

8772

Diag. Cht. No. 526

Form 504

U. S. DEPARTMENT OF COMMERCE  
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC  
H.F.P.  
Field No. 12-1-63 Office No. H-8772 /

LOCALITY

State NEVADA  
General locality NORTH OVERTON ARM  
Locality LAKE HEAD, NEVADA

1963

CHIEF OF PARTY  
CDR. F.A. STARK, C.&G.S.  
LT. H.N. McNEIL, C.&G.S.

LIBRARY & ARCHIVES

DATE

USCOMM-DC 5087

2228

**HYDROGRAPHIC TITLE SHEET**

H-8772

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.

H.F.P. 12-1-63

State NEVADA

General locality NORTHERN END OF OVERTON ARM

Locality LAKE MEAD, NEVADA

Scale 1:12,000

Date of survey 9 July to 25 July 1963

Instructions dated 2100B-pt, S-2-219

Project No. OPR-443

10 May 1963

Vessel SKIFF #758

Chief of party CDR. P.A. STARK, C.&G.S.--LT. H.E. McCALL, C.&G.S.

Surveyed by G.F. TREFETHEN

Soundings taken by echo sounder, hand lead, pole

Graphic record scaled by Party Personnel

Graphic record checked by Party Personnel

Protracted by \_\_\_\_\_

Soundings penciled by \_\_\_\_\_

Soundings in ~~fathoms~~ feet at ~~MKK MKK~~ Elevation above mean sea level

REMARKS: All echo soundings are in feet and tenths of feet.

All reduced soundings are converted to elevation of feet above mean sea level. Soundings on the boat sheet are elevation above mean sea

level. Only three digits were used, the first digit in 1,000, 1,100 and 1,200 were left off to make more room on the sheet for soundings.

Example: Elev: 1,126 on the boat sheet will read 126.

114° 45'

30'

15'

114° 00'

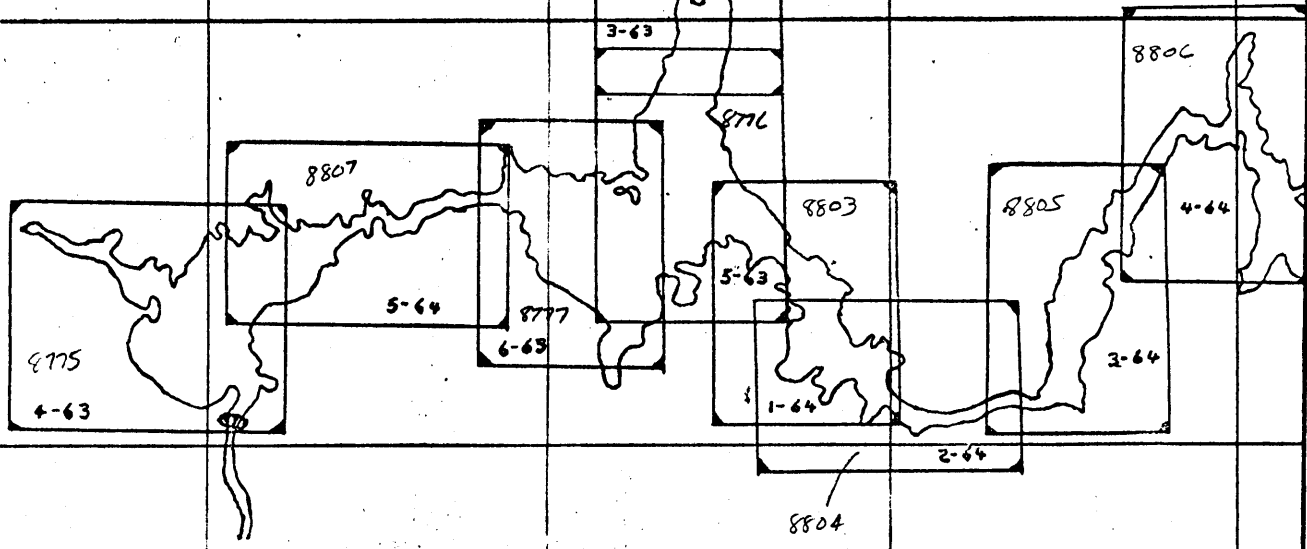
LAKE MEAD, NEVADA — ARIZONA

36°30'

30'

15'

36°00'



114° 30'

15'

114° 00'

36°45'

114° 45'

COAST & GEODETIC SURVEY  
 H. ARNOLD KARO—DIRECTOR  
 SHEET LAYOUT SKETCH  
 HYDROGRAPHIC FIELD PARTY 242  
 SCALE—1:500,000

DESCRIPTIVE REPORT  
TO ACCOMPANY  
HYDROGRAPHIC SURVEY H-8772  
(Field No. H.F.P. 12-1-63)  
PROJECT OPR-443

SCALE: 1:12,000

H.F.P. 219

CHIEF OF PARTY:

CDR. P.A. STARK, C.&G.S.  
LT. H.E. McCALL, C.&G.S.

A. PROJECT

Project OPR-443 Was completed in accordance with instructions 2100B-pt, S-2-219. Dated 10 May 1963, Lake Mead, Nevada and Arizona.

B AREA SURVEYED

The geographical limits of this sheet are from Lat. 36° 26' N. to Lat. 36° 35' N. and Long. 114° 19' W. to Long. 114° 25' W.

This sheet covers the extreme Northern end of Overton Arm, Lake Mead and the converging area of the Virgin and Muddy rivers.

This survey makes junction with contemporary survey H-8773 (H.F.P., 12-2-63). Scale 1:12,000 on the South.

This survey also makes junction with a prior Navy survey sheet No. 6 Dated 1948-49. Scale 1:12,000.

This area is covered by a prior Navy survey Sheet No. 7 Dated 1948-49. Scale 1:12,000.

Hydrography began on 9 July 1963 and was completed on 25 July 1963.

C. SOUNDING VESSEL

Vessel used for sounding was the Skiff #758 identified by Red Day letters.

#### D. SOUNDING EQUIPMENT

A Raytheon Survey Fathometer Type D.E. 723 was used on the Skiff #758. Fathometer #544 is a 200 K.C. Unit and was used on the sounding lines. Fathometer #543 is a 20 K.C. Unit and was used/on crosslines. *Simultaneously with #544*

On "b" day Positions 50 thru 72, Fathometer #543, 20 K.C., was used. It was also used all day on "e" day for sounding lines.

Fathometer #544, 200 K.C., was used from "a" day thru Pos. 49 "b" day, and from 73 "b" day thru 120 "d" day. From 1 "f" day thru 162 "g" day and from 1 "j" day to 45 "j" day.

No fathometer was used on "h" day. A lead line was used for bottom samples this day.

Two fathometers were used on "g" day for crosslines to show sedimentation.

All Echo soundings corrections were obtained by Bar Check. For Tabulation, See Appendix B.

See fathometer report for Project OPR 443 Lake Mead, Nevada and Arizona.

#### E. SMOOTH SHEET

Smooth sheet projections will be furnished on request from the Washington Office.

#### F. CONTROL

Horizontal control was obtained by Standard Visual Three Point fix methods.

Appendix A of this report contains a complete list of controls used and the sources of control.

## F. CONTROL (CON'T)

The basic control on HFP-12-1-63 was U.S. Geological Survey third-order triangulation stations. Additional topographic signals were located by telluremeter and T-2. A few hydrographic signals were cut in by sextant.

## G. SHORELINE

The shoreline was transferred from a film positive of Navy Smooth Sheet #7, dated 1948, showing the 1,200 foot and 1,150 foot contours.

The 1,200 foot contours are shown in black on Boat Sheet H.F.P. 12-1-63. The 1,150 foot contour is shown in brown.

Photogrammetry Division took photographs when the lake level was at 1,150 feet to provide revised shoreline.

## H. CROSSLINES

Crosslines were run to the extent of 8% of the regular system of sounding lines. Favorable crossings were found.

Two fathometers 200 K.C. and 20 K.C. were run on feet for crosslines to show sedimentation.

## I. JUNCTIONS

Depths at the junction with contemporary survey H-8773 H.F.P. 12-2-63 are in agreement. Contour curves can be adequately drawn at the junctions.

## J. COMPARISON WITH PRIOR SURVEYS

A comparison was made with pre-survey Navy Sheet #7 & #6, dated 1948-49, scale 1:12,000.

The comparison shows that the depths in the Virgin River are 3' to 5' shallower than the Navy Survey of 1948-49. This shoaling is due to the sediment transported by the Virgin River.

J. COMPARISONS WITH PRIOR SURVEYS cont.

The soundings in the Muddy River are ~~in~~ generally <sup>in</sup> good agreement.

K. COMPARISON WITH THE CHART

A comparison <sup>was made</sup> with Chart No. C.&G.S. 5458B 2nd. edition Oct. 17, 1955, Revised sept. 4, 1961. Scale 1;48,000.

Comparisons with the chart were made only in the area covered by sounding lines. No comparison with rocks that bare above the 1,150 foot contour were made.

No hydrography was done North of Lat.  $36^{\circ}29'.60$  in the Virgin River, due to the fact that there was not enough water in the area at the time Hydro was being done.

No Hydrography was done N.W. of Lat.  $36^{\circ}29'.00$  in the Muddy River for the same reason given in the previous paragraph.

The chart shows numerous rocks that bare above chart data. These rocks have not been proved or disproved. No recommendations for charting can be made. The level of the lake made verification of these rocks impossible.

The chart shows an anchorage at Overton Beach at Lat.  $36^{\circ}26'.83$ , Long.  $114^{\circ}21'.30$ . This anchorage was not D.P'd. or outlined because the Marina and anchorage is subject to constant moving as the Lake level rises and falls. The general area of the Marina and anchorage is about 300 meters long and extends about 200 meter offshore at the time of any Lake level. The Marina consists of small anchorages, gas, oil, and minor repair for outboard motors. It also has a restaurant motel, and Trailer Park.

K. COMPARISON WITH THE CHART cont.

It is accessible by one road, State Highway No. 12.

L. ADEQUACY OF SURVEY

This survey is considered adequate to supercede prior surveys for charting purposes up to the 1,150 foot contour. Above the 1,150 foot contour this survey is not adequate for charting.

M AIDS TO NAVIGATION

There is one fixed aid to navigation in the surveyed area.

The landmarks for charts and fixed aids to navigation will be submitted by this party. H.F.P. 219.

N STATISTICS

<u>VESSEL</u>	<u>NO. OF POSITIONS</u>	<u>NAUT. MILES OF SOUNDING</u>
SKIFF 758	1003	115.9

Total area of survey, 2.8 square Nautical miles.

Total number of bottom samples, 11.

A portable Automatic Tide Gage, Located at the Virgin River entrance provided Lake level control for this sheet H.F.P. 12-1-63.

Data for reduction of soundings were taken directly from the Marigrams without time or range corrections. See Appendix C for additional information on this station.

Respectfully submitted,  
*George A. Fernandez*  
FOR Guy F. Trefethen  
Surveying Tech.



APPENDIX A

LIST OF SIGNALS

HYDROGRAPHS SURVEY H-8772 (H.F.P. 12-1-63)

TRIANGULATION STATIONS

FAR	N-83, 1948
PAR	N-79, 1948
ROD	N-75, 1948
ZOO	N-80F, 1948

TOPOGRAPHIC SIGNALS

ABE	Master control sheet H.F.P. 12-1-63
ACT	" "
AZO	" "
BAG	" "
BIB	" "
CAB	" "
COD	" "
DAW	" "
DIF	" "
DIX	" "
EAR	" "
EGG	" "
GAD	" "
GAG	" "
HAG	" "
ICE	" "
IVY	" "
JAP	" "

TOPOGRAPHIC SIGNALS cont.

JAR	Master control sheet H.F.P. 12-1-63
KED	" "
KEN	" "
KID	" "
LAD	" "
LEO	" "
MAL	" "
MAX	" "
MUD	" "
NAT	" "
NEO	" "
NEW	" "
OAK	" "
OBI	" "
OIL	" "
PEG	" "
PIN	" "
REV	" "
RIP	" "
TAX	" "
<del>USE</del>	" "
WIT	" "

HYDROGRAPHIC SIGNALS

AMP	Vol. 5, Page 60
LOG	Master control sheet H.F.P. 12-1-63
RAT	" "
SAD	" "

HYDROGRAPHIC SIGNALS cont.

SAM

Vol. 5, Page 24

TOY

Master control sheet H.F.P. 12-1-63

APPENDIX B

ABSTRACT OF CORRECTIONS TO ECHO SOUNDINGS

<u>FATHOMETER DEPTH (Ft.)</u>	<u>CORRECTION (Ft.)</u>
SKIFF 758	
"a" day, Fath. #544	
0.0 to 7.5	-0.2
7.6 to 21.7	0.0
21.8 to 24.0	+0.2
24.1 to 33.7	+0.4
33.8 to 38.7	+0.6
38.8 to deeper	+0.8
(B) Scale	
45.0 to 50.7	+0.4
50.8 and deeper	+0.6
"b" day, Fath. #544	
0.0 to 15.8	0.0
15.9 to 19.8	+0.2
19.9 to 32.5	+0.4
32.6 to 34.5	+0.6
34.6 to 38.9	+0.8
39.0 to 45.0	+1.0
45.1 and deeper	+1.2
(B) Scale	
45.0 to 50.0	+0.4
50.1 and deeper	+0.6

APPENDIX B cont.

FATHOMETER DEPTH (Ft.)

CORRECTION (Ft)

"b" day, Fath.#543  
from Pos. 50 "b" to 72 "b"

<u>FATHOMETER DEPTH (Ft.)</u>	<u>CORRECTION (Ft)</u>
(A) Scale	
0.0 to 6.0	-0.6
6.1 to 12.0	-0.4
12.1 to 23.8	-0.2
23.9 to 33.0	0.0
33.1 to 34.6	+0.2
34.7 to 38.8	+0.4
38.9 to 44.6	+0.6
44.7 and deeper	+0.8
(B) Scale	
ALL DEPTHS	0.0

"c" day-DE 723 Fath.#544

(A) Scale	
0.0 to 15.2	0.0
15.3 to 21.0	+0.2
21.1 to 26.8	+0.4
26.9 to 32.0	+0.6
32.1 to 37.5	+0.8
37.6 to 40.2	+1.0
40.3 to 44.2	+1.2
44.3 to 48.0	+1.4
(B) Scale	
42.0 to 45.0	+0.4
45.1 and deeper	+0.6

APPENDIX B cont.

FATHOMETER DEPTH (Ft)

CORRECTION (Ft)

"d" day, Fath. #544

(A) Scale	
6.0 to 9.5	0.0
9.6 to 15.0	+0.2
15.1 to 27.0	+0.4
27.1 to 32.1	+0.6
32.2 to 36.0	+0.8
36.1 to 40.0	+1.0
40.1 to 42.0	+1.2
(B) Scale	
42.0 to 51.0	+0.4
51.1 to 60.0	+0.6

"e" day, Fath#543

(A) Scale	
0.0 to 6.0	-1.2
6.1 to 10.0	-1.0
10.1 to 14.0	-0.8
14.1 to 18.0	-0.6
18.1 to 23.7	-0.4
23.8 and deeper	-0.2

"f", "g", "j" days Fath, 544

(A) Scale	
0.0 to 12.0	0.0
12.1 to 18.0	+0.2
18.1 to 30.0	+0.4
30.1 to 34.0	+0.6

APPENDIX B cont.

<u>FATHOMETER DEPTH (Ft)</u>	<u>CORRECTION (Ft)</u>
34.1 to 36.0	+0.8
36.1 to 40.0	+1.0
40.1 to 48.0	+1.2
48.1 to end of range	+1.4
(B) Scale	
40.0 to 48.0	+0.4
48.1 to end of range	+0.6

"h" day

No Fathometer. Lead Line all day.

APPENDIX C

TIDAL NOTE

HYDROGRAPHIC SURVEY H-8772 (H.F.P. 12-1-63)

GAGE LOCATION:

Virgin River Entrance

Latitude  $29^{\circ}28'.73'$

Longitude  $114^{\circ}20'.27'$

GAGE TYPE:

Portable Automatic

STAFF:

Vitrified Scale

0.0 on staff is 1156.765

feet above Mean Sea Level.

TIME MERIDIAN:

105th.



APPENDIX ~~\*~~<sup>C</sup> (Con't)

Gage Location: Overton Arm, Lake Mead, Nevada  
 Lat. 36° 28.73'  
 Long. 114° 20.28'

Gage Type: Portable Automatic

Staffs Zeros:

<u>Staff Number</u>	<u>Date Established</u>	<u>Elevation</u>
1	16 July 1963	1168.765
2	15 August 1963	1158.720

Staffs Number 1 and 2                      Vitrified scale - no time or height corrections were applied to the results obtained from the gage in reducing soundings

Gage was used to control sheets 12-1-63, 12-2-63, and 12-3-63. Boulder Wash heights were used after 11 September 1963 for the completion of the above sheets with no corrections applied to the results obtained from the gage.

105th meridian time was used at this station.

APPENDIX D

APPROVAL SHEET TO ACCOMPANY

HYDROGRAPHIC SHEET H-8772 (H.F.P. 12-1-63)

Project OPR-443

The records, corrections and all field and office work ~~was~~ <sup>were</sup> supervised by CDR. P. A. Stark.

The descriptive report was written by Guy F. Trefethen.

The report and records for this survey are complete and adequate to the best of my knowledge.

Approved and forwarded,

*Harold E. McCall*

Lt. H.E. McCall, C.&G.S.  
Officer-in-charge

TIDE NOTE FOR HYDROGRAPHIC SHEET

March 11, 1968

Nautical Chart Division: R. H. Carstens

Plane of reference approved in  
6 volumes of sounding records for

HYDROGRAPHIC SHEET 8772

Locality: Lake Mead, Arizona - Nevada

Chief of Party: P. A. Stark (1963)

Plane of reference is mean lower lake level (which is 1100 feet  
above sea-level datum)

Tide Station Used (Form C&GS-681):

Overton Arm

Height of Mean High Water above Plane of Reference is as follows:

Remarks

  
Chief, Tides and Currents Branch



HYDROGRAPHIC SURVEY STATISTICS  
HYDROGRAPHIC SURVEY NO. 8772

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

RECORD DESCRIPTION		AMOUNT	RECORD DESCRIPTION		AMOUNT	
SMOOTH SHEET			BOAT SHEETS		1	
DESCRIPTIVE REPORT		1	OVERLAYS			
DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/SOURCE DOCUMENTS
ENVELOPES						
CAHIERS	2					
VOLUMES	12					
BOXES						

T-SHEET PRINTS (List)

SPECIAL REPORTS (List)

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				
POSITIONS CHECKED				
POSITIONS REVISED				
DEPTH SOUNDINGS REVISED				
DEPTH SOUNDINGS ERRONEOUSLY SPACED				
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED				
	TIME (MANHOURS)			
TOPOGRAPHIC DETAILS				
JUNCTIONS				
VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS				
SPECIAL ADJUSTMENTS				
ALL OTHER WORK				
<b>TOTALS</b>				
PRE-VERIFICATION BY		BEGINNING DATE		ENDING DATE
VERIFICATION BY		BEGINNING DATE		ENDING DATE
REVIEW BY		BEGINNING DATE		ENDING DATE

**VERIFIER'S REPORT**  
**HYDROGRAPHIC SURVEY, H -8772**

**INSTRUCTIONS** - This form serves to identify items of a check list in verification together with items which are separately reported to the Reviewer. The form is not to be forwarded to the Reviewer. A report, which is prepared for the Reviewer, should identify items by number and letter and will be filed in the Descriptive Report until the survey is reviewed.

**CL - Check List Items:** should be checked as having been completed during the verification processes.

**R - Report Item:** This column refers to those items reported to the reviewer and is used to indicate the items discussed.

Part I - DESCRIPTIVE REPORT	CL	R	Part III - JUNCTIONS (Continued)	CL	R
<p><b>Note:</b> The verifier should first read the Descriptive Report for general information and problems.</p> <p>1. The Descriptive Report was consulted, paragraphs checked if found satisfactory, and notations were made in soft black pencil regarding action taken. Remarks Required: -- None</p>			<p>10. Junctions with contemporary surveys were satisfactory except as follows: Remarks Required: -- Consider conditions after adjustments have been made; note adjustments made. Make special notes of Butt junctions and areas which are <b>SUPERSEDED</b>.</p>		
<p>2. Soundings originating with the survey and mentioned in the Descriptive Report have been verified and checked in soft black pencil, including latitude and longitude, together with position identification. Remarks Required: -- None</p>			<p><b>Part IV - VOLUMES</b> 11. All items affecting the plotting of the survey which are entered in the remarks columns of the sounding records were noted and check marked. In all cases appropriate action was taken and exceptions noted in the volumes. Remarks Required: -- None</p>		
<p>3. All reference to survey sheets mentioned in the Descriptive Report should include registry number and year. Remarks Required: -- None</p>			<p>12. Condition of sounding records was satisfactory except as follows: Remarks Required: -- Mention deficiencies in completeness of notes or actions for the following: (a) rocks (b) line turns (c) position values of beginning and ending of lines (d) bar check or velocity correctors (e) time recording (f) notes or markings on fathograms (g) was reduction of soundings accurately done? (h) was scanning accurate? (i) were peaks at uneven intervals missed? (j) were stamps completed? (k) references to adjacent features</p>		
<p><b>Part II - SHORELINE AND SIGNALS</b> 4. Source of shoreline signals Remarks Required: -- List all surveys a. Give earliest and latest dates of photographs b. Field inspection date c. Field Edit date d. Reviewed-Unreviewed</p>			<p><b>Part V - PROTRACTING</b> 13. All positions verified instrumentally were check marked in color in the sounding records, and verifier initialed the processing stamp. Remarks Required: -- None</p>		
<p>5. The transfer of contemporary topographic information was carefully examined and reconciled with the hydrography. Remarks Required: -- Discuss remaining differences.</p>			<p>14. The protracting and plotting of all unsatisfactory crossings were verified. Remarks Required: -- None</p>		
<p>6. The plotting of all triangulation stations, topographic stations and hydrographic signals has been checked and noted in processing stamp No. 42 on the smooth sheet. Remarks Required: -- None</p>			<p>15. All detached positions locating critical soundings, rocks, buoys, breakers, obstructions, kelp, etc., were verified and the position numbers are legible. Remarks Required: -- None</p>		
<p>7. Objects on which signals are located and which fall outside of the high-water line have been described on the sheet. Remarks Required: -- List those signals still unidentified.</p>					
<p><b>Part III - JUNCTIONS</b> <b>Note:</b> Make a cursory comparison preliminary to inking soundings in area of overlap. 8. All junctions of contemporary or overlapping sheets were transferred in colored ink and overlapping curves were made identical. Remarks Required: -- None</p>					
<p>9. The notation in slanted lettering "JOINS H--- (19 )" was added in colored ink for all verified contemporary adjoining or overlapping sheets. Those not verified are shown in pencil. Remarks Required: -- None</p>					

Part V - PROTRACTING (Continued)	CL	R	Part VIII - AIDS TO NAVIGATION	CL	R
16. The protracting was satisfactory except as follows: Remarks Required: -- Refers to protracting in general except for specific faults repeated often, or faults in control information, which required considerable replotting or adjustments.			26. All fixed aids located together with those on the contemporary topographic sheets, have been shown on the survey.  Remarks Required: -- Conflicts of any nature listed.		
17. The protractor has been checked within the last three months. Remarks Required: -- Date of check, type of protractor and number.			27. All floating aids listed in the Descriptive Report should be verified and checked in soft black pencil, including latitude and longitude and position identification.  Remarks Required: -- None		
<b>Part VI - SOUNDINGS</b> 18. All soundings are clear and legible, and critical soundings are a little larger than adjacent soundings. Remarks Required: -- None			<b>Part IX - BOAT SHEET</b> 28. The boat sheet was constantly compared with the smooth sheet with reference to notes, position of sounding lines and supplemental information. Remarks Required: -- None		
19. Sounding line crossings were satisfactory except as follows: Remarks Required: -- Discuss adjustments.			29. Heights of rocks awash were correctly reduced and compared with topographic information. Remarks Required: -- Note excessive conflicts with topographic information.		
20. The spacing of soundings as recorded in the records was closely followed; Remarks Required: -- None			<b>Part X - GENERAL</b> 30. All information on the sheet is shown in accordance with figures 82 and 83 in the Hydrographic Manual (Pub. 20-2).  Remarks Required: -- None		
21. The scanning, reduction, spacing, plotting of questionable soundings have been verified. Remarks Required: -- None			31. Unnecessary pencil notes have been removed from the sheet. Remarks Required: -- None		
22. The smooth plotting of soundings was satisfactory except as follows: Remarks Required: -- Refer to legibility, errors in spacing, and errors in numbers - but not to errors in scanning.			32. Degree, minute values and symbols have been checked; also electronic distance arcs have been properly identified and checked on the smooth sheet.  Remarks Required: -- None		
<b>Part VII - CURVES</b> 23. The depth curves have been inspected before inking. Remarks Required: -- By whom was the penciled curves inspected.			33. The bottom characteristics are adequately shown. Remarks Required: -- None		
24. The low-water line and delineation of shoal areas have been properly shown in accordance with the following: a. From T-Sheet in dotted black lines b. From soundings in orange c. Approximate position of sketched curve is dashed orange d. Approximate position of shoal area not sounded in black dashed  Remarks Required: -- None			<b>Part XI - NOTES TO THE REVIEWER</b> 34. Unresolved discrepancies and questionable soundings.		
25. Depth curves were satisfactory except as follows: (This statement should not refer to the manner in which the curves were drawn). Remarks Required: -- Indicate areas where curves could not be drawn completely because of lack of soundings. For some inshore areas a general statement is sufficient.			35. Notation of discrepancies with photogrammetric survey inserted in report of unreviewed photogrammetric survey or on copy.		
36. Supplemental information.					
Verified by			Date		

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-8772

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
661-5C	5-27-66	Charles F. Lupia	Full Part Before <del>After</del> Verification Review Inspection Signed Via Drawing No.
18687B (661-5C)	12-12-79	Raymond B. Noin RBN	<del>Full Part Before</del> <sup>adequately</sup> <del>After</del> Verification Review Inspection Signed Via Drawing No. 8B Exm Considered adequately appd
			Full Part Before After Verification Review Inspection Signed Via Drawing No.
			Full Part Before After Verification Review Inspection Signed Via Drawing No.
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Part. Appd 5-27-66 C.F.Kr