9516

Diag. Cht. No. 905

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT
(HYDROGRAPHIC)

Type of Survey HYDROGRAPHIC

Field No. WH-20-1-75

Office No. H-9516

LOCALITY

State U.S. VIRGIN ISLANDS

General Locality NORTH OF ST. THOMAS

Locality BARRACOUTA BANKS

1975

CHIEF OF PARTY
R. A. TRAUSCHKE

LIBRARY & ARCHIVES

DATE 10-27-76

☆ U.S. GOV. PRINTING OFFICE: 1975—668-353

Area 3
Chart:
904
905
920

FORM C&GS-537 (5-66)

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

REGISTER NO.

HYDROGRAPHIC TITLE SHEET

H-9516

INSTRUCTIONS - The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

FIELD NO.
WH-20-1-75

State U.S. VIRGIN ISLANDS

General locality ~~BARRACOUTA BANKS~~ NORTH OF ST. THOMAS

Locality ~~AREA NORTH OF ST. THOMAS ISLAND~~ BARRACOUTA BANKS

Scale 1:20,000 Date of survey JD 105 April 15, 1975 to 4/22/75 112

Instructions dated October 30, 1974 Project No. OPR-423-WH-75

Vessel NOAA SHIP WHITING CSS-29

Chief of party CDR. Robert A. Trauschke

Surveyed by CDR. R.A. Trauschke, LCDR Daniels, LT Theberge, LT Meyers, LTJG Perrin, LTJG Kuhl, ENS Bennett, ENS Terry

Soundings taken by echo sounder, [redacted] Echo Sounder

Graphic record scaled by Ship's Personnel

Graphic record checked by Ship's Personnel

Protracted by N/A Calcomp - 618 Automated plot by AMC Calcomp - 618 ~~WHITING SYSTEM~~

Soundings penciled by verified by: B.J. Stephenson

Soundings in fathoms [redacted] at MLW [redacted] Fathoms at MLW

REMARKS: Time Meridian was 0°. Project instructions OPR 423-WH-75, Virgin Islands dated October 30, 1974 are supplemented by change No. #1 to Project Instructions dated January 10, ~~1975 and change No. #4 dated January 24, 1975~~ 1975.

Applied to stds
9/10/76

USCOMM-DC 37009-P66

DESCRIPTIVE REPORT TO

ACCOMPANY HYDROGRAPHIC SURVEY

REGISTRY NO. #9516

BARRACOUTA BANKS

NORTH OF ST. THOMAS ISLAND

UNITED STATES VIRGIN ISLANDS

SCALE: 1:20,000

CDR. ROBERT A. TRAUSCHKE, COMMANDING

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10. "APPROVAL SHEET "
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12. ✓ TC/TI TAPE LISTING

✓= Items filed in cahier with field records

A. PROJECT

This survey was conducted in accordance with project instructions OPR-423-WH-75, Virgin Islands, dated October 30, 1974; supplemented by change No. #1 to Project Instructions dated January 10, 1975; and change No. #4 dated January 24, 1975. ← not applicable to this survey

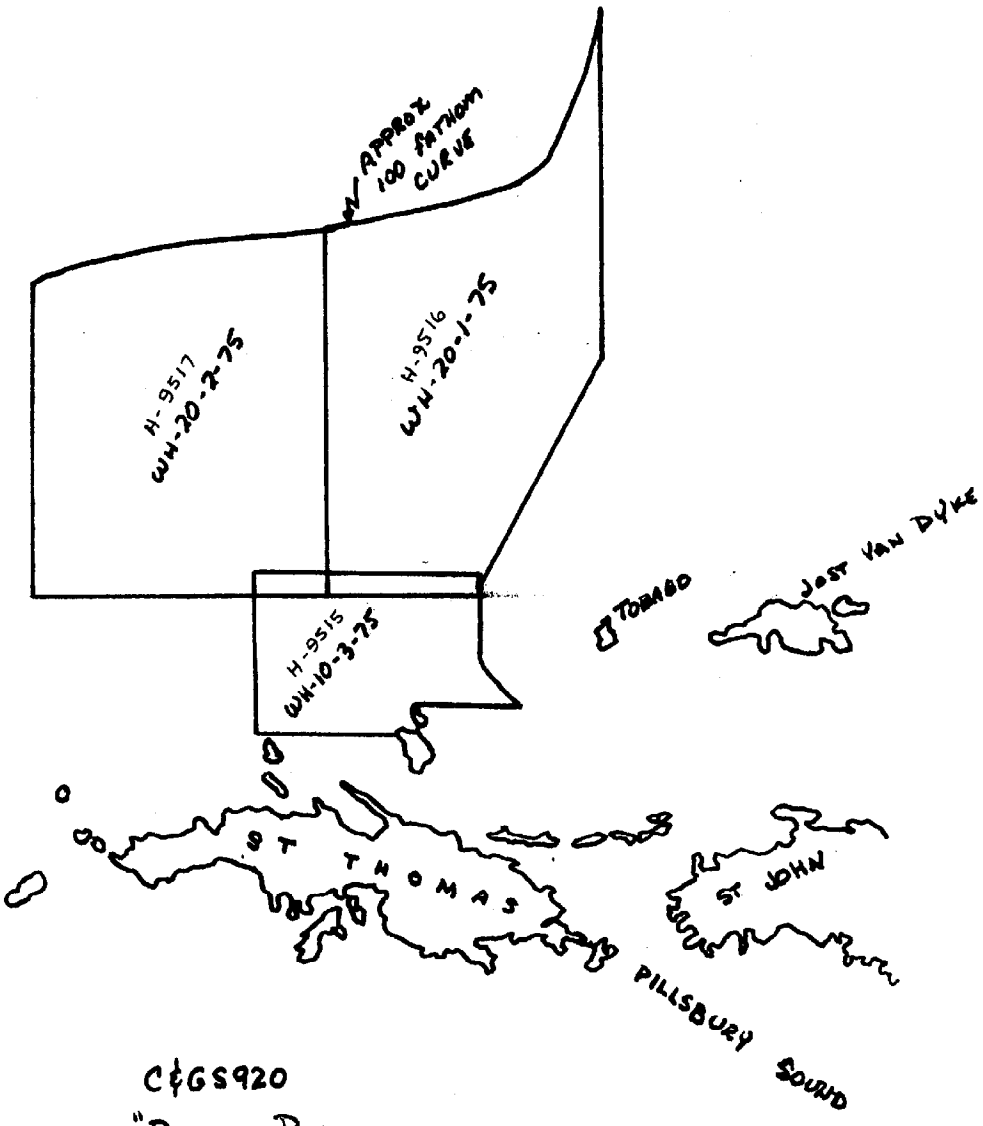
B. AREA SURVEYED

The area surveyed extended offshore, North of St. Thomas Island covering the area of Barracouta Banks. Hydrography on this survey commenced April 15, 1975 (Julian Day 105) and ended on April 22, 1975 (Julian Day 112). The survey is bounded by the following limits:

NUMBER	LATITUDE (N)	LONGITUDE (W)
1	18°42.30'	64°48.55'
2	18°36.90'	64°57.00'
3	18°27.85'	64°57.00'
4	18°27.85'	64°52.80'
5	18°33.70'	64°48.50'

The following sketch shows the approximate survey area and its limits:

JUNCTIONS WITH
H-9516
WH-20-1-75

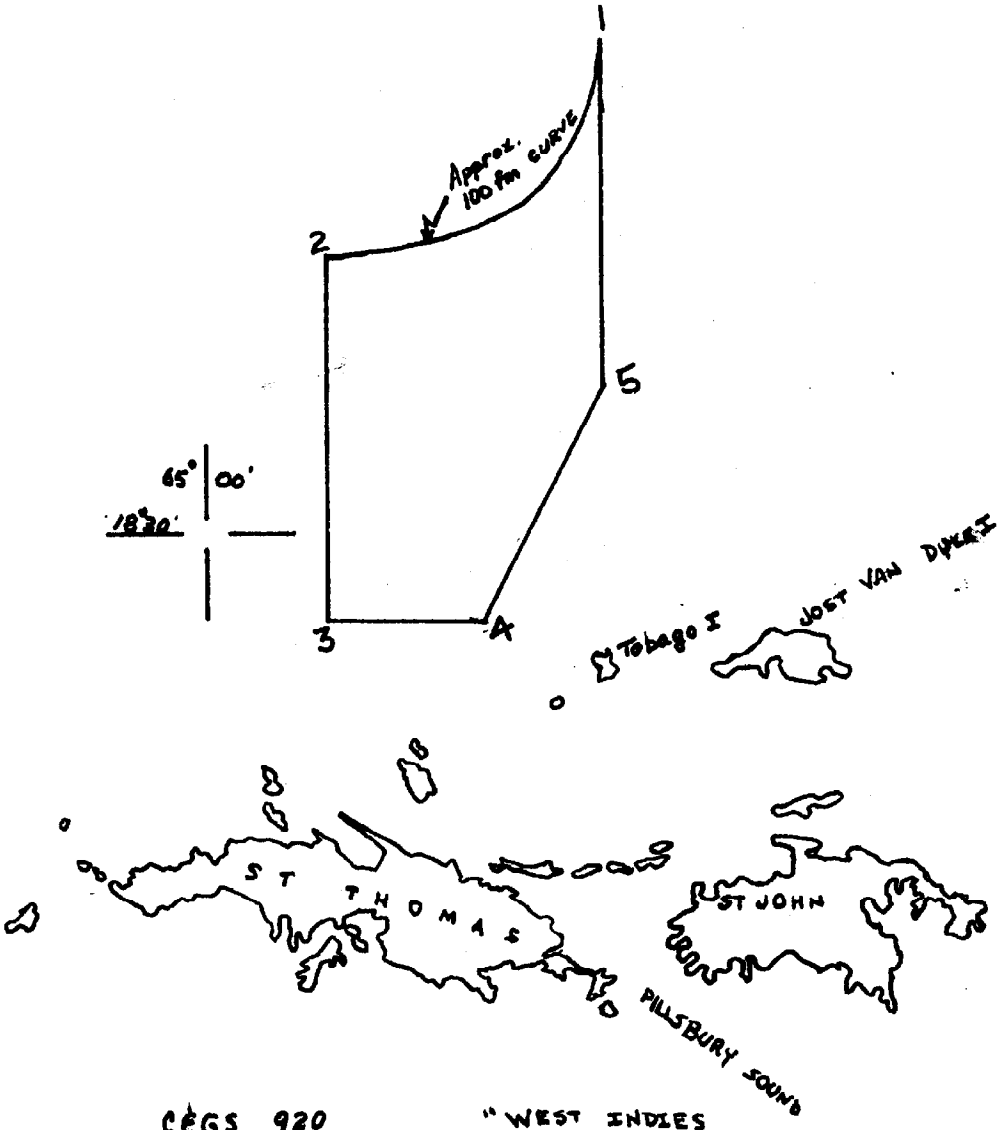


C&GS920
"PUERTO RICO
AND
VIRGIN ISLANDS"

APPROXIMATE SURVEY AREA

H-9516

FOR WH-20-1-75



CEGS 920 "WEST INDIES

scale 1:326,856 PUERTO RICO AND

VIRGIN ISLANDS"

C. SOUNDING EQUIPMENT

The NOAA Ship WHITING CSS-29 (2930) was the only vessel utilized for this survey. The data was taken from Julian Day 105 to Julian Day 112.

VESSEL	POSITION NUMBERS USED
WHITING (2930)	0001-1532
WHITING (2930)	9001-9036 (bottom samples)

D. SOUNDING EQUIPMENT AND CORRECTIONS TO ECHO SOUNDINGS

The hydrography for boat sheet H-9516 WH-20-1-75 was conducted by the NOAA Ship WHITING (2930). The echo sounder used was a Ross Model 5000, 544 serial number 1255. Depths ranging from eleven fathoms to over one hundred fathoms (northern limit of survey) were recorded by the WHITING. Initialization, stylus arm lenght, AF and phase checks were frequently performed by the echo sounder operators.

Velocity corrections to depth soundings were determined by using RK 530 using the curve fit option and input data obtained from a TDC cast on Julian Day 092 located 18° 23' North and 64° 56' West. Leadline comparisons were taken to validate the TDC velocity corrections.

The program input are depth from surface, temperature and conductivity. RD 530 computes the velocity of sound at various layers and resulting output data are the velocity correction table giving true depth, transducer depth, and the corresponding velocity corrector to be applied. Transducer depth and velocity correctors are rounded to tenths and these

values within the range of the survey are put on the velocity tape and applied to the smooth plot. Table I applies to the WHITING (2930). See "Abstract of Corrections to Echo Soundings".

E. HYDROGRAPHIC SHEETS

The field sheets were prepared by the WHITING'S personnel using the ship's plotting equipment. The survey area was divided at 64° 54.00' to form two field sheets: WH-20-1E-75 H-9516 and WH-20-1W-75. H-9516 In addition to these two field sheets, two additional sheets consisting of bottom samples are included.

The only corrections applied to data on this survey are TRA and velocity correctors. Since it was determined that there were no electronic position correctors thoughout the survey, an electronic position corrector of zero was applied.

The sheets and all data will be sent to the Atlantic Marine Center, Norfolk, Virginia for smooth plotting and verification.

F. CONTROL STATIONS

The method of control for the ship WHITING (2930) was Range-Range using Del Norte. The stations used for boat sheet WH-20-1-75 H-9516 were:

STATION	ELECTRONIC CONTROL	LOCALITY	LATITUDE (N)	LONGITUDE (W)
THATCH, 1918	108 220	East end of Thatch Cay	18°21'38.448"	64°51'04.917"
LOVANGO, 1918	109 200	East End of Lovango Cay	18°21'55.473"	64°48'04.476"
CADASTRAL T-95 ~~FORTUNA, 1918~~	134 210 230	Top of Fortuna Hill St. Thomas	18°21'16.383"	65°00'20.020"

THATCH, LOVANGO and CADASTRAL T-95 ~~FORTUNA~~ were located in 1918 using third order survey methods and are recoverable.

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G. HYDROGRAPHIC POSITION CONTROL

The Del Norte Trisponder Electronic Positioning System was used as the control for this survey. The system was used with the master transponder (masters) and the distance measuring units (DMU's) on the WHITING (2930). The remotes were placed at known shore locations THATCH 1918, LOVANGO 1918, and ~~FORTUNA~~ CADASTRAL T-95 1918. All control intersection angles are between 30° and 150°. Three stations were needed because a shadow area existed behind Tobago and Little Tobago Islands.

During this survey the Del Norte was quite stable. Equipment malfunctions were limited to one remote and a master transponder unit.

Corrections to the Del Norte readings were obtained by calibrating each Distance Measuring Unit (DMU) with each remote over a level baseline of known length. Calibrations of equipment were conducted in accordance with methods described in the Del Norte manual. Daily sextant fixes were obtained in the working area as an additional calibration check. See "ELECTRONIC CORRECTOR ABSTRACT" for specific information.

H. SHORELINE

The survey area for H-9516 WH-20-1-75 contained no shoreline.

I. CROSSLINES

Crosslines accounted for 8.7% of the survey area. Crossline soundings were in good agreement with main scheme soundings at the junctions.

J. JUNCTIONS

The sheet H-9516 WH-20-1-75 junctioned with one of the WHITING'S contemporary surveys WH-10-3-75 to the South.

Since the WHITING (2930) was performing a continuous survey with H-9516 WH-20-1-75 and H-9517 WH-20-2-75 to the West, there are no junction soundings between the two sheets, However, the two sheets share a common longitude at 64°54'00" West and soundings from H-9517 WH-20-2-75 are on the sheet in orange ink. The soundings average between one and two fathoms difference on each side of the dividing line. ?

K. COMPARISON WITH PRIOR SURVEYS

No prior surveys were issued to cover the area of the survey H-9516 WH-20-1-75.

L. COMPARISON WITH CHART

This survey was compared with C&GS Chart 920, 1:326,856 scale, "Puerto Rico and the Virgin Islands", 21st Edition, February 16, 1974. Depths in the survey area varied from eleven to well over one-hundred fathoms. Depths from the chart are in black ink and variations between the charted depths and the survey averaged around 1.5 fathoms. ~~A nine fathom discrepency exists at 18°36.50' N, 64°53.65" W with the survey data being the shallower depth~~.

The 1961 Pre-Survey Review for OPR-423, updated to December 27, 1974, requested that the area in the vicinity of Barracouta Banks, 18°34.30' N, 64°56.00" W, be adequately developed. Developments using two hundred meter line spacing were used in this area. Least depths of ten fathoms were found in the area of the eleven fathom charted depth.

Other areas, of less than twenty fathoms, were developed with two-hundred meter line spacing in the vicinity of 18°31.50' N, 64°55.00' W and 18°33.50' N, 64°51.00'W. The shallowest depths in these areas agree with those on the chart.

M. ADEQUACY OF SURVEY

The survey WH-20-1-75 H-9516 is complete and adequate and should supersede all prior surveys.

N. AIDS TO NAVIGATION

There were no aids to navigation in the survey area.

O. STATISTICS

Vessel	Miles Run	Number of Positions
WHITING CSS 29 (2930)	506.7	1568

Total square miles:	73.5
Total bottom samples:	36
Percent Crosslines:	8.7
No. of Tide Stations:	4

P. MISCELLANEOUS

At 18°36'45" North, 064°55'10" West on WH-20-1-75, several soundings plotted on top of each other. These soundings have been corrected on the corrector tape and should plot correctly on the smooth sheet.

Q. RECOMMENDATIONS

It is recommended that any discrepencies between the charted depths and the survey be resolved using the H-9516 WH-20-1-75 survey data.

R. AUTOMATED DATA PROCESSING

Data gathered by the WHITING (2930) was acquired by RK 111 "RANGE-RANGE REAL TIME PLOT", version 8/7/74. The data was plotted using RK 211 "RANGE-RANGE NON-REAL TIME PLOT", version 2/19/75.

S. REFERENCES TO REPORTS

All records, reports, and forms pertinent to this survey are included in this report, except for "FIELD RECORDS FOR DETERMINATION OF CORRECTIONS TO ECHO SOUNDINGS". This will accompany the hydrographic sheets and Descriptive Report under a separate cover.

There are no suitable non-floating aids or land marks for charts in the survey area.

1/31/74

ATLANTIC MARINE CENTER

PROJECTION PARAMETERS

POLYCONIC OR MODIFIED TRANSVERSE MERCATOR

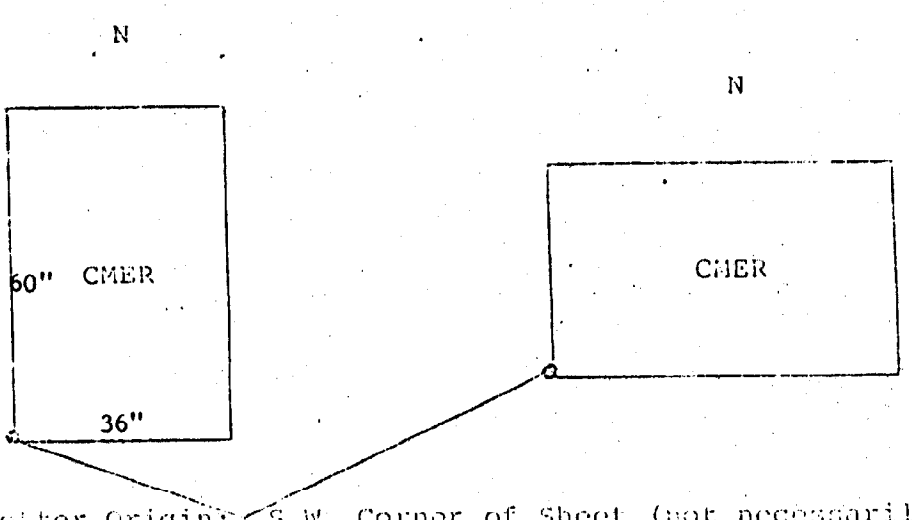
1. Project No. OPR-423
2. Reg. No. H-9516
3. Field No. WH-20-1-75
4. Requested By AMC
5. Ship or Office Verification Branch
6. Date Required ASAP

7. Polyconic [X] Modified Transverse Mercator [ ]
8. Central Meridian of Projection 64 ° 55 ' 00 "
9. Survey Scale: 1: 20,000
10. Size of Sheet (check one):

36 x 54 [ ] 36 x 60 [X] Other [ ] Specify _____

11. Sheet Orientation (check one):

NYX = 1 [X] NYX = Ø [ ]



12. Plotter Origin: S.W. Corner of Sheet (not necessarily a grid intersection)

Latitude 18 ° 27 ' 25 "

Longitude 64 ° 57 ' 42 "

13. G.P.'s or Triangulation and/or signals attached [ ]

14. Material Desired: Tracing Paper [ ] Mylar [X]

Smooth Sheet [X] Other [ ] Specify _____

15. Remarks: _____

17

2-22-7

ATLANTIC MARINE CENTER

ELECTRONIC CONTROL PARAMETERS

1. Project # CPR-423-WH-75 2. Reg. # H- 9516 3. Field # WH-20-1-75

2. Type of Control: DEL NORTE (Hi-Fix, Raydist, EPI, etc.)

3. Frequency _____ (for conversion of electronic lanes to meters)

4. Mode of Operation (check one):

Range-Range [X] Range-Visual [ ]

Range One (R_1) Station I.D.	LOVANGO (109)	Lat.	18 °	21 '	.55443 "
		Long.	064 °	48 '	.04476 "
Range Two (R_2) Station I.D.	CADASTRAL T-95 FORTUNA (134)	Lat.	18 °	21 '	.16383 "
		Long.	065 °	00 '	.20020 "

Hyperbolic (3-station) [ ] Hyper-Visual [ ]

Slave One Station I.D.		Lat.	°	'	"
		Long.	°	'	"
Master Station I.D.		Lat.	°	'	"
		Long.	°	'	"
Slave Two Station I.D.		Lat.	°	'	"
		Long.	°	'	"

7. Location of Survey:

Range-Range [X] Imagine an observer is standing at R_1 Station and looking directly at R_2 (check one):

Survey area is to observer's Right [X] A=0

Survey area is to observer's Left [ ] A=1

Hyperbolic [ ] Looking from survey area toward Master Station:

Slave One must be to observer's Left;

Slave Two must be to observer's Right.

8. [ ] This form is submitted as an aid in preparing a boat sheet.

[ ] This form applies to all data on this survey.

[X] This form applies to part of the data on this survey.

Vessel EDP #	From Time	From Day	To Time	To Day	Position Numbers (inclusive)		
WH(2930)	224146	105	105757	110	001	to	1124
						to	
						to	

REMARKS: _____

18

8-22-74

ATLANTIC MARINE CENTER

ELECTRONIC CONTROL PARAMETERS

1. Project # OPR-423-WH-75 2. Reg. # H- 9516 3. Field # WH-20-1-75

4. Type of Control: DEL NORTE (Hi-Fix, Raydist, EPI, etc.)

5. Frequency _____ (for conversion of electronic lanes to meters)

6. Mode of Operation (check one):

Range-Range [X] Range-Visual [ ]

Range One (R_1) Station I.D.	THATCH (108)	Lat.	✓18 °	21 '	x38448
		Long.	064 °	51 '	x04917
Range Two (R_2) Station I.D.	CADASTRAL T-95 FORTUNA (134)	Lat.	18 °	21 '	x16383
		Long.	065 °	00 '	.20020

Hyperbolic (3-station) [ ] Hyper-Visual [ ]

Slave One Station I.D.	_____	Lat.	____ °	____ '	____ "
		Long.	____ °	____ '	____ "
Master Station I.D.	_____	Lat.	____ °	____ '	____ "
		Long.	____ °	____ '	____ "
Slave Two Station I.D.	_____	Lat.	____ °	____ '	____ "
		Long.	____ °	____ '	____ "

7. Location of Survey:

Range-Range [X] Imagine an observer is standing at R_1 Station and looking directly at R_2 (check one):

Survey area is to observer's Right [X] A=Ø

Survey area is to observer's Left [ ] A=1

Hyperbolic [ ] Looking from survey area toward Master Station:

Slave One must be to observer's Left;

Slave Two must be to observer's Right.

8. [ ] This form is submitted as an aid in preparing a boat sheet.

[ ] This form applies to all data on this survey.

[X] This form applies to part of the data on this survey.

Vessel EDP #	From Time	From Day	To Time	To Day	Position Numbers (inclusive)		
WH(2930)	114004	110	040824	112	1125	to	1572
						to	
						to	

Remarks:

1/6/76

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

Processing Division: Atlantic Marine Center:

Hourly heights are approved for Form 362

Tide Station Used (NOAA Form 77-12): Boca de Cangrejos

Period: April 15-22, 1975

HYDROGRAPHIC SHEET: H-9516

OPR: 423

Locality: Offshore, north of St. Thomas

Plane of reference (mean ~~lower~~ low water): 2.4 ft.

Height of Mean High Water above Plane of Reference:
Boca de Cangrejos 0.9 ft.

Remarks: Recommended zoning:

Time correction

-1 hour

James R Hubbard
for Chief, Tides Branch

20

VELOCITY CORRECTIONS FOR SURVEY H 9516.

H-9516

TABLE NUMBER 1. UNIT IS FATHOMS.

DEPTH+TRA	VELOCITY CORRECTION
9.8	0.5
11.9	0.6
12.9	0.7
15.0	0.8
17.1	0.9
19.1	1.0
21.2	1.1
22.2	1.2
24.3	1.3
26.9	1.5
29.5	1.6
32.1	1.8
37.3	2.0
39.8	2.2
42.4	2.3
45.0	2.5
47.6	2.6
50.2	2.8
55.3	3.1
60.5	3.4
65.7	3.7
70.8	4.0
76.0	4.3
81.1	4.6
86.3	5.0
91.4	5.3
96.6	5.6
101.7	5.9
106.9	6.3
117.1	6.9
99999.9	7.6

VELOCITY TABLE WHITING (2930)
WH-20-1-75

000098 0 0005 0001 001 293000 020175
000119 0 0006
000129 0 0007
000150 0 0008
000171 0 0009
000191 0 0010
000212 0 0011
000222 0 0012
000243 0 0013
000269 0 0015
000295 0 0016
000321 0 0018
000373 0 0020
000398 0 0022
000424 0 0023
000450 0 0025
000476 0 0026
000502 0 0028
000553 0 0031
000605 0 0034
000657 0 0037
000708 0 0040
000760 0 0043
000811 0 0046
000863 0 0050
000914 0 0053
000966 0 0056
001017 0 0059
001069 0 0063
001171 0 0069
999999 0 0076

STATION LIST

STA	0	LATITUDE	LONGITUDE	CRT	ELEV	F. KHz	TYPE-NAME
108	0	18 21 38448	064 51 04917	139	0146	000000	THATCH HILL (1918)
109	0	18 21 55443	064 48 04476	250	0082	000000	LOVANGO (1918)
134	0	18 21 16383	065 00 20020	139	0277	000000	~~FORTUNA~~ CADASTRAL T-95

08/18/75

H 9516 I + R STATISTICS

VESSEL	YR	DAY	STIME	ETIME	SCONT	ECONT
2930	75	105	224146	231028	1.	116.
2930	75	106	002421	235957	117.	3754.
2930	75	107	000012	222250	3755.	7932.
2930	75	110	063317	235956	7933.	10087.
2930	75	111	000011	235521	10088.	11599.
2930	75	112	001531	040824	11600.	11618.

HIGHEST EXCESS INDICATOR = 1

LAST RECORD NUMBER = 11618.

H 9516

Corrector Printout

8/18/75

H 9516 POSITION TO RECORD CROSS REFERENCE 07/11/75

FROM POSITION	TO POSITION	FROM RECORD	TO RECORD
1	1046	1,	8006,
1053	1532	8007,	11582.
9001	9036	11583,	11618.

THERE ARE 1553 POSITION NUMBERS

VESSEL: 2930

DAY	POSITION	CTRL	S1	M	S2	REMARKS
105	0001-0014	04	109	-	134	Hydro
106	0015-0481	04	109	-	134	Hydro
107	0482-1030	04	109	-	134	Hydro
110	1031-1124	04	109	-	134	Hydro
110	1125-~~1386~~ 1329	04	108	-	134	Hydro
111	~~1387~~ 1330-1532	04	108	-	134	Hydro
111	9001-9017	04	108	-	134	Bottom Samples
112	9018-9036	04	108	-	134	Bottom Samples

NOAA FORM 76-155
(11-72)

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

SURVEY NUMBER

GEOGRAPHIC NAMES

Name on Survey	A ON CHART NO.	B ON PREVIOUS SURVEY NO.	C ON U.S. QUADRANGLE MAPS	D FROM LOCAL INFORMATION	E ON LOCAL MAPS	F P.O. GUIDE OR MAP	G RAND MCNALLY ATLAS	H U.S. LIGHT LIST	K	
BARRACOUTA BANKS										1
										2
										3
										4
										5
										6
										7
										8
										9
										10
										11
										12
										13
										14
										15
										16
										17
					APPROVED					18
					Chas. E. Harrington					19
					STAFF GEOGRAPHER					20
					17 Nov. 1976					21
										22
										23
										24
										25

NOAA FORM 76-155 SUPERSEDES C&GS 197

U.S. G.P.O. 1972-769-565/516 REG. #6

* APPROVAL SHEET *

Submitted by

James Bennett

James Bennett
ENS, NOAA

Supervision of field and office work on this hydrographic survey was continuous on a day to day basis to ensure completeness of the survey and that all work was done in accordance with the instructions.

Approved/Forwarded:

Robert A. Trauschke
CDR, NOAA
Commanding Officer, NOAA SHIP WHITING

ATLANTIC MARINE CENTER
APPROVAL SHEET
FOR
AUTOMATED SURVEY H-9516

A. All revisions and additions made on the smooth sheet during verification have been entered in the magnetic tape records for this survey. A new final position printout has/~~has not~~ been made. A new final sounding printout has/~~has no~~t been made.

Date: August 16, 1976

Signed: William L. Jones

Title: Chief, Verification Branch

B. The verified smooth sheet has been inspected, is complete, and meets the requirements of the Hydrographic and AMC Manuals. Exceptions are listed in the verifier's report.

Date: 9/16/76

Signed: [signature]

Title: Chief, Processing Division

NOAA FORM 77-27
(9-72)
(PRESC. BY HYDROGRAPHIC MANUAL 20-2, 6-94, 7-13)

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

HYDROGRAPHIC SURVEY STATISTICS

HYDROGRAPHIC SURVEY NO. H-9516

WH-20-1-75

RECORDS ACCOMPANYING SURVEY: To be completed when survey is registered.

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET & smooth excess overlay	1	BOAT SHEETS (2 parts paper)	21
DESCRIPTIVE REPORT	1	OVERLAYS	24

DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/ SOURCE DOCUMENTS
Accordion ENVELOPES	XX		1-in cahier & 1 smooth			
CAHIERS	1-with printouts		XX			
VOLUMES						
BOXES						

T-SHEET PRINTS *(List)*
NONE

SPECIAL REPORTS *(List)* (in cahier)
"Field Report for Determination of Corrections to Echo Soundings"

OFFICE PROCESSING ACTIVITIES

The following statistics will be submitted with the cartographer's report on the survey

PROCESSING ACTIVITY	AMOUNTS			
	PRE-VERIFICATION	VERIFICATION	REVIEW	TOTALS
POSITIONS ON SHEET				1568
POSITIONS CHECKED		150		
POSITIONS REVISED		10		
DEPTH SOUNDINGS REVISED		300		
DEPTH SOUNDINGS ERRONEOUSLY SPACED		---		
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED		---		
	TIME (MANHOURS)			
TOPOGRAPHIC DETAILS		2		
JUNCTIONS		2		
VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS				
SPECIAL ADJUSTMENTS				
ALL OTHER WORK		92	10	
TOTALS		96		

	BEGINNING DATE	ENDING DATE
PRE-VERIFICATION BY: G.D. Hendrix and R.G. Roberson	7-15-75	3-15-76
VERIFICATION BY: B.J. Stephenson	8-02-76	8-05-76
REVIEW BY: Hydrographic Inspection Team (AMC)	8-18-76	8-20-76

QUALITY CONTROL BY K.W. Wellman 13hrs 24 hrs. 11/29/76 G Myers 11-10-76 11-17-76

R Sanchi 10/6/1976 6 hrs.

* U.S. G.P.O. 1972-769-562/439 REG.#6

REGISTRY NO. H-9516

The Computer and Excess Sounding Cards for this survey have not been corrected to reflect the changes made to the Computer Card and Excess Card Printouts at this time of the review.

When the cards have been updated to reflect the final results of the survey, the following shall be completed:

CARDS CORRECTED

DATE_____ TIME REQUIRED_____ INITIALS_____

REMARKS:

REGISTRY NO. H-9516

The magnetic tape containing the data for this survey has not been corrected to reflect the changes made during evaluation and review.

When the magnetic tape has been updated to reflect the final results of the survey, the following shall be completed:

MAGNETIC TAPE CORRECTED

DATE 5-3-82 TIME REQUIRED_____ INITIALS JMC

REMARKS: The Signal No's used on this tape were Corrected to Reflect Signal Nos used on H-9515 & H-9518 and to conform with the Signal List Control Station Nos given in this Descriptive Report JMC 2-26-82

H-9516

Items for Future Presurvey Reviews

The charted 18- and 22-fathom soundings located at latitude 18°35.3', longitude 64°53.3' and latitude 18°32.5', longitude 64°56.3', respectively, were not verified or disproved on the present survey and should be investigated at an opportune time.

	Position Index Lat.	Long.	Bottom Change Index	Use Index	Resurvey Cycle
(1)	182	0650	2	1	50 years
(2)	183	0650	1	0	50 years
(3)	183	0645	1	Use indices for items (3) and (4) are not provided in the Resurvey Cycle printout. However, the entire area covered by H-9516 is considered to be in the 50 year category.	
(4)	184	0645	1		

HYDROGRAPHIC INSPECTION TEAM

ATLANTIC MARINE CENTER

HYDROGRAPHIC SURVEY REVIEW

DATE: August 18, 1976

REGISTRY NO.: H-9516 FIELD NO.: WH-20-1-75

GENERAL LOCALITY and SPECIFIC LOCATION:

U.S. Virgin Islands, ~~Area~~ North of St. Thomas ~~Island,~~ Barracouta Banks

SURVEYED: April 15, 1975 through April 22, 1975

PROJECT NO.: OPR-423-WH-75 SCALE: 1:20,000

SOUNDINGS BY: Ross Model 5000 Depth Recorder CONTROL: Del-Norte

Chief of Party ..... CDR R.A. Trauschke
Surveyed by ..... LCDR Daniels
..... LT Theberge
..... LT Meyers
..... LTJG Perrin
..... LTJG Kuhl
..... ENS Bennett
..... ENS Terry
Automated Plot by ..... Calcomp Plotter #618 (AMC)
Verified and Inked by ..... B.J. Stephenson

1. Description of the Area

This survey covers an area north of St. Thomas Island, in the Virgin Islands. The bottom is predominantly clay, broken shell and coral, and ranges in depths from eleven to one-hundred and sixty-eight fathoms with the majority of the depths between fifteen and thirty fathoms.

2. Control and Shoreline

The origin of control is adequately described in Section F. of the Descriptive Report.

This is an offshore survey; therefore, no shoreline is required.

3. Hydrography

A. Crossings: Depths at crossings are in good agreement.

B. Depth Curves: The usual depth curves are adequately delineated. The 12 and 110 fathom curves were also added in brown to delineate certain features.

C. Developments: The development of the bottom configuration and the investigation of least depths are considered adequate.

4. Condition of the Survey

The sounding records, automated plotting and the Descriptive Report are adequate and conform to the requirements of the Provisional Hydrographic Manual, supplemented by the Atlantic Marine Center Manual, with the following exceptions:

(a) There are no sounding volumes, hydrographic log, or any other record of events included in the survey data.

(b) Paragraph E. of the Descriptive Report states there ~~was~~ are no Electronic Position Correctors. Calibration of the Del-Norte equipment was taken on two days only; days 103 and 114.

Paragraph G. states that daily sextant fixes were obtained for electronic calibration checks; no evidence that these sextant fixes were actually obtained was found.

(c) Paragraph D. of the Descriptive Report includes boiler plate material applicable only to Raytheon 723 fathometer, not the Ross. There is no stylus arm whose length must be checked, nor "A" and "F" scales to check. The "frequently performed" phase checks mentioned were not found.

5. Junctions

An adequate junction has been effected with H-9517 (1975) and H-9515 (1975) on the west and south part of the survey.

There are no contemporary surveys on the north and east.

6. Comparisons

A. Prior Surveys: There are no prior surveys covering the area of this survey.

B. Published Chart: #25640 (formerly C&GS 920), 22nd edition, dated February 8, 1975. (See Q.C. Report-item 3)

(a) Hydrography: The charted hydrography apparently originates with British Admiralty charts of this area. A comparison between the present survey and the charted hydrography of the area reveals ~~on~~ only a few differences. They are as follows:

The eighteen fathom sounding charted in latitude 18° 35.3'N, longitude 64° 53.3'W and the twenty-two fathom sounding charted in latitude 18° 36.5'N, longitude 64° 52.3'W ~~did~~ do not appear on the present survey, but should be retained as charted due to the line spacing of this survey. Considering that the source data for these soundings in question is not available in this office, it is recommended that these depths be re-evaluated by the chart compiler.

Barracouta Banks and several other shoal areas were developed and found to be within one or two fathoms of the charted depths.

(b) Aids to Navigation: There are no aids to navigation on this survey.

This survey is considered adequate to supersede the charted hydrography within the common area with the exception of the ~~eighteen fathom~~ two soundings previously mentioned, ~~and the area surrounding Barracouta Banks.~~

7. Compliance With Instructions

This survey does comply with the Project Instructions.

8. Additional Field Work

This is an excellent basic survey. Additional field work is not recommended.

9. Hydrographic Inspection Team Comments

Hydrographic Inspection Team comments are included within this report and Verification deficiencies found, if any, have been corrected on the Smooth Sheet.

Approval Sheet for H-9516

Examined and Approved:
Hydrographic Inspection Team
Date: August 18, 1976

CAPT Ronald M. Buffington, NOAA
Chief, Operations Division

CDR Robert A. Trauschke, NOAA
Chief, Processing Division

CDR Jeffrey G. Carlen, NOAA
Chief, Coastal Mapping Division

C. Douglas Mason, LT(jg), NOAA
Chief, EDP Branch

William L. Jonns
Chief, Verification Branch

Approved/Forwarded

Robert C. Munson
RADM, NOAA
Director, Atlantic Marine Center

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SURVEY
Rockville, Md. 20852

C352

November 17, 1976

TO: A. J. Patrick
Chief, Marine Surveys Division

THRU: Chief, Quality Control Branch

FROM: K. W. Wellman
Quality Evaluator

SUBJECT: Quality Control Report for H-9516 (1975), U.S. Virgin Islands, North of St. Thomas, Barracouta Banks

A quality control inspection has been accomplished to evaluate the accuracy and adequacy of the survey with respect to data acquisition, delineation of the bottom, determination of least depths and navigational hazards, junctions, decisions and actions by the reviewer, and cartographic presentation of data.

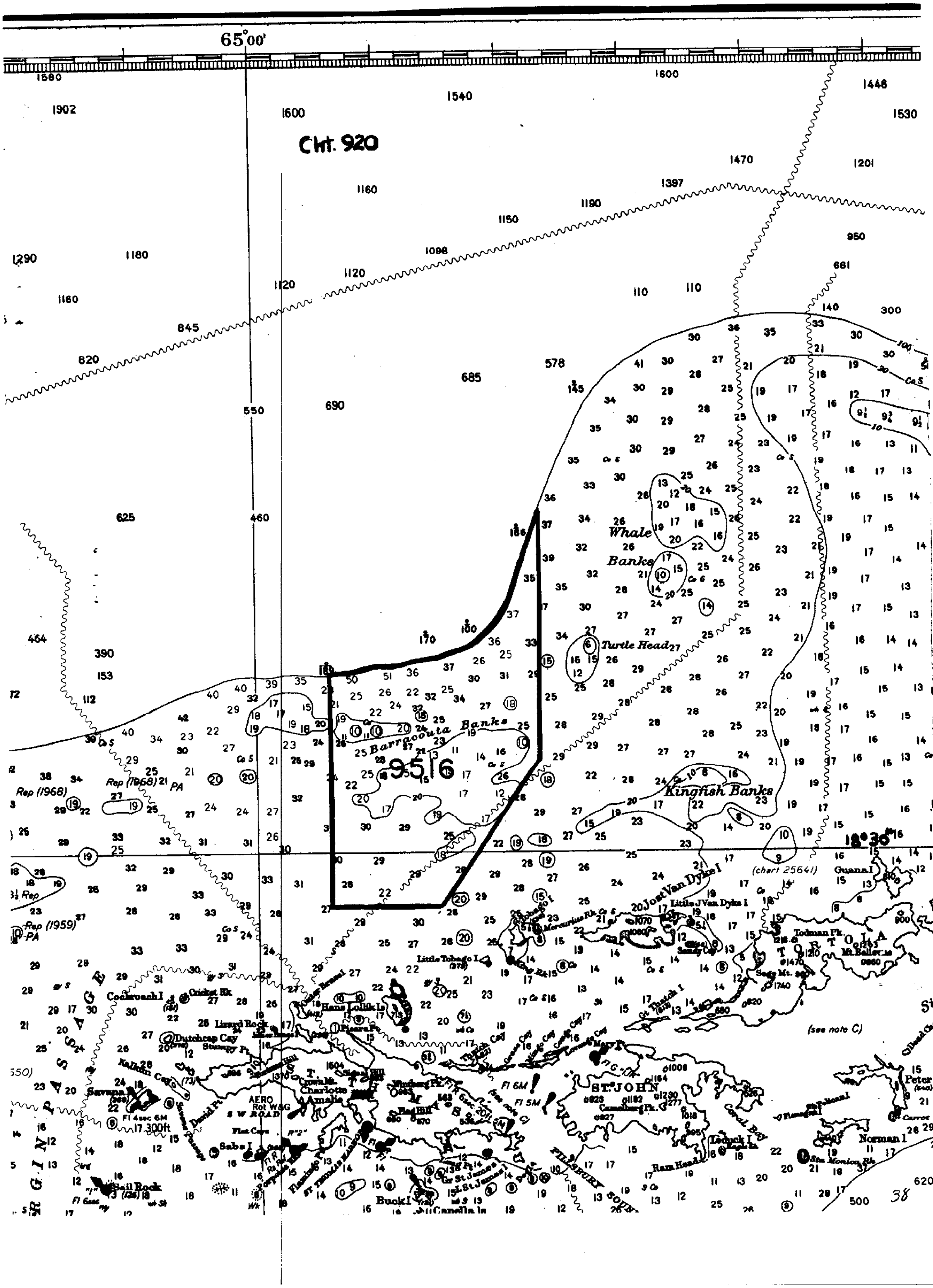
The adequacy of the junctions with H-9515 (1975) on the south and H-9517 (1975) on the ~~east~~ west will be considered during the quality control evaluations of these surveys. No contemporary surveys junction with the present survey on the north and east. However, present depths are in general harmony with the charted depths in these areas.

The following deficiencies, changes, and additions are noted by the quality evaluator:

1. A comparison with the two largest scale charts common to portions of the present survey was not made by the hydrographer as specified in section 5.3.4(L) of the Provisional Hydrographic Manual. Likewise, these charts were not discussed under the heading Comparison with Charts in the review report. A comparison with chart 25641 (formerly 905) print date May 18, 1974, and chart 25650 (formerly 904) print date August 10, 1974, was made during quality control.

2. The position of a 22-fathom sounding charted from an oceanographic trackline survey (Bp 71148) was indicated in error in the review report. This erroneous position was revised in red ink by the quality evaluator. The correct position for this sounding is latitude 18°32.5', longitude 64°56.3'.

cc:
C351


65°00'
Cht. 920
9516
Whale Banks
Barracouta Banks
Turtle Head
Kingfish Banks
18°30'
(chart 25641)
Jost Van Dyke I
Little Jost Van Dyke I
TORTOLA
ST. JOHN
(see note C)
Savana I
Saba I
Buck I
Cockroach I
Cricket Rk
Dutchcap Cay
Hans Lollik Is
Little Tobago I
Guana I
Norman I
Peter I
Sail Rock
Rep (1968)
Rep (1959)

FORM C&GS-8352
(3-25-63)

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. 9516

INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.
1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

CHART	DATE	CARTOGRAPHER	REMARKS
25641	3/9/77	R.S.House	Full [redacted] After Verification Review Inspection Signed Via
			Drawing No. Quality Control Sheet
25650	8/9/77	Julia Briggs	Full [redacted] After Verification Review Inspection Signed Via
(904)			Drawing No. QC
25640	Aug 3, 82	R. Richter	Full ~~Part Before~~ After Verification Review Inspection Signed Via
			Drawing No. 33 Q.C.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
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FORM C&GS-8352 SUPERSEDES ALL EDITIONS OF FORM C&GS-975.

USCOMM-DC 8558-P63