TP-00174 THRU 00177

TP-00174 THRU TP-00177

TP-00174

Form 504

U. S. DEPARTMENT OF COMMERCE

COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey: Hydrographic (Photogrammetric)

Field No.: TP-00174 - Office No.: TP-00177

LOCALITY

State: Puerto Rico

General locality: Mayaguez District

Locality: Bahia de Guayanilla

Special Project

1969-71

CHIEF OF PARTY

LIBRARY & ARCHIVES

DATE

USCOMM-DC 5087

ESSA FORM 76-36a (2-70)

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMIN.
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT - DATA RECORD

TYPE OF SURVEY
[X] ORIGINAL
[ ] REVISED

SURVEY TP - 00174
JOB PH - 6903

PHOTOGRAMMETRIC OFFICE
Rockville, Maryland

OFFICER-IN-CHARGE
Jack E. Guth

FOR REVISED SURVEY USE ONLY
ORIGINAL SURVEY DATA:
JOB PH -
DATES:
19 TO 19

I. INSTRUCTIONS DATED

1. OFFICE	2. FIELD
General Instructions - 4/14/69	4/8/69

II. DATUMS

1. HORIZONTAL: [ ] 1927 NORTH AMERICAN — OTHER (Specify): Puerto Rico

2. VERTICAL: [X] MEAN HIGH-WATER [X] MEAN LOW-WATER [ ] MEAN LOWER LOW-WATER [ ] MEAN SEA LEVEL — OTHER (Specify):

3. MAP PROJECTION: Mercator

4. GRID(S): STATE: None; ZONE: None

5. SCALE: 1:5,000 — STATE: None; ZONE: None

III. HISTORY OF OFFICE OPERATIONS

OPERATIONS	NAME	DATE
1. AEROTRIANGULATION — METHOD: Analytical — BY	H.P. Eichert/Saperstein	10/1/69
LANDMARKS AND AIDS BY	Inapplicable	
2. CONTROL AND BRIDGE POINTS — METHOD: Coradi Plotter — PLOTTED BY	P.J. Dempsey	12/1/69
CHECKED BY	P. J. Dempsey	12/1/69
3. STEREOSCOPIC INSTRUMENT COMPILATION — INSTRUMENT: Wild B-8 — SCALE: 1:7,500 — PLANIMETRY BY	E. L. Rolle	3/21/70
CHECKED BY	E. L. Rolle	3/21/70
CONTOURS BY (under-water & soundings)	E. L. Rolle	3/21/70
CHECKED BY	H.R. Brooks/E.L. Rolle	3/21/70
4. MANUSCRIPT DELINEATION — PLANIMETRY BY	E. L. Rolle	4/27/70
CHECKED BY	E. L. Rolle	4/27/70
METHOD: Drafted — CONTOURS BY (under-water & soundings)	E. L. Rolle	4/27/70
CHECKED BY	H.R. Brooks/E.L. Rolle	4/27/70
SCALE: 1:5,000 — HYDRO SUPPORT DATA BY	None	
CHECKED BY	None	
5. OFFICE INSPECTION PRIOR TO FIELD EDIT — BY	Inapplicable	
6. APPLICATION OF FIELD EDIT DATA — BY	~~E. L. Rolle~~	~~9/28/71~~
CHECKED BY		
7. COMPILATION SECTION REVIEW — BY	E. L Rolle	9/28/71
8. FINAL REVIEW — BY		
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH — BY		
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH — BY	F.A. WRIGHT (see page 28)	7/24/74
11. MAP REGISTERED - COASTAL SURVEY SECTION — BY	R. J. Corso	8-12-74

(2)

ESSA FORM 76-36b
(2-70)

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

TP-00174

COMPILATION SOURCES

1. COMPILATION PHOTOGRAPHY

CAMERA(S): "E" and "L"

TIDE STAGE REFERENCE
- ☐ PREDICTED TIDES
- ☐ REFERENCE STATION RECORDS
- ☒ TIDE CONTROLLED PHOTOGRAPHY

TYPES OF PHOTOGRAPHY LEGEND
- (C) COLOR
- (P) PANCHROMATIC
- (I) INFRARED

TIME REFERENCE
ZONE: 8 — ☒ STANDARD ☐ DAYLIGHT
MERIDIAN: 60th

NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE
69-E(C)-160 & 161	5/3/69	1625	1:15,000	MLW
69-E(C)-181 & 182	5/3/69	1640	1:15,000	MLW

Infrared photography used in bridging only.
see page 19 Item 26

REMARKS

2. SOURCE OF MEAN HIGH-WATER LINE:

Aerial photography dated 5/3/69

3. SOURCE OF ~~MEAN LOW-WATER OR MEAN LOWER LOW-WATER LINE.~~ underwater features

Tide controlled aerial photography. Refer to the enclosed Photogrammetric Plot 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
None	TP-00175	TP-00176	None

REMARKS: As this is a special project, no attempt was made to make junction with other contemporary surveys to the north and west.

USCOMM-DC 46200-P70

(3)

ESSA FORM 76-36c
(2-70)

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

TP-00174

HISTORY OF FIELD OPERATIONS

I. ☐ FIELD INSPECTION OPERATION ☐ FIELD EDIT OPERATION Identification of horizontal & vertical control only

OPERATION		NAME	DATE
1. CHIEF OF FIELD PARTY		J. K. Wilson	4/69
2. HORIZONTAL CONTROL	RECOVERED BY		
	ESTABLISHED BY		
	PRE-MARKED OR IDENTIFIED BY	R. E. Kesselring	4/69
3. VERTICAL CONTROL	RECOVERED BY		
	ESTABLISHED BY		
	PRE-MARKED OR IDENTIFIED BY	R. E. Kesselring	4/69
4. ~~LANDMARKS AND AIDS TO NAVIGATION~~ Hydro Signal	RECOVERED (*Triangulation Stations*) BY		
	LOCATED (*Field Methods*) BY		
	IDENTIFIED BY	R. E. Kesselring	4/69 ?
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION ☐ COMPLETE ☐ SPECIFIC NAMES ONLY ☒ NO INVESTIGATION — BY	None	
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY	None	
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY	None	

II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED: Form C&GS 152

2. VERTICAL CONTROL IDENTIFIED: Form C&GS-152 & Hydro survey

PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION
69-E(C)-180	FAR, 1969 (sub. pt.)	69-E(C)-224	hydro signal 509 (passpoint 99509)

3. PHOTO NUMBERS (*Clarification of details*)

None

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME
69-E(C)-224	Hydro Signal 509		

5. GEOGRAPHIC NAMES: ☐ REPORT ☒ NONE

6. 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*)

1 book labeled PH-6903 Field Notes

(4)

ESSA FORM 76-36d
(2-70)

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

TP-00174

RECORD OF SURVEY USE

I. MANUSCRIPT COPIES

COMPILATION STAGES			DATE MANUSCRIPT FORWARDED	
DATA COMPILED	DATE	REMARKS	MARINE CHARTS	HYDRO SUPPORT
Underwater contours, sounding data, rock info and planimetry	9/27/71			

II. LANDMARKS AND AIDS TO NAVIGATION

1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH

NUMBER	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED	REMARKS

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 C&GS 567 SUBMITTED BY FIELD PARTIES.
3. ☐ SOURCE DATA *(except for Geographic Names Report)* AS LISTED IN SECTION II, ESSA FORM 76-36C. ACCOUNT FOR EXCEPTIONS:

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

IV. SURVEY REVISION *(This section shall be completed when a revised survey is registered.)*

	SURVEY NUMBER	JOB NUMBER	REMARKS
FIRST REVISION	TP - (2)	PH -	
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	
SECOND REVISION	SURVEY NUMBER TP - (3)	JOB NUMBER PH-	REMARKS
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	
THIRD REVISION	SURVEY NUMBER TP - (4)	JOB NUMBER PH -	REMARKS
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	

USCOMM-DC 46200-P70

(5)

ESSA FORM 76-36a (2-70)

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMIN.
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT - DATA RECORD

TYPE OF SURVEY
[X] ORIGINAL
[ ] REVISED

SURVEY TP - 00175
JOB PH - 6903

PHOTOGRAMMETRIC OFFICE
Rockville, Maryland

OFFICER-IN-CHARGE
Jack E. Guth

FOR REVISED SURVEY USE ONLY
ORIGINAL SURVEY DATA:
JOB PH -
DATES:
19 TO 19

I. INSTRUCTIONS DATED

1. OFFICE	2. FIELD
General Instructions 4/14/69	4/8/69

II. DATUMS

1. HORIZONTAL: [ ] 1927 NORTH AMERICAN — OTHER (Specify): Puerto Rico

2. VERTICAL: [ ] MEAN HIGH-WATER [X] MEAN LOW-WATER [ ] MEAN LOWER LOW-WATER [ ] MEAN SEA LEVEL — OTHER (Specify):

3. MAP PROJECTION: Mercator

4. GRID(S): STATE None, ZONE None

5. SCALE: 1:5,000 — STATE None, ZONE None

III. HISTORY OF OFFICE OPERATIONS

OPERATIONS		NAME	DATE
1. AEROTRIANGULATION METHOD: Analytical	BY	H.P. Eichert/II Saperstein	10/1/69
	LANDMARKS AND AIDS BY	Inapplicable	
2. CONTROL AND BRIDGE POINTS METHOD: Coradi Plotter	PLOTTED BY	P. J. Dempsey	12/1/69
	CHECKED BY	P. J. Dempsey	12/1/69
3. STEREOSCOPIC INSTRUMENT COMPILATION INSTRUMENT: Wild B8 SCALE: 1:7,500	PLANIMETRY BY	E. L. Rolle	1/15/70
	CHECKED BY	E. L. Rolle	1/15/70
	CONTOURS BY	E. L. Rolle	1/15/70
	CHECKED BY	H.R. Brooks-EL. Rolle	1/15/70
4. MANUSCRIPT DELINEATION METHOD: Drafted SCALE: 1:5,000	PLANIMETRY BY	E. L. Rolle	4/10/70
	CHECKED BY	E. L. Rolle	4/10/70
	CONTOURS BY	E. L. Rolle	4/10/70
	CHECKED BY	H.R. Brooks-E.L. Rolle	4/10/70
	HYDRO SUPPORT DATA BY	E. L. Rolle	4/10/70
	CHECKED BY	H.R. Brooks-E.L. Rolle	4/10/70
5. OFFICE INSPECTION PRIOR TO FIELD EDIT	BY	None	
6. APPLICATION OF FIELD EDIT DATA	BY	None	
	CHECKED BY	Inapplicable	
7. COMPILATION SECTION REVIEW	BY	E. L. Rolle	9/24/71
8. FINAL REVIEW	BY		
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH	BY		
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH	BY	F. Wright (see page 28)	7/24/74
11. MAP REGISTERED - COASTAL SURVEY SECTION	BY		

ESSA FORM 76-36A SUPERSEDES FORM C&GS 181 SERIES USCOMM-DC 46200-P70

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ESSA FORM 76-36b
(2-70)

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

TP-00175

COMPILATION SOURCES

1. COMPILATION PHOTOGRAPHY

CAMERA(S): "E" and "L"

TIDE STAGE REFERENCE
- [ ] PREDICTED TIDES
- [ ] REFERENCE STATION RECORDS
- [X] TIDE CONTROLLED PHOTOGRAPHY

TYPES OF PHOTOGRAPHY LEGEND
(C) COLOR
(P) PANCHROMATIC
(I) INFRARED

TIME REFERENCE
ZONE: 8 — [X] STANDARD
MERIDIAN: 60th — [ ] DAYLIGHT

NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE
69-E(C)-153 & 154	5/3/69	1619	1:15,000	MLW
69-E(C)-174	5/3/69	1635	1:15,000	MLW
69-E(C)-194-196	5/3/69	1645	1:15,000	MLW

Infrared photography used in bridging only.
See Page 19 Item 26

REMARKS

2. SOURCE OF MEAN HIGH-WATER LINE:

Aerial photography dated 5/3/69

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

Tide-controlled aerial photography. Refer to the enclosed Photogrammetric Plot 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
None	None	TP-00177	TP-00174

REMARKS
As this is a special project, no attempt was made to make junction with other contemporary surveys to the north and east.

USCOMM-DC 46200-P70

(7)

ESSA FORM 76-36c
(2-70)

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

TP-00175

HISTORY OF FIELD OPERATIONS

I. ☐ FIELD INSPECTION OPERATION ☐ FIELD EDIT OPERATION Identification of horizontal control only

OPERATION		NAME	DATE
1. CHIEF OF FIELD PARTY		J. K. Wilson	April '69
2. HORIZONTAL CONTROL	RECOVERED BY		
	ESTABLISHED BY		
	PRE-MARKED OR IDENTIFIED BY	R. E. Kesselring	April '69
3. VERTICAL CONTROL	RECOVERED BY		
	ESTABLISHED BY	None	
	PRE-MARKED OR IDENTIFIED BY		
4. LANDMARKS AND AIDS TO NAVIGATION	RECOVERED *(Triangulation Stations)* BY		
	LOCATED *(Field Methods)* BY	None	
	IDENTIFIED BY		
5. GEOGRAPHIC NAMES *INVESTIGATION*	TYPE OF INVESTIGATION ☐ COMPLETE ☐ SPECIFIC NAMES ONLY ☒ NO INVESTIGATION	BY None	
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY	None	
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY	None	

II. *SOURCE DATA*

1. HORIZONTAL CONTROL IDENTIFIED
From C&GS 152

2. VERTICAL CONTROL IDENTIFIED
None

PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION
69-E(C)-194	GOT, 1969 (substation)		
69-E(C)-196	TURN 2, 1966		

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 ☒ NONE

6. BOUNDARY AND LIMITS: ☐ REPORT ☒ NONE

7. SUPPLEMENTAL MAPS AND PLANS

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

1 book labeled PH-6903, Field Notes

USCOMM-DC 46200-P70

P

(8)

ESSA FORM 76-36d
(2-70)

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

TP-00175

RECORD OF SURVEY USE

I. MANUSCRIPT COPIES

COMPILATION STAGES			DATE MANUSCRIPT FORWARDED	
DATA COMPILED	DATE	REMARKS	MARINE CHARTS	HYDRO SUPPORT
Underwater contours, sounding data, rock info and planimetry	9/28/71			

II. LANDMARKS AND AIDS TO NAVIGATION

1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH

NUMBER	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED	REMARKS

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 C&GS 567 SUBMITTED BY FIELD PARTIES.
3. ☐ SOURCE DATA *(except for Geographic Names Report)* AS LISTED IN SECTION II, ESSA FORM 76-36C. ACCOUNT FOR EXCEPTIONS:

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

IV. SURVEY REVISION *(This section shall be completed when a revised survey is registered.)*

	SURVEY NUMBER	JOB NUMBER	REMARKS
FIRST REVISION	TP - (2)	PH -	
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	
SECOND REVISION	SURVEY NUMBER TP - (3)	JOB NUMBER PH-	REMARKS
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	
THIRD REVISION	SURVEY NUMBER TP - (4)	JOB NUMBER PH -	REMARKS
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	

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ESSA FORM 76-36a (2-70)

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMIN.
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT - DATA RECORD

TYPE OF SURVEY
[X] ORIGINAL
[ ] REVISED

SURVEY TP - 00176
JOB PH - 6903

PHOTOGRAMMETRIC OFFICE
Rockville, Maryland

OFFICER-IN-CHARGE
Jack E. Guth

FOR REVISED SURVEY USE ONLY
ORIGINAL SURVEY DATA:
JOB PH - _____
DATES:
19_____ TO 19_____

I. INSTRUCTIONS DATED

1. OFFICE	2. FIELD
General Instructions 4/14/69	4/8/69

II. DATUMS

1. HORIZONTAL: [ ] 1927 NORTH AMERICAN — OTHER (Specify): Puerto Rico

2. VERTICAL: [X] MEAN HIGH-WATER [X] MEAN LOW-WATER [ ] MEAN LOWER LOW-WATER [ ] MEAN SEA LEVEL — OTHER (Specify):

3. MAP PROJECTION: Mercator

4. GRID(S)

	STATE	ZONE
	None	None

5. SCALE: 1:5,000

STATE	ZONE
None	None

III. HISTORY OF OFFICE OPERATIONS

OPERATIONS		NAME	DATE
1. AEROTRIANGULATION METHOD: Analytical	BY	H. Eichert/I. Saperstein	10/1/69
	LANDMARKS AND AIDS BY	Inapplicable	
2. CONTROL AND BRIDGE POINTS METHOD: Coradi Plotter	PLOTTED BY	P. J. Dempsey	12/1/69
	CHECKED BY	P. J. Dempsey	12/1/69
3. STEREOSCOPIC INSTRUMENT COMPILATION INSTRUMENT: B-8 SCALE: 1:7,500	PLANIMETRY BY	E. L. Rolle	3/9/70
	CHECKED BY	E. L. Rolle	3/9/70
underwater & soundings	CONTOURS BY	E. L. Rolle	3/9/70
	CHECKED BY	H.R. Brooks/E.L. Rolle	3/9/70
4. MANUSCRIPT DELINEATION	PLANIMETRY BY	E. L. Rolle	4/21/70
	CHECKED BY	E. L. Rolle	4/21/70
METHOD: Drafted underwater & soundings	CONTOURS BY	E. L. Rolle	4/21/70
	CHECKED BY	H.R. Brooks/E.L. Rolle	4/21/70
	HYDRO SUPPORT DATA BY	E. L. Rolle	4/21/70
SCALE: 1:5,000	CHECKED BY	H. R. Brooks/E.L. Rolle	4/21/70
5. OFFICE INSPECTION PRIOR TO FIELD EDIT	BY	None	
6. APPLICATION OF FIELD EDIT DATA	BY	None	
	CHECKED BY	Inapplicable	
7. COMPILATION SECTION REVIEW	BY	E. L. Rolle	9/23/71
8. FINAL REVIEW	BY		
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH	BY		
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH	BY	F. Wright (see page 28)	7-24-74
11. MAP REGISTERED - COASTAL SURVEY SECTION	BY		

ESSA FORM 76-36A SUPERSEDES FORM C&GS 181 SERIES USCOMM-DC 46200-P70

(10)

ESSA FORM 76-36b
(2-70)

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

TP-00176

COMPILATION SOURCES

1. COMPILATION PHOTOGRAPHY

CAMERA(S): "E" and "L"

TIDE STAGE REFERENCE
- ☐ PREDICTED TIDES
- ☐ REFERENCE STATION RECORDS
- ☒ TIDE CONTROLLED PHOTOGRAPHY

TYPES OF PHOTOGRAPHY LEGEND
(C) COLOR
(P) PANCHROMATIC
(I) INFRARED

TIME REFERENCE
ZONE: 8 ☒ STANDARD ☐ DAYLIGHT
MERIDIAN: 60th

NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE
69-E(C)-183-185	5/3/69	1640	1:15,000	MLW
69-E(C)-221 & 222	5/3/69	1657	1:15,000	MLW

Infrared photography used in bridging only.
see Item 26, Page 19

REMARKS

2. SOURCE OF MEAN HIGH-WATER LINE:

Aerial photography dated 5/3/69

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

Tide-controlled aerial photography. Refer to the enclosed Photogrammetric Plot 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
TP-00174	TP-00177	None	None

REMARKS: As this is a special project, no attempt was made to make junction with other contemporary surveys to the south and west.

USCOMM-DC 46200-P70

(11)

ESSA FORM 76-36c
(2-70)

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

TP-00176

HISTORY OF FIELD OPERATIONS

I. ☐ FIELD INSPECTION OPERATION ☐ FIELD EDIT OPERATION Identification of hori. & vertical control only

OPERATION		NAME	DATE
1. CHIEF OF FIELD PARTY		J. K. Wilson	April '69
2. HORIZONTAL CONTROL	RECOVERED BY		
	ESTABLISHED BY		
	PRE-MARKED OR IDENTIFIED BY	R. E. Kesselring	April '69
3. VERTICAL CONTROL	RECOVERED BY		
	ESTABLISHED BY		
	PRE-MARKED OR IDENTIFIED BY	R. E. Kesselring	April '69
4. ~~LANDMARKS AND AIDS TO NAVIGATION~~ Hydro Signal	RECOVERED (*Triangulation Stations*) BY		
	LOCATED (*Field Methods*) BY		
	IDENTIFIED BY	R. E. Kesselring	April '69
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION ☐ COMPLETE ☐ SPECIFIC NAMES ONLY ☒ NO INVESTIGATION	BY None	
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY	None	
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY	None	

II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED
From C&GS-152

PHOTO NUMBER	STATION NAME
69-E(C)-221	NUN, 1969

2. VERTICAL CONTROL IDENTIFIED

PHOTO NUMBER	STATION DESIGNATION
69-E(C)-221	Float No. 1 (pass point 99221)
69-E(C)-183	Float No. 2 (pass point 99222)
69-E(C)-182	Float No. 3 (pass point 99223)
69-E(C)-182	Hydro Signal 510 (pass point 99510)
69-E(C)-183	Hydro Signal 514 (pass point 99514

3. PHOTO NUMBERS (*Clarification of details*)
None

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

PHOTO NUMBER	OBJECT NAME
69-E(C)-182	Hydro Signal 510
69-E(C)-183	Hydro Signal 514

PHOTO NUMBER	OBJECT NAME

5. GEOGRAPHIC NAMES: ☐ REPORT ☒ NONE

6. 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*)
1 book labeled PH-6903 Field Notes

USCOMM-DC 46200-P70

(12)

ESSA FORM 76-36d
(2-70)

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

TP-00176

RECORD OF SURVEY USE

I. MANUSCRIPT COPIES

COMPILATION STAGES			DATE MANUSCRIPT FORWARDED	
DATA COMPILED	DATE	REMARKS	MARINE CHARTS	HYDRO SUPPORT
Underwater contours, sounding data, rock info and planimetry	9/25/71			

II. LANDMARKS AND AIDS TO NAVIGATION

1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH

NUMBER	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED	REMARKS

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 C&GS 567 SUBMITTED BY FIELD PARTIES.
3. ☐ SOURCE DATA *(except for Geographic Names Report)* AS LISTED IN SECTION II, ESSA FORM 76-36C. ACCOUNT FOR EXCEPTIONS:

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

IV. SURVEY REVISION *(This section shall be completed when a revised survey is registered.)*

	SURVEY NUMBER	JOB NUMBER	REMARKS
FIRST REVISION	TP - (2)	PH -	
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	
SECOND REVISION	SURVEY NUMBER TP - (3)	JOB NUMBER PH-	REMARKS
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	
THIRD REVISION	SURVEY NUMBER TP - (4)	JOB NUMBER PH -	REMARKS
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	

USCOMM-DC 46200-P70

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ESSA FORM 76-36a (2-70)

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMIN.
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT - DATA RECORD

TYPE OF SURVEY
[X] ORIGINAL
[ ] REVISED

SURVEY TP - 00177
JOB PH - 6903

PHOTOGRAMMETRIC OFFICE
Rockville, Maryland

OFFICER-IN-CHARGE
Jack E. Guth

FOR REVISED SURVEY USE ONLY
ORIGINAL SURVEY DATA:
JOB PH -
DATES:
19 TO 19

I. INSTRUCTIONS DATED

1. OFFICE	2. FIELD
General Instructions 4/14/69	4/8/69

II. DATUMS

1. HORIZONTAL: [ ] 1927 NORTH AMERICAN
OTHER (Specify): Puerto Rico

2. VERTICAL: [X] MEAN HIGH-WATER [X] MEAN LOW-WATER [ ] MEAN LOWER LOW-WATER [ ] MEAN SEA LEVEL
OTHER (Specify):

3. MAP PROJECTION: Mercator

4. GRID(S)

STATE	ZONE
None	None
None	None

5. SCALE: 1:5,000

III. HISTORY OF OFFICE OPERATIONS

OPERATIONS		NAME	DATE
1. AEROTRIANGULATION METHOD: Analytical	BY	H.P. Eichert/Saperstein	10/1/69
	LANDMARKS AND AIDS BY	Inapplicable	
2. CONTROL AND BRIDGE POINTS METHOD: Coradi Plotter	PLOTTED BY	P.J. Dempsey	12/1/69
	CHECKED BY	P.J. Dempsey	12/1/69
3. STEREOSCOPIC INSTRUMENT COMPILATION INSTRUMENT: B-8 SCALE: 1:7,500	PLANIMETRY BY	E. L. Rolle	12/15/69
	CHECKED BY	E.L. Rolle	12/15/69
underwater & soundings	CONTOURS BY	E.L. Rolle	12/15/69
	CHECKED BY	H.R. Brooks/E.L. Rolle	12/15/69
4. MANUSCRIPT DELINEATION	PLANIMETRY BY	E.L. Rolle	4/3/70
	CHECKED BY	E.L. Rolle	4/3/70
METHOD: Drafted	CONTOURS BY	E.L. Rolle	4/3/70
underwater & soundings	CHECKED BY	H.R. Brooks/E.L. Rolle	4/3/70
SCALE: 1:5,000	HYDRO SUPPORT DATA BY	E.L. Rolle	4/3/70
	CHECKED BY	H.R. Brooks/E.L. Rolle	4/3/70
5. OFFICE INSPECTION PRIOR TO FIELD EDIT	BY	None	
6. APPLICATION OF FIELD EDIT DATA	BY	None	
	CHECKED BY	Inapplicable	
7. COMPILATION SECTION REVIEW	BY	E.L. Rolle	9/29/71
8. FINAL REVIEW	BY		
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH	BY		
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH	BY	F. Wright (see page 28	7-24-74
11. MAP REGISTERED - COASTAL SURVEY SECTION	BY		

ESSA FORM 76-36A SUPERSEDES FORM C&GS 181 SERIES

USCOMM-DC 46200-P70

(14)

ESSA FORM 76-36b
(2-70)

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

T-00177

COMPILATION SOURCES

1. COMPILATION PHOTOGRAPHY

CAMERA(S): "E" and "L"

TIDE STAGE REFERENCE
- ☐ PREDICTED TIDES
- ☐ REFERENCE STATION RECORDS
- ☒ TIDE CONTROLLED PHOTOGRAPHY

TYPES OF PHOTOGRAPHY LEGEND
- (C) COLOR
- (P) PANCHROMATIC
- (I) INFRARED

TIME REFERENCE
ZONE: 8 — ☒ STANDARD ☐ DAYLIGHT
MERIDIAN: 60th

NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE
69-E(C)-150-152	5/3/69	1618	1:15,000	MLW
69-E(C)-192&193	5/3/69	1645	1:15,000	MLW
69-E(C)-9960	4/3/69	0809	1:15,000	MLW

Infrared photography used in bridging only.
See page 19, Item 26

REMARKS

2. SOURCE OF MEAN HIGH-WATER LINE:

Aerial photography dated 5/3/69

3. SOURCE OF ~~MEAN LOW-WATER OR MEAN LOWER LOW-WATER LINE.~~ UNDERWATER Features

Tide-controlled aerial photography. Refer to the enclose Photogrammetric Plot 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
TP-00175	None	None	TP-00176

REMARKS
As this is a special project, no attempt was made to make junction with other contemporary surveys to the south and the east.

USCOMM-DC 46200-P70

(15)

ESSA FORM 76-36c
(2-70)

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

TP-00177

HISTORY OF FIELD OPERATIONS

I. ☐ FIELD INSPECTION OPERATION ☐ FIELD EDIT OPERATION Identification of hori. & vert. control only.

OPERATION		NAME	DATE
1. CHIEF OF FIELD PARTY		J. K. Wilson	5/69
2. HORIZONTAL CONTROL	RECOVERED BY		
	ESTABLISHED BY		
	PRE-MARKED OR IDENTIFIED BY	R. E. Kesselring	5/69
3. VERTICAL CONTROL	RECOVERED BY		
	ESTABLISHED BY		
	PRE-MARKED OR IDENTIFIED BY	R. E. Kesselring	5/69
4. LANDMARKS AND AIDS TO NAVIGATION	RECOVERED (*Triangulation Stations*) BY		
	LOCATED (*Field Methods*) BY		
	IDENTIFIED BY	~~R. E. Kesselring~~	~~5/69~~
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION ☐ COMPLETE ☐ SPECIFIC NAMES ONLY ☒ NO INVESTIGATION — BY	None	
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY	None	
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY	None	

II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED
Form C&GS-152

2. VERTICAL CONTROL IDENTIFIED

PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION
69(E)192	MARIA 2, 1969	69E(C)192	Float #4 (pass point 99224)
		69-E(C)151	Float #5 (pass point 99225)

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 ☒ NONE

6. BOUNDARY AND LIMITS: ☐ REPORT ☐ NONE

7. SUPPLEMENTAL MAPS AND PLANS

8. OTHER FIELD RECORDS (*Sketch books, etc.* **DO NOT** *list data submitted to the Geodesy Division*)
1 book labeled PH-6903, Field Notes

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(16)

ESSA FORM 76-36d
(2-70)

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

TP-00177
RECORD OF SURVEY USE

I. MANUSCRIPT COPIES

COMPILATION STAGES			DATE MANUSCRIPT FORWARDED	
DATA COMPILED	DATE	REMARKS	MARINE CHARTS	HYDRO SUPPORT
Underwater contours, sounding data, rock info and planimetry	9/28/71			

II. LANDMARKS AND AIDS TO NAVIGATION

1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH

NUMBER	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED	REMARKS

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

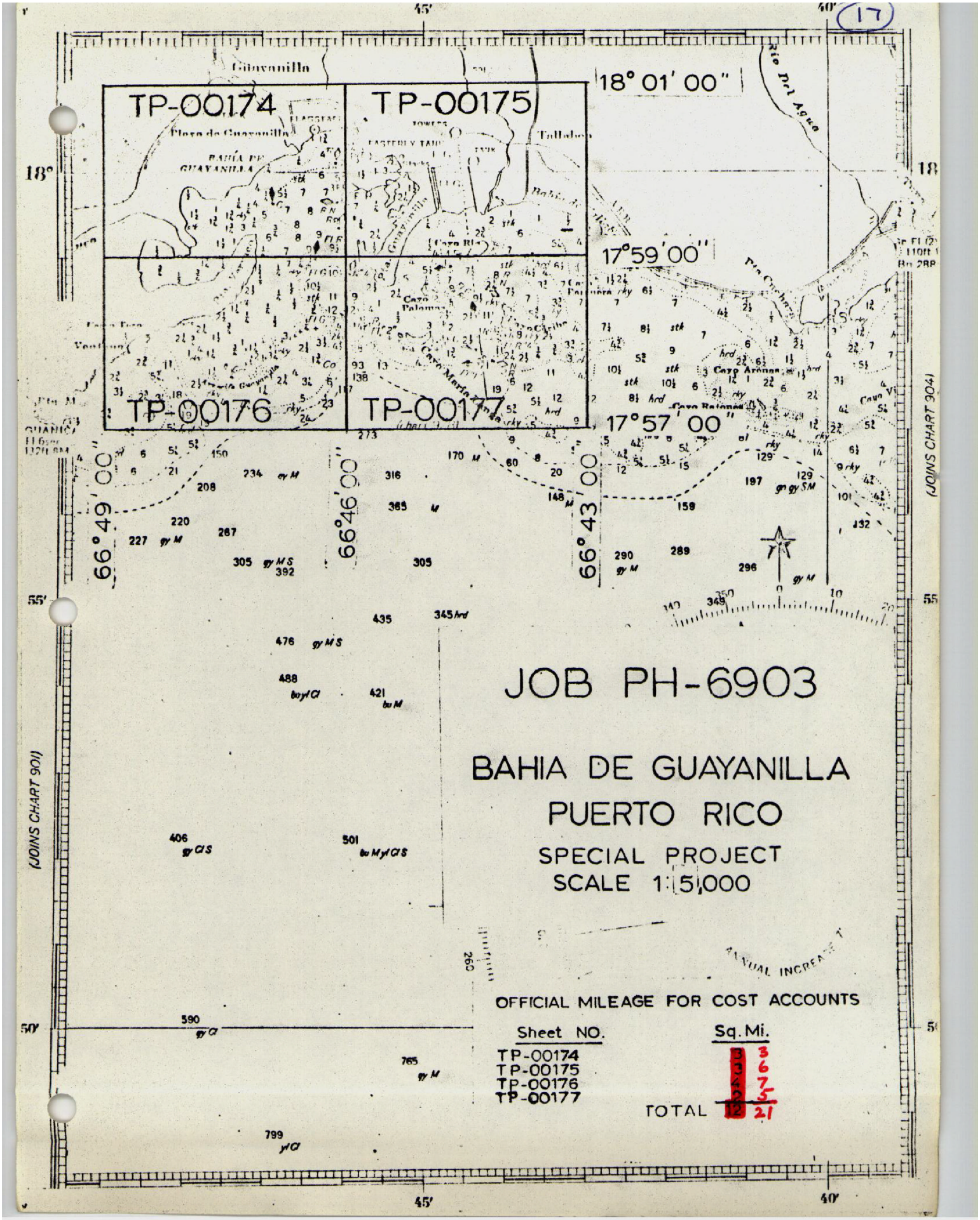
1. ☐ BRIDGING PHOTOGRAPHS; ☐ DUPLICATE BRIDGING REPORT; ☐ COMPUTER READOUTS.
2. ☐ CONTROL STATION IDENTIFICATION CARDS; ☐ FORM C&GS 567 SUBMITTED BY FIELD PARTIES.
3. ☐ SOURCE DATA *(except for Geographic Names Report)* AS LISTED IN SECTION II, ESSA FORM 76-36C. ACCOUNT FOR EXCEPTIONS:

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

IV. SURVEY REVISION *(This section shall be completed when a revised survey is registered.)*

	SURVEY NUMBER	JOB NUMBER	REMARKS
FIRST REVISION	TP - (2)	PH -	
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	
SECOND REVISION	SURVEY NUMBER TP - (3)	JOB NUMBER PH-	REMARKS
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	
THIRD REVISION	SURVEY NUMBER TP - (4)	JOB NUMBER PH -	REMARKS
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	

USCOMM-DC 46200-P70



JOB PH-6903

BAHIA DE GUAYANILLA
PUERTO RICO

SPECIAL PROJECT
SCALE 1:5,000

OFFICIAL MILEAGE FOR COST ACCOUNTS

Sheet NO.	Sq. Mi.
TP-00174	3 3
TP-00175	3 6
TP-00176	6 7
TP-00177	9 5
TOTAL	12 21

Photogrammetric Plot Report
Job PH-6903
Bahia de Guayanilla, Puerto Rico

October 1969

21. Purpose

The purpose of this pilot project is to test the feasibility of furnishing hydrographic surveys by photogrammetric methods. An area in Puerto Rico, Bahia de Guayanilla, was selected for the test.

22. Method

Seven (7) strips of 1:15,000 color photographs were bridged by analytical aerotriangulation methods, using a forty (40) photograph block adjustment.

23. Control

Eight (8) horizontal and twenty-four (24) vertical control stations were weighted in the final block adjustment. Seven horizontal stations were targeted and one was a natural object.

Two types of vertical control points were used:

1. Underwater points near floating targets and fixed hydro targets, depths of which were field determined, and

2. Shoreline points using infrared photography taken at low water and transferred to the color bridging photography.

The elevations of all underwater points were reduced from tide staff readings to the datum required (low water). The refined coordinates for these underwater points were corrected for refraction.

Shoreline point 42201 has an error of +3 feet. Upon closer examination it was found that the point was drilled on the side of a bush and evidently thus measured. Point 42201 should be discarded.

24. Photography

The definition and quality of photography taken with the RC-8 "L" camera were good, except for occasional sun spots which made measuring underwater points difficult.

25. Accuracy

The RMS for the block is 10.3 micrometers, with an RMS vertical error of 0.16 meters. Horizontal errors were not foreseen as a problem and as they are insignificantly small are not plotable at map scale, require no special mention.

26. Conclusions and Recommendations

The use of infrared photography flown in tandem with color for the purpose of furnishing vertical control at the water line introduced some inaccuracies. No difficulty was encountered transferring shoreline points from the infrared to the color when flown in tandem, but transferring the point to adjoining color strips proved very difficult because of wave action.

In future jobs of this kind, it might prove worthwhile to use targets to determine elevations of vertical control points needed. A target could be placed near the shore and a hand level shot from the waters edge to target, with date and time recorded, would determine the elevation.

In order to get depths in water areas where vertical control is needed, concrete blocks painted white could be placed in the water. In all probability a target could be seen underwater to a depth of ten feet or more.

Respectively submitted,

I. I. Saperstein

Approved and forwarded,

Henry P. Eichert
Chief, Aerotriangulation Section

FORM C&GS-164
4-68)
JSCOMM-DC
10318-P68

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT CONTROL RECORD

MAP T- TP-00174 PROJECT NO. PH-6903 SCALE OF MAP 1:5,000 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR Y COORDINATE LONGITUDE OR X COORDINATE	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS *(1 Ft. = 3048006 meter)* FORWARD	(BACK)
	PH-6903 Field Notes		17° 59' 57.82"		
FAR 1969			66° 45' 26.70"		
Sub point FAR 1969	IBM Readout		60,386.169'		
			378,128.960'		

FORM C&GS-164
(4-68)
USCOMM-DC
50318-P68

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT CONTROL RECORD

MAP T- TP-00175 PROJECT NO. PH-6903 SCALE OF MAP 1:5,000 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR Y COORDINATE LONGITUDE OR X COORDINATE	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS (1 Ft. = 3048006 meter) FORWARD (BACK)
	PH-6903		55,940.05'	
GOT 1969	Field Notes		385,278.49'	
	IBM		61,889.741'	
TURN 2, 1966	Readout		386,662.643	
	IBM		55,917.449'	
Subpoint GOT 1969	Readout		385,286.510'	

FORM C&GS-164
4-68)
JSCOMM-DC
50318-P68

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT CONTROL RECORD

MAP T- TP-00176 PROJECT NO. PH-6903 SCALE OF MAP 1:5,000 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR Y COORDINATE LONGITUDE OR X COORDINATE	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS *(1 Ft. = 3048006 meter)* FORWARD (BACK)
NUN 1969	PH-6903 Field Notes		17°57'43.90" 66°47'30.71"	
NUN 1969	IBM Readout		47,912.070' 375,397.331'	

FORM C&GS-164
(4-68)
USCOMM-DC
50318-P68

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT CONTROL RECORD

MAP T- TP-00177 PROJECT NO. PH-6903 SCALE OF MAP 1:5,000 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR Y COORDINATE LONGITUDE OR X COORDINATE	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS (1 Ft. = 3048006 meter) FORWARD	(BACK)
MARIA 2, 1969	PH-6903 Field Notes		17°58'07.051"		
			66°45'17.515"		
Subpoint MARIA 2, 1969	IBM Readout		49,206.710'		
			388,243.828'		

COMPUTED BY DATE CHECKED BY DATE

23

Compilation Report
TP-00174 through TP-00177

These four surveys are to be compared with the latest hydrographic surveys of the area. The purpose for this special project is to analyze the possibilities for providing hydrographic surveys by photogrammetric methods.

31. Delineation

The Wild B-8 stereoscopic instrument was used to compile the four surveys.

32. Control

Refer to the Photogrammetric Plot Report bound with this report.

The identification, density and placement of horizontal and vertical control was adequate.

33. Supplemental Data

Inapplicable.

34. Contours (Underwater) and Drainage

All drainage on these four manuscripts is from office interpretation of the photographs.

The quality of the photographs and diapositives covering the following four surveys of this project was good except as noted in the following paragraphs.

TP-00174

The 6', 12' and 18' underwater contours (depth curves) and underwater spot elevations (soundings), were compiled in the areas not affected by a suspended silt and pollution condition of the water. The poor water conditions rendered it impossible to compile depth curves in the lagoon area west of Punta Verraco and the north shore extending from the lagoon to the eastern limits of this survey. If the water conditions had been favorable, this survey could have been compiled with a minimum of effort.

TP-00175

The 3', 6', 9' and 12' underwater contours and underwater spot elevations were compiled in the areas not affected by the suspended silt referred to in survey TP-00174.

An attempt was made to overcome the silting conditions by setting additional stereomodels in various ways. A stereomodel was cleared, leveled and horizontalized using color transparencies 69-E(C)-9960, dated April 30, 1969, time 0810 and 69-E(C)-174, dated May 3, 1969, time 1635. A few additional underwater spot elevations were obtained in this solution, but were considered weak.

Another stereomodel, using photography from two separate flights, 69-E(C)-175 and 69-E(C)-195, was set with negative results. Stereomodel 69-E(C)-195 and 69-E(C)-197, eliminating photo 69-E(C)-196, was also set, but it too was unproductive.

As in TP-00174, this survey could have been more completely compiled but for the poor condition of the water.

TP-00176

The 6', 12' and 18' underwater contours, underwater spot elevations, sunken rocks with spot elevations and rocks awash were compiled. In stereomodel 69-E(C)-182 and 69-E(C)-183, some difficulty was encountered compiling contours in an area where the bottom characteristics were grass and sticky mud. The grass and mud area appeared as a very soft part of an otherwise solid stereomodel.

Sunglare in stereomodels 69-E(C)-183 through 185 and the pollution in model 69-E(C)-221 and 69-E(C)-222 at latitude 17°58'15" and longitude 66°47'30", made it impossible to complete the 6' and 12' underwater curves in this small area.

TP-00177

The 3', 6', 9',12' and 15' underwater contours, underwater spot elevations, sunken rocks with spot elevations and rocks awash were compiled. The stereomodels set in this survey were soft below the 9' underwater curve, limiting the number of readable underwater spot elevations.

An additional model, 69-E(C)-9788 and 69-E(C)-9789 (1:10,000 scale transparencies) was set to supplement the underwater compilation, but no additional information was obtained.

The 6' and 9' underwater curves in the area of latitude 17°58'30" and longitude 66°45'30" are considered to be very weak.

Note:

Refraction corrections were applied to all of the underwater curves and underwater spot elevation compiled on the four manuscripts of this special project.

35. Shoreline and Alongshore Details

There was no shoreline inspection. The shoreline was delineated from office interpretation of the photographs. The mean low-water line was not delineated.

36. Offshore Details

Refer to Item 34 of this Compilation Report.

37. Landmarks and Aids

All landmarks and aids were located by office interpretation of the photographs.

No Form 567 submitted.

38. Control for Future Surveys

No Form 524 submitted.

39. Junctions

These four surveys have been joined together and the junctions are in agreement. As this is a special project, no attempt was made to make a junction with any other contemporary survey in the area.

40. Horizontal and Vertical Accuracy

No comment.

41. Conclusions and Recommendations

Refer to Item 26 of the Photogrammetric Plot Report bound with this report.

Underwater compilation was impeded in many areas throughout this project due to the polluted conditions of the water. Suspended silt in the water was evident in most of the stereomodels, limiting the penetration capabilities of the photography.

In future jobs involving water penetration, it would prove valuable to visually survey the area to be mapped, before aerial photography is recommended.

42. through 45. Not applicable.

46. Comparison with Existing Maps

No comparison made.

47. Comparison with Nautical Charts

Comparison has been made with Chart No. 928, scale 1:10,000, 6th Edition, December 16, 1968.

Items to be applied to Nautical Charts immediately:
Copies of these four surveys should be forwarded to the Marine Chart Division for comparison with the most recent hydrographic surveys in the area.

Items to be carried forward: None

Respectfully submitted,

Edward L. Rolle

Edward L. Rolle
Cartographer
7/10/74

Approved and Forwarded,

Harold R. Brooks

Harold R. Brooks
Chief, Revision Surveys Section

(28)

Quality Control Report
(Map Registration)

Data was forwarded for registration without a thorough examination.

Submitted by,

Frank Wright

July 1974

Approved:

Chief, Photogrammetric Branch

Chief, Coastal Mapping Division