

7721

Diag. Cht. No. 1222-3

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. PBS-1248 Office No. H-7721

LOCALITY

State VIRGINIA

General locality LOWER CHESAPEAKE BAY

Locality CAPE HENRY

1949

CHIEF OF PARTY

G.R. FISH

LIBRARY & ARCHIVES

DATE 19 JANUARY 1950

1222

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO. - H-7721

HYDROGRAPHIC TITLE SHEET

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

REGISTER No. H-7721

Field No. PBS-1248

State VIRGINIA ✓

General locality LOWER CHESAPEAKE BAY ✓

Locality ~~LYNNEAVEN ROADS~~ CAPE HENRY ✓

Scale 1:10,000 Date of survey 18 Apr. - 2 May 1949 ✓

Instructions dated 26 JULY 1948

Vessel PARKER, BOWEN & STIRNI

Chief of party G.R. FISH ✓

Surveyed by W.E. RANDALL & A.L. POWELL ✓

Soundings taken by ~~tachometer~~, graphic recorder, hand lead, ~~etc~~

Fathograms scaled by FIELD PARTY

Fathograms checked by " "

Protracted by ANDREW ANNINOS

Soundings penciled by ANDREW ANNINOS

Soundings in ~~2000~~ feet at MLW ~~MARK~~ ✓

REMARKS: This sheet was assigned a 1948 field number but the

field work was accomplished in 1949.

DESCRIPTIVE REPORT

TO ACCOMPANY

HYDROGRAPHIC SURVEY H-7721 (1949)

(Field Number PBS H- 1248)

G. R. Fish Chief of Party

Ships PARKER, BOWEN, STIRNI

Scale: 1: 10,000

Survey made in 1949

A. PROJECT:

This survey was executed under Supplemental Instruction from the Director for Project CS 326, dated July 1948. ✓

B. SURVEY LIMITS AND DATES:

This survey covers that portion of Lower Chesapeake Bay which is immediately adjacent to Cape Henry and east of Lynnhaven Roads, Virginia. The survey began on 18 April 1949 and was completed on 2 May 1949. It joins contemporary survey number H-7703, (PBS H-1148), scale 1:10,000, made in June through October 1948 on the east; contemporary survey number H-7750, (PBS H-1148), scale 1:40,000, made in July 1948 through May 1949 on the north; and Hydrographic Survey H-7089, scale 1:10,000 made in 1946 on the west. ✓

C. VESSEL AND EQUIPMENT:

The hydrography was done in USC&GS Launch # 82. The launch was operated at 600 to 800 RPM while doing hydrography. A standard Navy boat compass was used in the launch. The compass had not been compensated; therefore ranges were used where possible.

The launch was operated from Ships PARKER, BOWEN, & STIRNI. The Ships were alongside the pier at the Army Mine Base at Little Creek, Virginia. ✓

Portable depth recorder No. 120S Submarine Signal Company model 808-J was used to obtain soundings.

D. TIDE AND CURRENT STATIONS:

The tides for this area were furnished by the Washington Office upon request. They were based on the hourly heights as observed at the primary station located at the Naval Operating Base, Hampton Roads, Virginia. A time correction of minus 45' and a high water height difference of plus 0.3' was applied to observed tides. (See Directors letter of 25 of March 1949, reference 36-tmo). ✓

No current stations were occupied.

F. CONTROL STATIONS:

The control used on this sheet consisted of five triangulation stations, supplemented by six topographic signals and five stations located by the U. S. Army Engineers in 1946.

The triangulation is from a scheme executed in 1887, Chief of Party unknown; a scheme executed by F. L. Peacock, Chief of Party, in 1929; and a scheme executed in 1939, Chief of Party unknown.

This latter scheme is Classified.

The U. S. Army Engineers furnished this party the descriptions and coordinates for the stations in their traverse along the shore. Eighteen stations were searched for. Recoverable topographic station cards are submitted for those marked stations in this traverse that were recovered. *filed in Div. of Photogrammetry H-7721*

It was necessary to locate additional topographic signals. This was done by observing sextant angles from recovered stations to the new signal or building over RM's for the U. S. Army Engineer's traverse points.

Station Lyn (Bridge Counter Balance, N'ly of two) is a topographic station located by personnel from the Southeastern District Office.

Computation of the Geographic Positions of the U. S. Army Engineer's traverse are attached to this report. The location of the topographic stations are listed below: *filed with fthgrms.*

Station Name	Location (U. S. Army Engineers)
Leo	Built over TC 12
Max	Built over TC11A
Rub	Built over TC 8
Sue	Built over TC 7
Wag	Built over TC 4
Off	Built over RM 2 for TC 10
Try	Built over RM 3 for TC 6
Vet	Built over RM 2 for TC 5A
Nip	

CAP	00° 00'		
Cape Henry Lighthouse	11° 39'	} <i>see location obtained on 2 Nov. 1949 pg. 10, this Desc. Report</i>	
NIT	151° 03'		
MATE	165° 48'		
At signal MAX			
MATE - NIP	167° 42'		
Quo	At TC 8 (USE)		
	QUO - NIT	146° 51'	
	MATE	12° 11'	
	At MATE		
	NIT - QUO	25° 00'	
	TC 8 - QUO	16° 17'	
Lyn	At QUO MATE -TC 8	151° 27'	

G. SHORE LINE AND TOPOGRAPHY:

The shoreline and topographic detail <sup>were</sup> ~~was~~ taken from T-8301 surveyed in 1944. No detail was found to be inaccurate or changed since the survey. No discrepancies between the topographic survey and the hydrographic survey <sup>were</sup> ~~was~~ noted.

The mean low-water line was not defined by soundings. The beach is steep-to in this area and it was impossible with the equipment available to this party and the small range of tide to define the MLW line without jeopardizing the launch and personnel. Soundings were obtained in most areas along the beach at the shallowest depth in which the launch could be operated.

This new survey supercedes in part Hydrographic Survey H-3923, scale 1:30,000, surveyed in 1916 - 1917; and in part Hydrographic Survey H-4038, scale 1:40,000, surveyed in 1918.

H. SOUNDINGS:

Soundings were made with the Submarine Signal Company type 808J (No. 1208) depth recorder calibrated to 820 fathoms per second.

Bar checks were taken in accordance with paragraph reference number 557 of the Hydrographic Manual. Mean corrections were computed after rejecting the obvious "wild" readings and a graph drawn representing corrections as ordinates and depth as abscissae. The bar check corrections entered in the sounding records were scaled from this graph. (See attached report on Bar Checks).

I. CONTROL OF HYDROGRAPHY:

Standard surveying procedure was used, with the three-point fix by sextants on the launch used for horizontal control.

J. ADEQUACY OF SURVEY:

This survey is complete and adequate for the area. A satisfactory junction is made with adjoining surveys; depth curves can be drawn at the junctions. Several 16 ft. soundings in Lat. 36 55.95' Long. 76 00.45' from sheet PBS H-1148 appear to be too far off shore.

It is thought that this difference can be reconciled on the smooth sheets for the two surveys. The control available at this limit on PBS H-1148 is weak and a shift in soundings will adjust this discrepancy.

*Differences reconciled*

K. CROSSLINES:

Approximately ten percent of the lines run were crosslines. These closely checked the soundings on other lines and it is believed that smooth sheet plotting will assure perfect crossings.

L. COMPARISON WITH PRIOR SURVEYS:

The present survey is in general agreement with prior survey | Register No. 3923, 1916 & 1917; 1:30,000. A four ft. sounding was obtained outside the six foot curve at Lat. 36 55.96' Long. 76 00.96' that was not shown on sheet No 3923. Some of the fish stakes shown on prior surveys have been moved, but these stakes are moved every few years. | Review, par. 5

The survey is in general agreement with surveys made by the U. S. Corps of Engineers (copies of which are forwarded with this report) in March 1945, scale 1" equal 200' Sheets Nos. 4, 6, 31, and 32. The mean low water line can be obtained from the Engineer's survey. | Review, par. 6.  
There are no specific soundings or features on prior surveys or charts which the present survey displaced. Changes are general and natural.

M. COMPARISON WITH CHART:

A comparison was made with chart 481 printed August 1948; the present survey is in general agreement with the chart. | Review, par. 6.

N. DANGERS AND SHOALS:

There are no dangers or shoals within the limits of the present survey. ✓

O. COAST PILOT INFORMATION:

Coast Pilot notes will be submitted in a special report by the Chief of Party for the area at a later date. ✓

P. AIDS TO NAVIGATION:

A separate report will be submitted by the Chief of Party for the area at a later date.

Q. LANDMARKS FOR CHARTS:

A separate report will be submitted by the Chief of Party for the area at a later date.

R. GEOGRAPHIC NAMES:

A separate report will be submitted by the Chief of Party for the area at a later date.

S. SETTLEMENT AND SQUAT:

No corrections for settlement and squat were made. It is believed that this correction is negligible for the speeds at which the launch was operated. ✓

No record of Reports on Nautical Charts Standards 23 Aug. 50 JAS

E. BOAT SHEET

H-7721 (1949)

Boat sheet PBS H-1248 was constructed in the Norfolk Processing Office. Shoreline was transferred by the office from T-8301, surveyed in 1944.

*Allen L. Powell*

A. L. Powell  
Lt. (jg.) USC&GS

TIDAL NOTE

The hourly heights for the reduction of soundings in this area were furnished by the Washington Office upon request. These hourly heights are based on the tide as recorded on the standard gage located at the Naval Operating Base, Hampton Roads, Virginia. A time correction of minus 45 minutes and a high water height difference of plus 0.3 foot were applied to the observed tides, (see Director's letter of 25 March 1949, reference 36-tmo).



APPROVAL SHEET

The boat sheet and records as submitted to the Norfolk Processing Office are approved. The boat sheet and record books have been inspected daily as the work progressed. The survey is complete and adequate. No additional work is recommended.




G. R. Fish  
Lt. Comdr. USC&GS  
Chief of Party






## STATISTICS FOR HYDROGRAPHIC SURVEY H-7721 (P.B.S.-1248)

Ships - PARKER, BOWEN, STIRNI - C.S. 326

Volume No.	Day Letter	Date	No. of H.L. Sdgs.	No. of Posn's.	No. of Statute Miles of Sdgs.
I	a	4/18/49	1	102	22.3
I	b	4/21/49	1	106	14.3
II	c	4/22/49	1	94	12.2
II	d	4/26/49	2	166	18.3
II & III	e	4/27/49	1	191	25.5
III & IV	f	5/2/49		149	20.2
			<hr/>	<hr/>	<hr/>
	TOTAL		6	808	112.8

H-7721

LIST OF SIGNALS TRIANGULATION STATIONS

CAP - , ,   
HEN - CAPE HENRY L.H., 1887-1932  
INN - HYGEIA INN, 1929  
MATE -   
NIT - 

TOPOGRAPHIC STATIONS

U.S.E.D. Traverse Stations

LEO	OFF	SUE	VET
MAX	RUB	TRY	WAG

Form 567, P.C.W. 1944

LYN

HYDROGRAPHIC SIGNALS

NIP See D.R. (2 Nov. 1949 location) (next page)  
QUO See D.R.

ADDENDUM TO H-7721(1949)  
 DESCRIPTIVE REPORT FOR SURVEY PBS-H-1248

F. CONTROL STATION:

The three point fixes listed below were obtained on 2 November 1949 to "tie down" signal Nip. In plotting the position of the signal use these fixes and the cut from signal Max taken at the time the survey was made. Use the cuts from signal Nip itself as a check only.

<u>Signals</u>	<u>Angles</u>
Hen	67° - 50'
Mate	
Nite	01° - 31'
Cap - Mate	54° - 17'
Nip - Mate	09° - 56'
Hen	73° - 53'
Mate	
Nite	06° - 04'
Cap - Mate	67° - 22'
Nip - Mate	16° - 51'
Hen	37° - 13'
Mate	
Nite	35° - 03'
Nip - Mate	21° - 34'



<u>Triangulation</u> <u>Name</u>	<u>Hydro</u> <u>Name</u>
Cape Henry, Weather Bureau Signal MAST, 1939	Cap
Casemate (U.S.E.), 1939	Mate
Granite, Tower C., (U.S.E.) 1939	Nit



FATHOMETER CORRECTIONS

HYDROGRAPHIC SURVEY H-

(Field Number PBS H-1248)

LOWER CHESAPEAKE BAY, VIRGINIA

18 April - 2 May 1949

USC&GS Ships PARKER, BOWEN, STIRNI - G. R. Fish, CHIEF OF PARTY

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EQUIPMENT:

Depth recorder Type 808 (No. 120 S) was used on this survey. The transceiver units were placed inside the vessel against the skin of the launch alongside the keel about 8 ft. from the stern of the launch.

The bar check apparatus consisted of a 6 ft. 8 in. board covered with sheet metal. The ends of the board is supported by standard mahogany colored tiller rope with a phosphor-bronze wire center. The graduations are marked as described in reference No. 4621 of the Hydrographic Manual.

FIELD WORK:

No serial temperature and salinity observations were taken within the area covered by this survey.

Bar checks were taken in accordance with standard practice.

The initial setting to obtain small corrections was found to be one foot.

The bar lines were checked against a standard frequently and found to be correct.

No settlement and squat corrections were determined.

OFFICE COMPUTATION:

All bar check readings for the various depths were tabulated and a set of curves was drawn for the entire period. Corrections were scaled from the courses and tabulated. The table of corrections and the curves are attached to this report.

All fathograms have been scanned for variations of the initial setting and proper corrections entered in the sounding records.

SUMMARY:

All necessary corrections have been entered in the sounding records.

*Allen L. Powell*  
Allen L. Powell  
Lieut.(JG), USC&GS

Approved & Forwarded:

*G. R. Fish*  
G. R. Fish, Lt. Comdr., USC&GS  
Chief of Party

"A" Scale 00      -0.5      -1.0      -1.5  
 "B" Scale      -2.0      -2.5      -3.0

Bar Check Corrections  
 Field Sheet PBS H-1248  
 Ships PARKER, BOWEN & STIRNI  
 Launch No. 82  
 Fathometer No. 120S  
 18 April to 2 May 1949  
 a thru f days



Corrections "A" scale  
 0.0' to 4.0'      -0.2'  
 4.5' to 46.0'      -0.4'  
 46.5 to 55.0      -0.6'

Corrections "B" scale  
 35.0' to 38.0'      -2.2  
 38.5' to 48.0'      -2.4  
 48.5' to 54.0'      -2.6  
 54.5' to 59.0'      -2.8  
 59.5' to 63.0'      -3.0  
 63.5' to 67.5'      -3.2  
 68.0' to 72.0'      -3.4  
 72.5' to 75'      -3.6

Comp'd by  
 JRT

ABSTRACT OF BAR CHECKS  
 FIELD SHEET PBS H-1248  
 a thru f days

Date 1949	"A" Scale					"B" Scale		
	10 ft.	20 ft.	30 ft.	40 ft.	50ft.	40 ft.	50 ft.	60 ft.
4/18 a day	-0.4 -0.3	-0.5 -0.4	-0.5					
4/21 b day	(-0.7) <sup>R</sup> -0.4	(-0.8) <sup>R</sup> -0.5	(-1.0) <sup>R</sup> -0.6	-1.0	-1.0 -1.0	-3.0 -2.8	-3.0 -3.0	
4/22 c day	-0.3	-0.2	-0.2	-0.3	-0.2	-2.1	-2.0	-2.0
4/26 d day	-0.5 -0.5 -0.4 -0.2	-0.6		-0.9		-2.3		
4/27 e day	-0.2 -0.2	-0.1 -0.1	-0.3 -0.1	-0.2 -0.2	-0.2	-2.0 -2.0	-2.3 -2.2	
5/2 f day	-0.2 -0.2 -0.2 -0.3	-0.1 -0.2 -0.2	-0.4					
Total	-4.3	-4.0	-2.1	-2.6	-2.4	-14.2	-12.5	-2.0
Mean	-0.31	-0.33	-0.35	-0.41	-0.6	-2.4	-2.5	-2.0



Date	Echo depth			Vertical measurement			Instrumental correction	Remarks	
	Observed	Velocity Correction	Settlement and squat	Corrected depth	Observed	Correction			Corrected depth
4/18	34.5	-0.4		34.1	34.0		34.0	-0.1	sif M
4/21	61.1	-3.0		58.1	59.0		59.0	+0.9	
4/22	70.9	-3.4		67.5	68.0		68.0	+0.5	
4/26	63.2	-3.0		60.2	62.0		62.0	(+1.8) R	Mean <del>instrumental</del>
4/27	61.5	-3.0		58.5	59.0		59.0	+0.5	correction +0.7 +0.45

*Comparison between echo and lead line soundings*

ADDENDUM

To Accompany

HYDROGRAPHIC SURVEY H-7721 (Field No. P.B.S.-1248)

Survey H-7721 was smooth plotted by the Hydrographic  
Section of the Norfolk Processing Office.

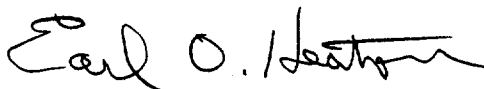
Respectfully submitted,



Hugh L. Proffitt  
Cartographer

Norfolk, Virginia  
12 January 1950

Approved and forwarded.



Earl O. Heaton  
Supervisor, SE Dist.

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Hydrography and Topography~~

3 February 1950

Division of Charts: R. H. Carstens

Plane of reference approved in  
4 volumes of sounding records for

HYDROGRAPHIC SHEET 7721

Locality Lynhaven Roads, Chesapeake Bay, Virginia

Chief of Party: G. R. Fish in 1949  
Plane of reference is mean low water, reading  
3.6 ft. on tide staff at Hampton Roads (NOB)  
13.4 ft. below B. M. 6 (1927)

Height of mean high water above plane of reference is 2.5 feet.

~~Condition of records satisfactory except as noted below~~

NOTE: These tide reducers were verified by means of Hampton Roads observations using the following allowances at the working grounds.

<u>Time of Tide</u>	<u>Height of high water</u>
-0 hr. 45 min.	+0.3 ft.

*E.C. McKay*  
*Section*  
Chief, ~~Division of Tides and Currents.~~

GEOGRAPHIC NAMES

Survey No. H-7721

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	
Virginia				(for title)					US+B	1
Chesapeake Bay										2
										3
										4
Lynnhaven Roads										5
Cape Henry										6
										7
										8
										9
										10
										11
										12
										13
										14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

Names underlined in  
red are approved.  
2-3-50. L. Heck

Hydrographic Surveys (Chart Division)

H-7721  
 HYDROGRAPHIC SURVEY NO. ....

Records accompanying survey:

Boat sheets ...1.; sounding vols. .4....; wire drag vols. ....;  
 bomb vols. ....; graphic recorder rolls 3....;  
 special reports, etc. 1 roll U.S.E.D. prints  
 .....

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

Number of positions on sheet	.....	808
Number of positions checked	.....	187
Number of positions revised	.....	-
Number of soundings revised (refers to depth only)	.....	37
Number of soundings erroneously spaced	.....	3
Number of signals erroneously plotted or transferred	.....	-
Topographic details	Time	16 hours
Junctions	Time	12 hours
Verification of soundings from graphic record	Time	8 hours

Verification by J.H. Eaton ..... Total time 144 ..... Date 7-21-50  
W.A. Buzzell (1a-95a) ..... 19 hr ..... 2-8-50

Reviewed by ..... J.A. Dismore ..... Time 16 ..... Date 23 Aug. 1950

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-7721

FIELD NO. PBS-1248

Virginia, Lower Chesapeake Bay, Cape Henry  
Surveyed in April - May 1949  
Project No. CS-326

Scale 1:10,000

Soundings:

Control:

808 Fathometer  
Hand lead

Sextant fixes on shore signals

Chief of Party - G. R. Fish  
Surveyed by - W. E. Randall and A. L. Powell  
Protracted by - A. Anninos  
Soundings plotted by - A. Anninos  
Verified and inked by - J. H. Eaton  
Reviewed by - T. A. Dinsmore, 23 August 1950  
Inspected by - R. H. Carstens

1. Shoreline and Signals

The shoreline originates with T-8301 (1944).

The origin of the signal control is given in the Descriptive Report.

2. Sounding Line Crossings

Depths at crossings are in very good agreement.

3. Depth Curves and Bottom Configuration

Except for the low-water line, the usual depth curves are adequately delineated. Soundings were obtained as close to the beach as practicable considering the draft of the launch and the low range of tide (2.5 ft.).

The bottom is smooth and undulating. No unusual bottom features are noted.

4. Junctions with Contemporary Surveys

Adequate junctions were effected with H-7703 (1948) on the east, H-7089 (1946) on the west and H-6962 (1944) on the north. The latter junction affects only a small area in the vicinity of lat.  $36^{\circ} 56.5'$ , long.  $76^{\circ} 02.0'$ . The junction with H-7750 (1948-49) on the north will be considered in the review of that survey.

5. Comparison with Prior Surveys

a. H-397 (1853) and H-446 (1854) 1:40,000

Only a few soundings from these early reconnaissance surveys fall within the limits of the present survey. No important differences in depths are noted. Within the common area, these old surveys have been superseded by later and more complete surveys.

b. H-2064 (1891) 1:20,000                      H-4038 (1918) 1:40,000  
H-3923 (1916-17) 1:30,000

The above surveys furnish excellent prior coverage over the area of the present survey during the periods indicated. No appreciable differences are noted between the prior and present surveys in inshore depths. However, in depths greater than 18 ft., present depths range from 1 to 6 ft. shallower than the prior depths. The most conspicuous example is found in lat.  $36^{\circ} 55.57'$ , long.  $76^{\circ} 03.53'$ , where prior depths of 32 ft. (in 1917) are now superseded by depths of 26 ft. In this vicinity the 30-ft. depth curve has moved about 400 meters farther offshore.

The present survey provides adequate coverage and all information on the prior surveys is superseded for future charting of the common area.

c. H-7028 (1945)W.D. 1:40,000

Two detached investigations on this wire-drag survey overlap small portions of the present survey on the north and west. Depths on the present survey are in harmony with the effective drag depths.

6. Comparison with Chart 481 (Latest print date 5/30/49)

A. Hydrography

Charted hydrography originates principally with the prior surveys which need no further consideration. The low-water line and a few inshore soundings are charted from a 1947 survey by the Corps of Engineers (Bps. 42304,

42331 and 42332). Except for retention of the low-water line, all charted hydrography is superseded by the present survey.

B. Aids to Navigation

No floating aids to navigation were located on the present survey.

No dangers to navigation were revealed on the present survey.

7. Condition of Survey


- a. The sounding records are complete; the Descriptive Report covers all matters of importance.
- b. The smooth plotting was well done.


8. Compliance with Project Instructions

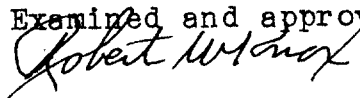
The survey adequately complies with the Project Instructions.


9. Additional Field Work

This is a basic survey and no additional field work is required.

  
H. R. Edmonston  
Chief, Nautical Chart Branch

  
L. S. Hubbard  
Chief, Section of Hydrography

Examined and approved:  
  
R. W. Knox  
Chief, Division of Charts

  
W. M. Scaife  
Chief, Division of Coastal Surveys



# NAUTICAL CHARTS BRANCH

SURVEY NO. H 7721

## Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
1/24/50	1222	J. Walker	Before <del>After</del> Verification and Review <i>Examined-not applied</i>
4-14-50	1227	<i>W. Anderson</i>	Before <del>After</del> Verification and Review " " "
4-26-50	78	M. E. Larsson	Before <del>After</del> Verification and Review <i>Examined-not applied</i>
11/14/50	481	R. Sigari	<i>after</i> " " " <i>fully applied.</i>
'51	1222 Reconstr.	H.F.M.	<del>Before</del> After Verification and Review <i>via H.O. 11940-25-3 &amp; chart 481</i>
7-10-52	3335	Chas. R. Wittmann	Before <del>After</del> Verification and Review <i>completely applied</i>
8/16/56	<i>Reconstr.</i> 481	<i>Leadhead</i>	Before <del>After</del> Verification and Review
8/24/70	78	S. McMillan	<del>Before</del> After Verification and Review <i>fully thru chrt 1222 Dwg #57</i>
			Before <del>After</del> Verification and Review
			Before <del>After</del> Verification and Review
			Before <del>After</del> Verification and Review

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.