------------------------------|------------------------------------|--------------------------------|---------------------|
|                                  |                                    | None                           |                     |
| PHOTO NUMBER                     | STATION NAME                       | PHOTO NUMBER                   | STATION DESIGNATION |
| 80 E(C) 3913                     | ROIG Rm. #1 1964; Sub Sta. A and B |                                |                     |

## 3. PHOTO NUMBERS (Clarification of details)

None

## 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)

NOAA Forms: 76-52, 76-53, 76-63, also, 76-67, 76-72, 76-82A, 76-86, 76-102A, 76-170, 76-177, 76-184 and Field Control Report

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

## RECORD OF SURVEY USE

TP-00954

## I. MANUSCRIPT COPIES

| COMPILATION STAGES          |         |                            | DATE MANUSCRIPT FORWARDED |               |
|-----------------------------|---------|----------------------------|---------------------------|---------------|
| DATA COMPILED               | DATE    | REMARKS                    | MARINE CHARTS             | HYDRO SUPPORT |
| Registered<br>Shoreline Map | 12/8/82 | Class III Shoreline<br>Map | Feb 1, 1983               | Jan 13, 83    |
|                             |         |                            |                           |               |
|                             |         |                            |                           |               |
|                             |         |                            |                           |               |

## 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                                |
|------------|---------------------------------|-------------------|----------------------------------------|
| 5<br>Pages |                                 | Feb 1, 83         | Landmarks/Aids for Charting 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

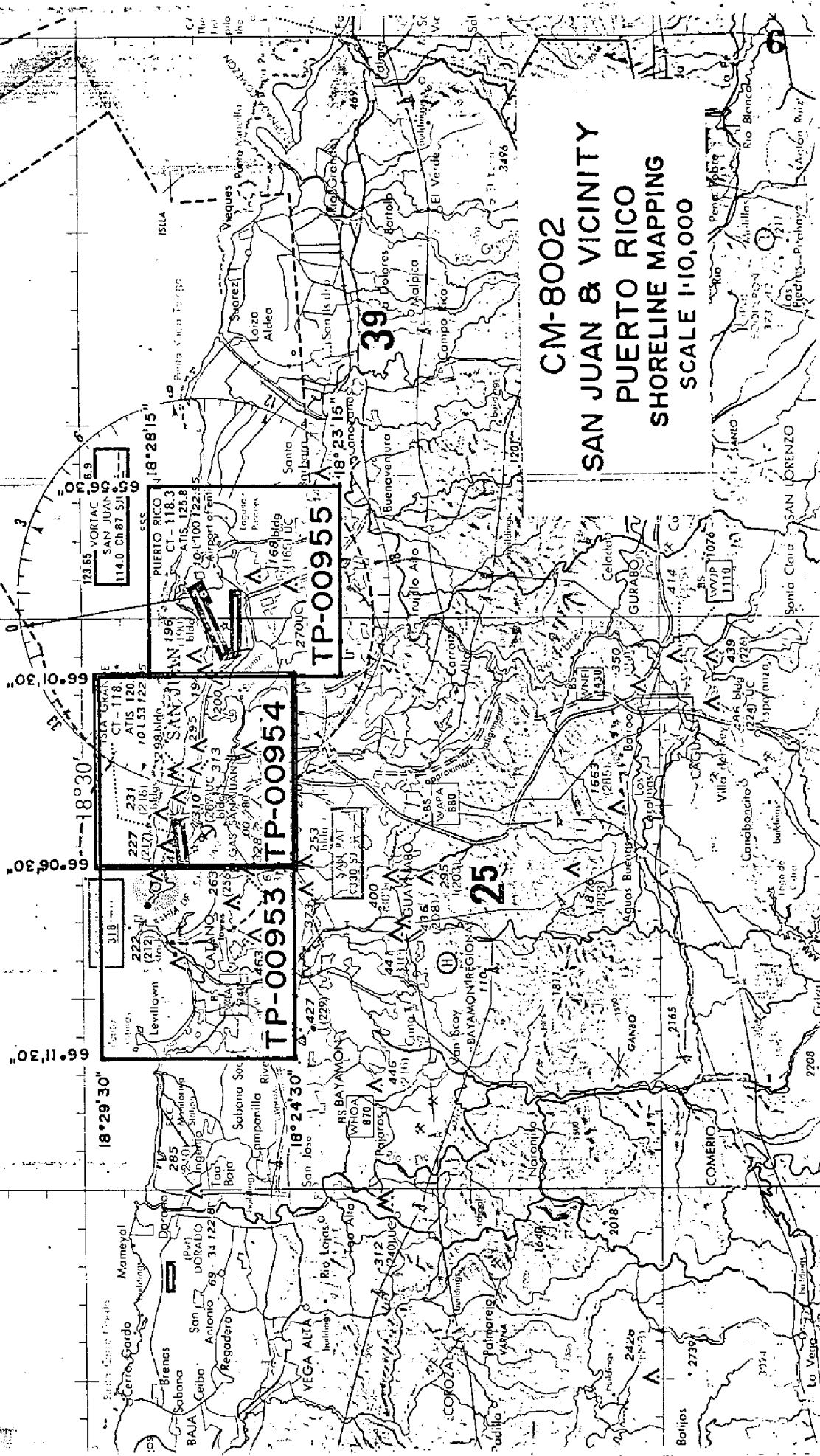
1. ☐ BRIDGING PHOTOGRAPHS; ☒ DUPLICATE BRIDGING REPORT; ☒ COMPUTER READOUTS.  
 2. ☒ CONTROL STATION IDENTIFICATION CARDS; ☐ FORM NOS 567 SUBMITTED BY FIELD PARTIES.  
 3. ☒ SOURCE DATA (except for Geographic Names Report) AS LISTED IN SECTION II, NOAA FORM 76-36C.  
 ACCOUNT FOR EXCEPTIONS:

4. ☐ DATA TO FEDERAL RECORDS CENTER. DATE FORWARDED: APRIL 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<br><br>MAP CLASS<br><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<br>EDITION  | SURVEY NUMBER<br>TP - _____ (3) | JOB NUMBER<br>PH - _____ | TYPE OF SURVEY<br><input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY<br><br>MAP CLASS<br><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<br>EDITION | SURVEY NUMBER<br>TP - _____ (4) | JOB NUMBER<br>PH - _____ | TYPE OF SURVEY<br><input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY<br><br>MAP CLASS<br><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-8002  
SAN JUAN & VICINITY  
PUERTO RICO  
SHORELINE MAPPING  
SCALE 1:10,000



TP-00954

SUMMARY

Job CM-8002 consists of three 1:10,000 scale shoreline maps. The project area encompasses part of the northern coastline of Puerto Rico which includes the city of San Juan.

The purpose of this survey is to provide data for new chart construction and hydrographic surveying.

Field operations began in February 1980. Operations generally consisted of taking aerial photographs and the recovery, establishment, and photoidentification of horizontal control. There was no field inspection performed. Hydrographic surveying is scheduled in the area covered by this map and subsequent field data will be incorporated as part of the hydrographic survey.

Natural color photographs taken at a scale of 1:20,000 in February 1980 with the Wild RC-8(E) camera were furnished to aerotriangulation.

Three strips of natural color photographs were bridged by analytic aerotriangulation methods and adjusted to ground on the Puerto Rico Coordinate System. Geodetic control used in the strip adjustments were field identified.

Tidal records for the San Juan Gage, Puerto Rico were furnished by the Tidal Datums and Information Branch, OA/C233. The gage records were used to determine the stage of tide at the time the compilation photographs.

Compilation was performed by the Special Projects Section (Rockville). Compilation was accomplished through standard photogrammetric methods utilizing the Wild B-8(S) Stereoplotter interfaced with the ALTEK digitizing system. Map detail is based on office interpretation of the 1:20,000 scale photographs and is smooth line drafted.

Final review was performed by the Special Project Section (Rockville). This map meets the requirements of the Bureau of Standards and National Standards of Map Accuracy.

The Descriptive Report contains all pertinent reports and listings of data used to compile the maps.

Photogrammetric Plot Report  
CM-8002  
San Juan and Vicinity, Puerto Rico  
July 1981

21. Area Covered

The area covered by this report is that part of the Northern Coastline of Puerto Rico which is inclusive of the city of San Juan. The area is covered by three 1:10,000 scale manuscripts; TP-00953, TP-00954, and TP-00955.

22. Method

Three strips of 1:20,000 scale color photography was bridged by standard analytic aerotriangulation methods. Field identified control was provided. Tie points were used to provide adequate junctioning between the strips, as well as, for additional control for the strip adjustments.

To ensure complete coverage of the shoreline, common points to the bridging photography were picked on additional 1:20,000 scale color photography to be used for B-8 stereo compilation.

The bridging photography was ratioed for compilation purposes. Ratio prints have been ordered. The manuscripts were ruled on the Coradomat.

23. Adequacy of Control

The National Geodetic Survey readjusted the horizontal control network in 1972. This control proved adequate for the project according to National Map Accuracy Standards.

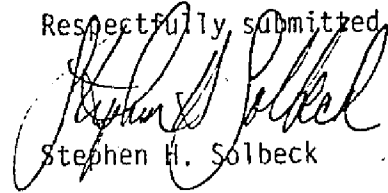
24. Supplemental Data

Sub points from the 1977 survey of OC-784 (Puerto Rico International Airport) and OC-1019 (Isla Grande Airport) were used as additional control. The sub points from OC-784 were based on positions from an older horizontal control network adjustment. One sub point at this airport was used in the strip adjustment. The readjustment of the network changed the control stations used in the original airport scheme BY -1.6 feet in X and + 4.3 feet in Y.

25. Photography

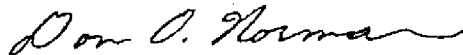
The coverage, overlap, and quality of the photography proved adequate for the job.

Respectfully submitted,



Stephen H. Solbeck

Approved and forwarded:



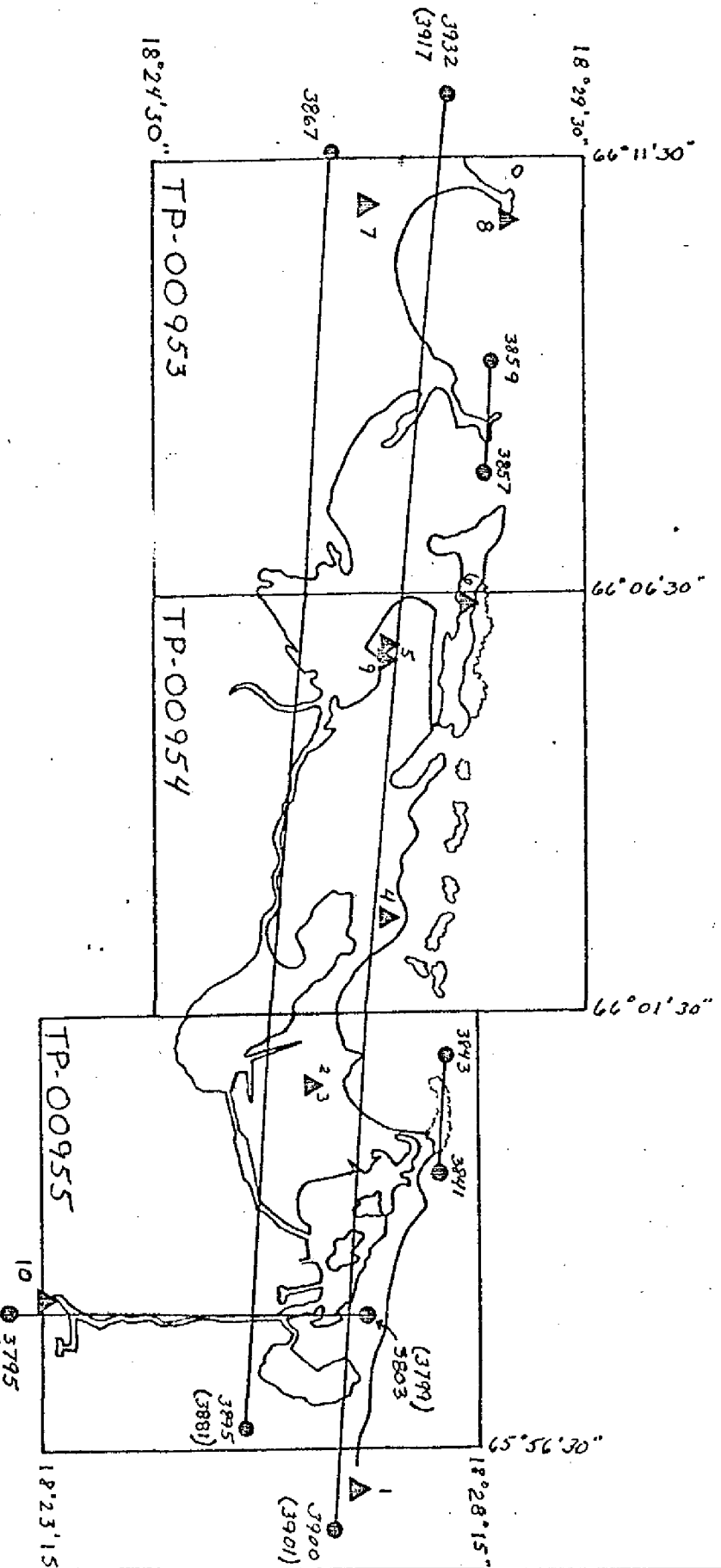
Don O. Norman  
Chief, Aerotriangulation Section

San Juan and Vicinity, Puerto Rico

CM-8002

BRIDGING AND COMPIATION PHOTOGRAPHY

80E (c) 1:20000



## FIT TO CONTROL

11

X and Y in feet

| <u>STRIP #1</u> |                       |          | <u>X</u>  | <u>Y</u> |        |
|-----------------|-----------------------|----------|-----------|----------|--------|
| 1               | Sandy, 1965           | Sub Pt A | ▲(901101) | .614     | - .247 |
|                 |                       | Sub Pt B | (901102)  | 2.131    | -1.410 |
| 2               | AP 1971 Sta A2 SJU    |          | (906101)  | -4.635   | 2.183  |
|                 | Sub Pt 1, 1977        |          |           |          |        |
| 3               | AP 1971 Sta A2 SJU    |          | (906102)  | -2.517   | 2.360  |
|                 | Sub Pt 2, 1977        |          |           |          |        |
| 4               | Roig, 1964            | Sub Pt A | ▲(907101) | -2.695   | 1.357  |
|                 |                       | Sub Pt B | (907102)  | -2.778   | 1.492  |
| 5               | AP 1966, Sta B Sub Pt |          | ▲(911101) | -2.454   | -1.434 |
|                 | 2, 1977               |          |           |          |        |
| 6               | Capitol, Cupola 1927  |          | (911141)  | -1.601   | 2.374  |
| 7               | Levittown Municipal   |          | (915100)  | 1.004    | - .398 |
|                 | Water Tank. 1966      |          |           |          |        |
|                 |                       | Sub Pt A | ▲(915101) | - .368   | - .875 |
|                 |                       | Sub Pt B | (915102)  | - .980   | -1.415 |
| 8               | Point Salinas, 1901   |          |           |          |        |
|                 |                       | Sub Pt A | (916101)  | 1.482    | 3.515  |
|                 |                       | Sub Pt B | ▲(916102) | - .004   | 1.199  |

| <u>STRIP #2</u> |                       |          |           |        |        |
|-----------------|-----------------------|----------|-----------|--------|--------|
| 7               | Levittown Municipal   |          | (915100)  | 3.685  | 1.061  |
|                 | Water Tank, 1966      |          |           |        |        |
|                 |                       | Sub Pt A | △(915101) | .931   | .394   |
|                 |                       | Sub Pt B | (915102)  | - .296 | .544   |
| 9               | San Juan U.S. Naval   |          |           |        |        |
|                 | Air Station W.T. 1966 |          | (872142)  | 1.563  | -1.816 |
| 4               | Roig, 1964            | Sub Pt A | (907101)  | -1.616 | .390   |
|                 |                       | Sub Pt B | (907102)  | .332   | .958   |
| 3               | AP 1971 Sta A2 SJU    |          |           |        |        |
|                 | Sub Pt 2, 1977        |          | △(906102) | .026   | - .529 |
| 2               | AP 1971 Sta A2 SJU    |          | (906101)  | -2.087 | 1.894  |
|                 | Sub Pt 1, 1977        |          |           |        |        |

| <u>STRIP #3</u>  |          |           | <u>X</u> | <u>Y</u> |
|------------------|----------|-----------|----------|----------|
| 10 Hospital 1981 | Sub Pt A | △(795101) | -1.871   | 4.751    |
|                  | Sub Pt B | (795102)  | - .277   | .219     |

▲ Stations held in the strip adjustments

CM-8002  
SAN JUAN AND VICINITY  
PUERTO RICO  
JULY 1981

13

Ratio values for 1:10000 scale color photography:

|                    |       |
|--------------------|-------|
| 80E(c) 3795 - 3803 | x1.97 |
| 80E(c) 3841 - 3843 | x1.98 |
| 80E(c) 3857 - 3859 | x1.98 |
| 80E(c) 3867 - 3895 | x1.98 |
| 80E(c) 3900 - 3932 | x1.98 |

## DESCRIPTIVE REPORT CONTROL RECORD

| MAP NO.                                      |                                | JOB NO.                         |                                      | GEODETTIC DATUM                                  |                                                          | ORIGINATING ACTIVITY       |  |
|----------------------------------------------|--------------------------------|---------------------------------|--------------------------------------|--------------------------------------------------|----------------------------------------------------------|----------------------------|--|
| TP-00954                                     |                                | CM8002                          |                                      | Puerto Rico                                      |                                                          | Compilation - S.P.S., P.B. |  |
| STATION NAME                                 | SOURCE OF INFORMATION (Index)  | AEROTRI-ANGULATION POINT NUMBER | COORDINATES IN FEET<br>STATE<br>ZONE | Geographic Position<br>φ LATITUDE<br>λ LONGITUDE | REMARKS                                                  |                            |  |
| ROIG RM No.1, 1964                           | G.P. Quad 184                  | 907100                          | x= 636,017.54<br>y= 224,891.15       | φ 18-27-08.204<br>λ 66-02-27.097                 | Station & RM2 not recovered in '81                       |                            |  |
| SHERATON 1964                                | #662-24<br>G.P. Quad 180662    |                                 | x= 625,696.77<br>y= 227,099.86       | φ 18-27-30.313<br>λ 66-04-14.260                 | RM No.1 plotted used as initial in 1981; plotted on map. |                            |  |
| SANTURCE PROFESSIONAL BLDG. ANTENNA 1966     | G.P. Quad 180662               |                                 | x= 626,627.83<br>y= 223,909.30       | φ 18-26-58.663<br>λ 66-04-04.654                 | No investigation, not plotted on the map.                |                            |  |
| MIRAMAR TOWER 1939                           | Sta. #1016<br>G.P. Quad 71     |                                 | x= 620,214.37<br>y= 227,040.98       | φ 18-27-29.834<br>λ 66-05-11.212                 | Landmark; no longer of LM value, plotted on map.         |                            |  |
| SAN JUAN U.S. NAVAL AIR STA. WATER TANK 1966 | #662-10 26<br>G.P. Quad 180662 |                                 | x= 617,416.04<br>y= 225,363.44       | φ 18-27-13.255<br>λ 66-05-40.313                 | Landmark, plotted on the map.                            |                            |  |
| ST. AUGUSTINE CATHEDRAL CUPOLA 1927          | Sta. #1021<br>G.P. Quad 70     |                                 | x= 615,707.44<br>y= 230,364.15       | φ 18-28-02.863<br>λ 66-05-57.967                 | Landmark; plotted on map.                                |                            |  |
| SAN JUAN TV STATION WAPA MAST 1966           | #662-10 26<br>G.P. Quad 180662 |                                 | x= 616,706.24<br>y= 230,271.37       | φ 18-28-01.925<br>λ 66-05-47.593                 | Unverified; not plotted on map.                          |                            |  |
| SAN JUAN CAPITOL CUPOLA 1927                 | Sta. #1018<br>G.P. Quad 180662 |                                 | x= 613,320.18<br>y= 230,828.21       | φ 18-28-07.506<br>λ 66-06-22.758                 | Landmark; plotted on the map.                            |                            |  |
| BRUGAL TOWER 1939                            | Sta. #1023<br>G.P. Quad 73     |                                 | x= 616,066.67<br>y= 215,159.06       | φ 18-25-32.113<br>λ 66-05-54.524                 | Charted landmark; appears destroyed, not plotted.        |                            |  |
|                                              | #662-10 28                     |                                 | x=<br>y=                             | φ<br>λ                                           |                                                          |                            |  |
| COMPUTED BY                                  |                                | DATE                            | COMPUTATION CHECKED BY               |                                                  | DATE                                                     |                            |  |
| LISTED BY                                    |                                | DATE                            | LISTING CHECKED BY                   |                                                  | DATE                                                     |                            |  |
| HAND PLOTTING BY                             |                                | DATE                            | HAND PLOTTING CHECKED BY             |                                                  | DATE                                                     |                            |  |
| Robert W. Rodkey, Jr.                        |                                | 3/2/82                          | William M. Maynard                   |                                                  | 6/8/82                                                   |                            |  |

## Compilation Report

TP-00954

31. Delineation

The shoreline map was compiled using the Wild B-8S stereoplotter. Natural color 1:20,000 scale photographs taken in 1980 were used for compilation.

32. Control

Refer to the Photogrammetric Plot Report bound with the Descriptive Report.

33. Supplemental Data - None34. Contours and Drainage

Contours are not applicable to the project. All drainage is from office interpretation of the natural color photographs.

35. Shoreline and Alongshore Detail

There was no preliminary field inspection of the shoreline.

The mean high water line and shoreline structures were compiled by office interpretation of the natural color photographs. The approximate mean lower low water line and reefs were compiled using underwater contouring compilation methods. Reef and ledge symbols on the map represent the approximate mean lower low water line.

36. Offshore Details

No unusual problems were encountered compiling offshore detail depicted on the shoreline map.

Breaker areas depicted on the shoreline map represent possible areas hazardous to navigation.

37. Landmarks and Aids

The landmarks and fixed aids shown on the shoreline map were not investigated by field personnel.

Thirteen fixed aids to navigation are depicted on the map. Eleven were measured during aerotriangulation and verified during the compilation phase. Two were electronically recorded ~~measured~~ during stereographic compilation with the positions derived through analytic adjustment to geodetic and aerotriangulated control.

Nine charted landmarks are depicted on this map: Three are geodetic stations which were verified during the aerotriangulation and compilation phases. Three were measured during aerotriangulation and verified during the compilation phase. Three were electronically recorded during stereographic compilation with the positions derived through analytic adjustment to geodetic and aerotriangulated control.

Five forms listing map features of possible landmark value are bound with the Descriptive Report. These features have not been field inspected and their geographic positions have been photogrammetrically determined.

38. Control for Future Surveys - None

39. Junctions

There are no junctions to the north and south. The west side of the map junction with TP-00953 and the east side junctions with TP-00955 (CM-8002).

40. through 45. Inapplicable

46. Comparison with Existing Maps

A comparison was made with the following USGS quadrangle:

San Juan, Puerto Rico, 1:20,000 scale, 1969 Edition

No significant differences were noted.

47. Comparison with Nautical Charts

A comparison was made with the following charts:

25668, 1:100,000 scale, 10th Edition, dated January 6, 1979.

25670, 1:10,000 scale, 31st Edition, dated October 28, 1978.

No significant differences were noted.

Items to be applied to Nautical Charts Immediately - None

Items to be carried forward - None

Submitted by,

*William M. Maynard*  
William M. Maynard

Approved and Forwarded:

*John A. Mooney, Jr.*  
John A. Mooney, Jr.  
Chief, Special Projects Section

Review Report  
Shoreline Survey  
TP-00954

61. General Statement

A final review was performed for this shoreline map and no discrepancies were encountered. This map is registered as Class III. For a complete analysis of TP-00954, 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

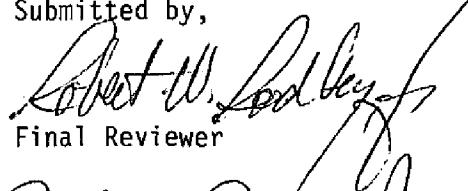
65. Comparison with Nautical Charts

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

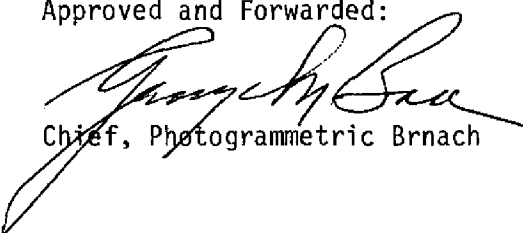
66. Adequacy of Results and Future Surveys

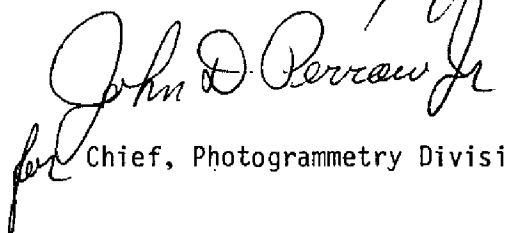
This map complies with the project instruction and meets the National Standards of Map Accuracy.

Submitted by,

  
Final Reviewer

Approved and Forwarded:

  
Chief, Photogrammetric Branch

  
for Chief, Photogrammetry Division

April 2, 1982

GEOGRAPHIC NAMES

FINAL NAME SHEET

CM-8002 (San Juan, Puerto Rico)

TP-00954

Aeropuerto de Isla Grande

Atlantic Ocean

Bahía de Puerto Nuevo

Bahía de San Jaun

Barrio Obrero

Caño de Martín Pena

Caño de San Antonio

Condado

El Boqueron

Fuerte San Jeronimo

Isla Guachinango

Isla Piedra

Isla San Juan

Laguna del Condado

Laguna de San José

Laguna Los Corozos

Las Casas

Miramar

Ocean Park

Peñón de San Jorge

Punta Escambrón

Punta Las Marias

Residencial Luis Llorens Torres

Río Piedras

Río Puerto Nuevo

San José

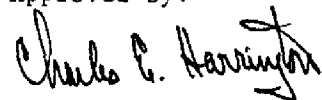
San Juan

Santa Teresita

Tras Talleras

Villa Mar

Approved by:



Charles E. Harrington  
Chief Geographer, OA/C3x5

DISSEMINATION OF PROJECT MATERIAL

CM-8002

San Juan and Vicinity, Puerto Rico

NATIONAL ARCHIVES/FEDERAL RECORDS CENTER

Brown Jacket

Plot Report(s) (duplicate copy(ies))  
Computer Printouts  
Tide data  
Field Control Report  
NOAA Forms 76-52(Horizontal Directions)(1 Book)  
NOAA Forms 76-53(CSI Cards)(Horizontal)  
NOAA Forms 76-63(Observations of Sun for Azimuth and Time)  
NOAA Forms 76-67(Traverse Computations by Latitudes and  
Departures)  
NOAA Forms 76-72(List of Directions)  
NOAA Forms 76-82A(Station Description-Short Form)  
NOAA Forms 76-86(Abstract of Directions)  
NOAA Forms 76-102A(Computation of Triangles and Elevations)  
NOAA Forms 76-170(Ranger III Observations)  
NOAA Forms 76-177(List of Preliminary Grid Azimuths)  
NOAA Forms 76-184(Direct Readout EDM Observations and  
Distance Computations)  
Photographs (5).of Photo-identified sub points for  
Horizontal Control.  
Listing of Ratio Values

Project Completion Report

BUREAU ARCHIVES

Registered Copy(ies) of map(s)  
Descriptive Report(s) of map(s)

REPRODUCTION DIVISION

Negative(s) of final map(s)

OFFICE OF STAFF GEOGRAPHER

Geographic Names Standard(s)

MARINE CHART DIVISION

Chart Maintenance Print(s) of map(s)  
Form(s) 76-40

\* SVY TP-00954 \*  
\* JOB CM-8002 \*  
\* PRJ SAN JUAN \*  
\* DTM P. RICO \*  
\* RPT UNIT SPS.PB, ROCKVILLE, MD. \*  
\* STATE PUERTO RICO \*  
\* LOCALITY SAN JUAN \*  
\* DATE 10/26/82 \*  
\* CRIGINATING ACTIVITY \*  
\* COMPILATION \*  
\* PAGE 1 OF 5 \*

\* POSITIONS DETERMINED \*  
\* AND/OR VERIFIED BY STEVE SOLBECK, WILLIAM MAYNARD \*  
\* FIELD AND OFFICE NO OFFLINE DIGITIZING PERFORMED \*  
\* ACTIVITIES WILLIAM MAYNARD \*  
\* FIELD REPRESENTATIVE \*  
\* OFFICE COMPILER \*  
\* DIGITIZER \*  
\* DATA PROCESSER \*

KEY FOR ENTRIES UNDER METHOD AND DATE OF LOCATION  
\* FIELD (CONT. D)  
\* B. PHOTOGRAMMETRIC FIELD POSITIONS\*\* SHOW  
\* THE METHOD OF LOCATION OR VERIFICATION,  
\* DATE OF FIELD WORK AND NUMBER OF PHOTO-  
\* GRAPH USED TO LOCATE AND IDENTIFY THE  
\* OBJECT.  
\* EXAMPLE P-8-V  
\* 8-12-77  
\* 74L(C)2982

OFFICE  
1. OFFICE IDENTIFIED AND LOCATED OBJECTS.  
THE NUMBER AND DATE (INCLUDING MONTH, DAY  
AND YEAR) OF THE PHOTOGRAPH USED TO  
IDENTIFY AND LOCATE THE OBJECT ARE SHOWN.  
EXAMPLE 75E(C)6042  
8-12-77

FIELD  
1. NEW POSITION DETERMINED OR VERIFIED  
KEY TO SYMBOLS  
P-PHOTOGRAMMETRIC  
VIS-VISUALLY  
5-FIELD IDENTIFIED  
6-THEODOLITE  
7-PLANETABLE  
8-SEXTANT  
A. FIELD POSITIONS\* SHOW THE METHOD OF  
LOCATION AND DATE OF FIELD WORK.  
EXAMPLE F-2-6-L  
8-12-76

\* FIELD POSITIONS ARE DETERMINED BY FIELD  
\* OBSERVATIONS BASED ENTIRELY UPON GROUND  
\* SURVEY METHODS

\* NOTE: WHERE THE NAME OF AN AID INCLUDES THE IMMEDIATE GEOGRAPHIC HEADING UNDER WHICH IT IS LISTED,  
\* A DASH (-) IS USED TO INDICATE THE GEOGRAPHIC HEADING WHICH IS PART OF THE OFFICIAL NAME.

| PHOTOGRAMMETRIC BRANCH<br>PHOTOGRAMMETRY DIVISION                                                    |  |                                            |  | NATIONAL OCEAN SURVEY<br>DEPARTMENT OF COMMERCE USA                                                  |  |             |  | DATATAB<br>VERSION<br>782707 |  |
|------------------------------------------------------------------------------------------------------|--|--------------------------------------------|--|------------------------------------------------------------------------------------------------------|--|-------------|--|------------------------------|--|
| 76-40<br>LISTING                                                                                     |  | TP-00954<br>CM-8002<br>SAN JUAN<br>P. RICO |  | RPT UNIT<br>SPS.PB.ROCKVILLE,MD.<br>STATE<br>PUERTO RICO<br>LOCALITY<br>SAN JUAN<br>DATE<br>10/26/82 |  | PAGE 2 OF 5 |  |                              |  |
| * THE FOLLOWING OBJECTS HAVE NOT BEEN INSPECTED FROM SEAWARD TO DETERMINE THEIR VALUE AS LANDMARKS * |  |                                            |  |                                                                                                      |  |             |  |                              |  |
| * CHARTING* RECORD REASON FOR DELETION * POSITION CMD * METHOD AND DATE * CHARTS *                   |  |                                            |  |                                                                                                      |  |             |  |                              |  |
| * NAME * PUT TRIANGULATION NAMES IN ( ) * LONGITUDE DP ALTEK* OF LOCATION * FIELD *AFFECTED*         |  |                                            |  |                                                                                                      |  |             |  |                              |  |
| * NORTH COAST *                                                                                      |  |                                            |  |                                                                                                      |  |             |  |                              |  |
| * BAHIA DE SAN JUAN *                                                                                |  |                                            |  |                                                                                                      |  |             |  |                              |  |
| * TMT OUTER DOLPHIN * 18 27 10.57 325.0 NOT *80E(C)3920* * 25668 *                                   |  |                                            |  |                                                                                                      |  |             |  |                              |  |
| * OBSTRUCTION LIGHT * 66 06 12.47 365.9 DGTZD* 02/16/80 * 25670 *                                    |  |                                            |  |                                                                                                      |  |             |  |                              |  |
| * TMT MIDDLE DOLPHIN * 18 27 11.28 346.8 NOT *80E(C)3920* * DITTO *                                  |  |                                            |  |                                                                                                      |  |             |  |                              |  |
| * OBSTRUCTION LIGHT * 66 06 11.73 344.2 DGTZD* 02/16/80 * *                                          |  |                                            |  |                                                                                                      |  |             |  |                              |  |
| * ARMY TERMINAL CHANNEL * *                                                                          |  |                                            |  |                                                                                                      |  |             |  |                              |  |
| * -RGE F * -RANGE FRONT LIGHT * 18 25 47.01 1445.3 NOT *80E(C)3877* * 25668 *                        |  |                                            |  |                                                                                                      |  |             |  |                              |  |
| * LIGHT * 66 06 29.66 870.4 DGTZD* 02/16/80 * 25670 *                                                |  |                                            |  |                                                                                                      |  |             |  |                              |  |
| * -RGE R * -RANGE REAR LIGHT * 18 25 35.72 1098.2 NOT *80E(C)3877* * DITTO *                         |  |                                            |  |                                                                                                      |  |             |  |                              |  |
| * LIGHT * 66 06 28.92 848.7 DGTZD* 02/16/80 * *                                                      |  |                                            |  |                                                                                                      |  |             |  |                              |  |
| * PUERTO NUEVO CHANNEL * *                                                                           |  |                                            |  |                                                                                                      |  |             |  |                              |  |
| * -RGE F * -RANGE FRONT LIGHT * 18 26 35.26 1084.0 NOT *80E(C)3875* * 25668 *                        |  |                                            |  |                                                                                                      |  |             |  |                              |  |
| * LIGHT * 66 05 11.60 340.4 DGTZD* 02/16/80 * 25670 *                                                |  |                                            |  |                                                                                                      |  |             |  |                              |  |
| * -RGE R * -RANGE REAR LIGHT * 18 26 44.76 1376.1 NOT *80E(C)3875* * DITTO *                         |  |                                            |  |                                                                                                      |  |             |  |                              |  |
| * LIGHT * 66 04 55.42 1626.2 DGTZD* 02/16/80 * *                                                     |  |                                            |  |                                                                                                      |  |             |  |                              |  |
| * -LT 3 * -LIGHT 3 * 18 26 15.12 464.9 NOT *80E(C)3877* * DITTO *                                    |  |                                            |  |                                                                                                      |  |             |  |                              |  |
| * * 66 05 50.24 1474.3 DGTZD* 02/16/80 * *                                                           |  |                                            |  |                                                                                                      |  |             |  |                              |  |





76-40 LISTING PHOTOGRAMMETRIC BRANCH PHOTOGRAMMETRY DIVISION NATIONAL OCEAN SURVEY NOAA DEPARTMENT OF COMMERCE USA DATATAB VERSION 782707

\* SVY TP-00954 \* LANDMARKS FOR CHARTS \* RPT UNIT SPS.PB.ROCKVILLE.MD.\* PAGE 5 OF 5 \*  
\* JOB CM-8002 \* TO BE REVISED \* STATE PUERTO RICO \*  
\* PRJ SAN JUAN \* LOCALITY SAN JUAN \* ORIGINATING ACTIVITY\*  
\* DTM P. RICO \* DATE 10/26/82 \* COMPILATION \*

\* THE FOLLOWING OBJECTS HAVE NOT BEEN INSPECTED FROM SEAWARD TO DETERMINE THEIR VALUE AS LANDMARKS \*

\* DESCRIPTION \* POSITION CMD \* METHOD AND DATE \*  
\* CHARTING\* RECORD REASON FOR DELETION \* LATITUDE DM ALTEK\* OF UCCATION \* CHARTS \*  
\* NAME \* PUT TRIANGULATION NAMES IN ( ) \* LONGITUDE DP CGT2D\* OFFICE \* FIELD \*AFFECTED\*

\* TANK \* EAST GAS TANK OF TWO \* 18 27 06.76 207.8 NOT \*80E(C)3918\* \* 25668 \*  
\* \* \* 66 05 06.14 180.2 CGT2D\* 02/16/80 \* \* 25670 \*

\* TANK \* WEST GAS TANK OF TWO \* 18 27 05.65 173.7 NOT \*80E(C)3918\* \* DITTO \*  
\* \* \* 66 05 09.13 267.9 CGT2D\* 02/16/80 \* \* \*

\* THE FOLLOWING LANDMARK IS NO LONGER OF LANDMARK VALUE. \*  
\* RECOMMEND DELETION. \*

\* TOWER \* (MIRAMAR TOWER 1939) \* 18 27 29.83 917.1 NOT \*80E(C)3918\* \* 25668 \*  
\* \* \* 66 05 11.21 328.9 CGT2D\* 02/16/80 \* \* 25670 \*

\* THE FOLLOWING LANDMARK WAS NOT VISIBLE ON THE COMPILATION \*  
\* PHOTOS. IT APPEARS TO HAVE BEEN DESTROYED. \*

\* TOWER \* (BRUGAL TOWER 1939) \* 00 00 00.00 .0 NOT \*UNVERIFIED\* \* DITTO \*  
\* \* \* 00 00 00.00 .0 CGT2D\* \* \*

\* \* \* \* \*  
\* \* \* \* \*

\* \* \* \* \*

\* \* \* \* \*

\* \* \* \* \*

\* \* \* \* \*

