

# 8806

1131

Diag. Cht. No. 526.

Form 504

U. S. DEPARTMENT OF COMMERCE  
COAST AND GEODETIC SURVEY

## DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. HFP 12-4-64 Office No. H-8806

### LOCALITY

State NEVADA-ARIZONA

General locality GRAND WASH

Locality LAKE MEAD, NEVADA-ARIZONA

19<sup>64</sup>

CHIEF OF PARTY  
H. E. McCALL, LT., USC&GS

LIBRARY & ARCHIVES

DATE \_\_\_\_\_

USCOMM-DC 5087

8806

HYDROGRAPHIC TITLE SHEET

H-8806

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

FIELD NO.

HFP 12-4-64

State NEVADA-ARIZONA

General locality GRAND WASH

Locality LAKE MEAD, NEVADA - ARIZONA

Scale 1:12,000 Date of survey 13 FEB 1964 to 30 JULY 1964  
2100 B-pt S2-219

Instructions dated 10 MAY 1963 Project No. OPR 443

Vessel LAUNCH CS 183, LAUNCH CS 1177, SKIFF 758 and PHOTO PARTY SKIFF

Chief of party H.E. McCALL, LT., USC&GS

Surveyed by G.F. TREFETHEN and J.R. CICHY, LT. (jg), USC&GS (photo party)

Soundings taken by echo sounder, hand lead, pole \_\_\_\_\_

Graphic record scaled by PARTY PERSONNEL

Graphic record checked by PARTY PERSONNEL

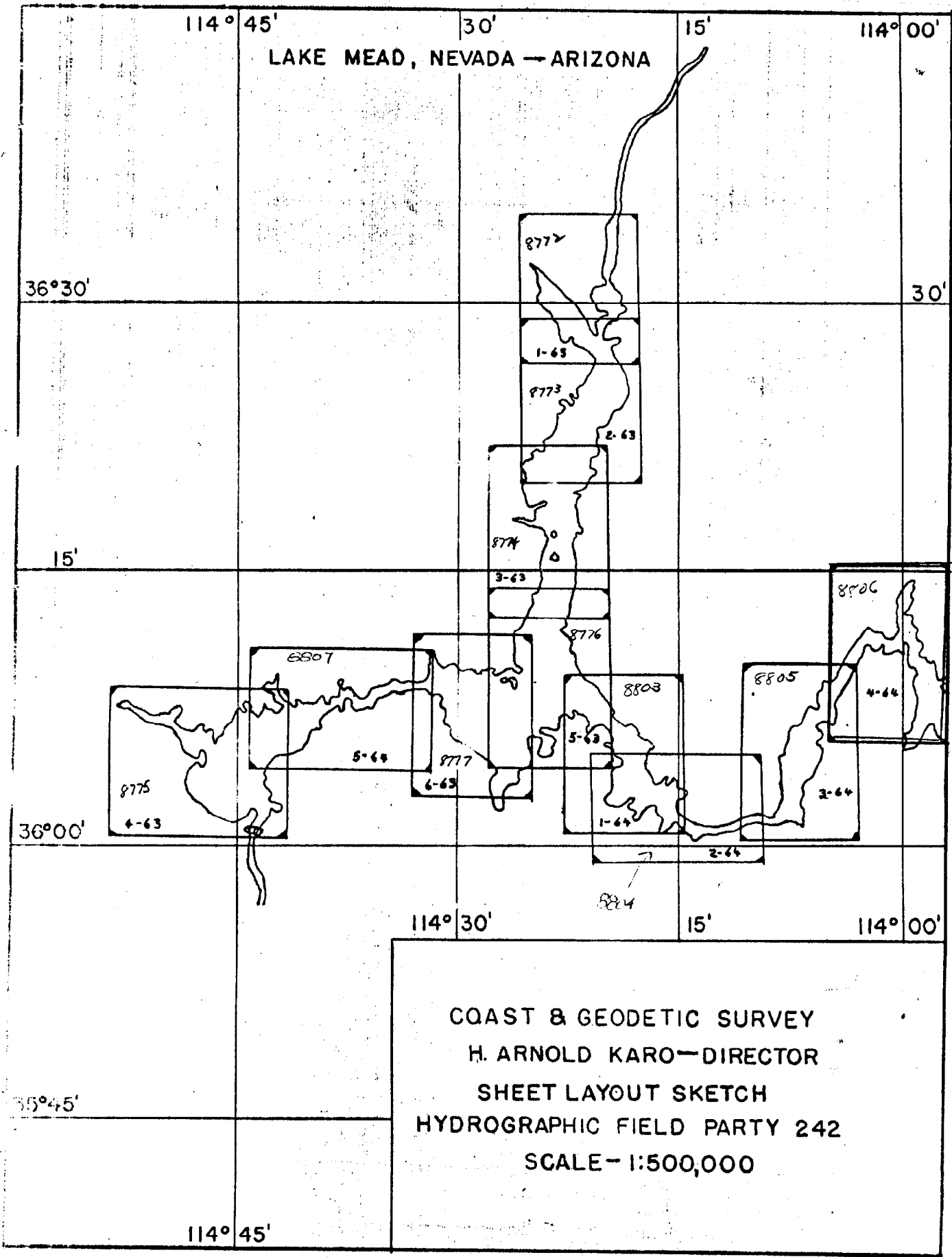
Protracted by \_\_\_\_\_

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

Soundings in ~~feet~~ feet at ~~MLW~~ ~~MSL~~ ELEVATION ABOVE MEAN SEA LEVEL

REMARKS: All echo soundings are in feet and tenths of feet. All 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, 1,200 were left off to make the boat sheet less congested. For example: Elevation 1126 on the boat sheet would be 126.

LAKE MEAD, NEVADA — ARIZONA



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-8806  
( Field No. H.F.P.-242 12-4-64 )  
Project OPR-443

SCALE: 1:12,000

CHIEF OF PARTY:

H. E. McCALL, LT., USC&GS

A. PROJECT

Project OPR-443 was completed in accordance with instructions 2100 B-pt, S2-219 dated 10 May 1963 Lake Mead, Nevada-Arizona.

B. AREA SURVEYED

The geographic limits of this sheet are from Lat.  $36^{\circ}07'N$  TO Lat.  $36^{\circ}15'N$  and from Long.  $113^{\circ}57'W$  TO  $114^{\circ}05'W$ . This sheet covers Iceberg Canyon and Grand Wash, Lake Mead, Nevada-Arizona.

Hydrography began on 13 Feb., 1964 and was completed on 30 July 1964.

This survey makes junctions with contemporary survey H-8805 ( HFP 12-3-64 ) on the Southwest. Scale 1:12,000.

This survey also makes junctions with prior Navy sheet No. 10 on the Southwest. Scale 1:12,000 dated 1948-1949.

This survey is covered by prior Navy sheet No. 11 Scale 1:12,000 dated 1948-1949.

### C. SOUNDING VESSELS

The vessels used for hydrography were launch CS 183, identified by violet day letters, launch CS 1177, identified by blue day letters, skiff 758, identified by red day letters, and photo party skiff, identified by green day letters. The photo party skiff is a 14 ft. alum. skiff used to obtain D.P.s

### D. SOUNDING EQUIPMENT

Raytheon fathometers, Type DE-723 were used on this survey.

CS 183	No. 263	200KC
	543	20KC
CS 1177	No. 265	200KC
Skiff 758	No. 263	200KC
	544	20KC

Daily bar checks were taken to determine the corrections to be applied for the 200KC unit, and Bathythermography observations were made to determine velocity corrections, beyond the range of the bar check.

For tabulation of correction and fathometer report see Appendix C.

In certain areas two fathometers were run simultaneously. The 200KC fathometer was operated on feet and the 20KC fathometer was operated on fathoms. This procedure was used to assist the fathometer operator in keeping up with the scales. On crosslines two fathometers were operated simultaneously, both on feet to show sedimentation.

In some instances the soundings from the 20 KC fathogram ~~were~~ converted from fathoms to feet and placed in the sounding volumes. Such soundings are noted in the sounding volumes by an asterisk and the word fathoms, or an abbreviation thereof, was placed in the remarks column.

### E. SMOOTH SHEET

Smooth sheet projections will be furnished on request from the Washington office. Smooth sheets to be accomplished later by the processing office.

#### F. CONTROL

All signals were located by ground survey methods. Appendix B, contains a list of signals and indicated the methods used to locate the signals.

The hydrography was controlled by visual three point fixes. In all of the coves in which hydrography was run, where there were no available fixes, the hydrographic lines were run by dead reckoning.

The normal procedure of the hydrographer spotting his position on the boat sheet from adjacent features of the shoreline was not adhered to, even though a position was given at the end of the line and " see boat sheet " was placed in the sounding volumes.

The smooth plotter should plot the lines according to time and course and ignore the " see boat sheet " positions.

Since all signals had to be located by ground survey methods, the cost and time which would have been required to locate signals in all of the coves would have been prohibitive. Thus, the procedure of dead reckoning into coves was adopted for the entire project ( OPR 443 ).

#### G. SHORELINE

The shoreline was transferred from a film positive of Navy sheet No. 11 dated 1948 outlining the 1200 foot and the 1150 foot contours.

The 1150 foot contour is shown in red and the 1200 foot contour is shown in black on the boat sheet.

When the lake level dropped to 1150<sup>4</sup> feet above MSL, aerial infrared photographs were made. This contour was not verified by hydrography due to the low lake level at the time of hydrography.

#### H. CROSSLINES

Crosslines were run in excess of 8 %.

Favorable crossings were found.

#### I. JUNCTIONS

Depths at the junctions with contemporary survey H-8805 ( HFP 12-3-64 ) are in agreement. Contour curves can be adequately drawn at the junction.

## J. COMPARISONS WITH PRIOR SURVEYS

Comparison with Navy sheet No. 11 1948-1949, Scale 1:12,000.

The prior survey was of a reconnaissance nature and no rocks or shoals were investigated.

A comparison with prior surveys show that in some areas of this sheet, soundings are shoaler by 100 ft. or more. This sheet has completely changed due to the silt deposited in this area. No hydrography was run East of Paiute Point. This area was bare at the time of hydrography.

## K. COMPARISION WITH THE CHART

A comparison with chart No. C&GS 5459B 2nd. edition, Oct. 24, 1955, revised Sept. 2, 1963 Scale 1:48,000.

All rocks and reefs indicated on the chart West of Paiute Point were plotted on the boat sheet in red pencil with their respective elevations indicated in pencil.

The following is a list of rocks and reefs that were investigated:

### 1. ROCK

Charted pos.	Lat.	36°10.08'
	Long.	114°04.36'
Charted elev.		1115
New elev.		1107
Located on		3 k-day photo party skiff

It is recommended that the new elevation be charted.

*App'd*

### 2. ROCK

Charted pos.	Lat.	36°11.08'
	Long.	114°03.66'
Charted elev.		1112
New elev.		1116
Located on		14 b-day photo party skiff

This is not a rock but a mud bar. It is recommended that the new elevation be charted.

*App'd*

K.COMPARISION WITH THE CHART(cont)

3.ROCK

Charted pos.	Lat.	36°11.52'
	Long.	114°03.31'
Charted elev.		1150
New elev.		1137
Located on		89 a-day CS 1177

It is recommended that the new elevation be charted.  
This is also the position of signal REE

*Appd*

4.ROCK

Charted pos.	Lat.	36°11.75'
	Long.	114°03.39'
Charted elev.		1123
New elev.		1122
Located on		4 b-day photo party skiff

It is recommended that the charted elevation be retained.

*No Corr*

5.ROCK

Charted pos.	Lat.	36°11.51'
	Long.	114°02.53'
Charted elev.		1100

The area was investigated and no rock was found. A rock was found about 150 meters N.W. of this rock at Lat. 36°11.56 Long. 114°02.63 with a elevation of 1132. Located on 27 b-day Launch CS 183. It is recommended that the new rock be charted.

*Appd*

6.ROCK

Charted pos.	Lat.	36°11.03'
	Long.	114°02.61'
Charted elev.		1144
New elev.		1152
Located on		11a-day photo party skiff

It is recommended that the new elevation be charted.

*Appd*



### L.ADEQUACY OF SURVEY

This survey is adequate to supercede prior surveys up to the 1150 foot contour. The actual hydrography covered only the area West of Paiute Point and up to about the 1125 foot contour. Above the 1150 foot contour this survey is not adequate for charting.

The area East of Paiute Point and South to Pierce Ferry anchorage was surveyed by ground survey methods and photogrammetric methods to show the 1130, 1140, 1150 and up contour curves.

### M.AIDS TO NAVIGATION

There are no lighted aids to navigation on this sheet. There is a light~~ed~~ post (which is just the concrete case with no light) at signal LIT (N-515,1948). The light post was located by the U.S. Geological Survey in 1948.

There are reef markers on some of the numerous reefs. All reef markers were located. The reef markers are placed at the highest part of the reef, by the National Park Service.

The Standard National Park Service reef marker is a hard, black, rubber cylinder which is between 4.0 and 4.5 feet in length with an outside diameter of 6 inches. It is bolted to a pipe which is embedded in concrete at the top of the reef. None of the reef markers are lighted. The top two feet of the reef marker is flexible so that if hit by a boat, it would bend and probably not inflict any serious damage.

### N.STATISTICS

Launch	No. of pos.	NM of sounding lines
CS 183	284	37.8
CS 1177	87	8.5
Skiff 758	236	29.0
photo party skiff	112	0.0
	<u>719</u>	<u>75.3</u>
Total area of survey	4.3 sq. n m	
Total number of bottom samples	5	

Tide gages located at Hualpai Wash and Hoover Dam provided lake level control for this sheet H-8806 (HFP 12-4-64). For additional information concerning Tide gage see Appendix A of this report.

O. MISCELLANEOUS

Ahand level was used to run levels to points above the existing lake level.

The elevation shown in the sounding volumes and on the boat sheet of reefs marked by the National Park Service reef markers are to the top of the reef and not to the top of the reef markers.

The term shoreline as used in this report and in the sounding volumes is the shoreline of the lake at the time of hydrography which for this sheet varies from a lake level of 1131 to a lake level of 1108.

A contour sheet (HFP 12-4-64) has been made of this sheet. Contours were drawn at 10 foot intervals. The originals have been sent to the Bureau of Reclamation at Boulder City, Nevada. A copy has been sent to the Washington office.

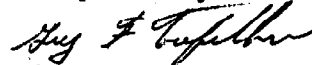
The following scheme was used for placing contours on the boat sheet.

CONTOUR ft. above MSL	COLOR
1200	black
1150	red
1100	orange
1050	green

A traverse was run in the area of God's Pocket Lat.  $36^{\circ}11.00'$  Long.  $114^{\circ}00.00'$  by the photo party. This work will be submitted with the sounding record for this sheet (Traverse Measurements Vol. #1). The traverse was run on h-day and j-day identified by green day letters on the boat sheet (photo party skiff).

The original field work in Vol. 5 of this sheet was copied over in Vol. 5A and traverse Vol. # 1, to help clarify the sounding record for smooth plotting.

Respectfully submitted,



Guy F. Trefethen  
Surveying Tech.

APPENDIX A (Con't.)

Gage Location: Hualpai Wash, Lake Mead,  
 Arizona  
 Lat. 36° 01.2'  
 Long. 114° 07.5'

Gage Type: Portable Automatic

Staffs Zeros:

<u>Staff Number</u>	<u>Date Established</u>	<u>Elevation</u>
1	31 December 1963	1126.868
2	9 March 1964	1117.015

Gage was used to control boat sheets 12-1-64, 12-2-64, 12-3-64, and 12-4-64. No time or heights corrections were applied to the results obtained from the gage for reducing soundings. Gage was discontinued on 12 May 1964 and removed 7 July 1964. Hoover Dam gage was used for the remainder of the project on the above sheets without any time or height corrections applied to the results obtained from the gage in reducing soundings.

120th meridian time was used at this station.

APPENDIX B

The basic control on H-8806 (HFP 12-4-64) was USGS third-order Triangulation stations.

The majority of the signals were located as intersecting stations . The computations and field data will be submitted with the control sheet. The computations are in loose leaf binders and are divided into sections by boat sheet. Hydro signals were located by sextant.

LIST OF SIGNALS

Hydrographic survey H-8806 (HFP 12-4-64)

Triangulation stations

ALL	A-86, 1948	LIT	N-151, 1948
BES	A-79, 1948	LIZ	A-80, 1948
CAN	A-71, 1948	LOR	N-148, 1948
CAR	A-83, 1948	MIT	A-82, 1948
DEB	A-74, 1948	NAN	A-89, 1948
DOT	A-81, 1948	PEG	A-84, 1948
FAY	A-90, 1948	RAN	N-149, 1948
GAL <sup>N-145</sup>	N-145, 1948	SAL	A-796, 1948
GIN	A-72, 1948	SON	A-88, 1948
GUY	N-146, 1948	SUE8	A-73, 1948
JAN	A-78, 1948		A-93, 1948
LAY	A-69, 1948		A-94, 1948
			A-97, 1948

The source of this list of ( topo&hydro ) signals is Master Control sheet (HFP 12-4-64) except as noted.

Topographic signals

FAR	KEN (Grand Wash #2)
KID	LOU (Grand Wash #1)
KIT	OLD
	REE

Hydro signals

BEL  
BET VOL.5A, page 19  
BUD  
NEW  
PAW  
RAT  
TAR  
TOM VOL.4, page 16

FATHOMETER CORRECTIONS  
 HYDROGRAPHIC SURVEY H-8806 - (12-4-64)  
 Lake Mead, Nevada - Arizona

Vessel: Launch CS-183  
 Day Letters: a,b,c,d  
 Fath. No: DE-723 - #263

A RANGE

0.0 to 16.0 +0.4  
 16.0 to 36.0 +0.2  
 36.0 to 50.0 0.0

B RANGE 0.0  
 C RANGE -0.3  
 D RANGE -0.5  
 E RANGE -0.8  
 F RANGE -0.9

B RANGE

40.0 to 72.0 +0.2  
 72.0 to 90.0 -0.0

C RANGE -0.4  
 D RANGE -0.7  
 E RANGE -1.0  
 F RANGE -1.3

Note: corrections above were  
 taken from curve for sheet  
 12-3-64-CS-183-u day

\*Note: corrections above were taken  
 from curve for sheet 12-3-64 -  
 CS-183 - days d,e,f,h

Vessel: Launch CS-1177  
 Day Letters: a  
 Fath. No: DE-723 - #265

Vessel: Launch CS-183  
 Day Letters: e  
 Fath. No: DE-723 - #265

A RANGE

0.0 to 5.0 +0.6  
 5.0 to 24.0 +0.4  
 24.0 to 50.0 +0.2

A RANGE 0.0  
 B RANGE -0.4  
 C RANGE -0.8  
 D RANGE -1.1  
 E RANGE -1.4  
 F RANGE -1.7

Vessel: Skiff 758  
 Day Letters: a,b  
 Fath. No: 723- #263

A SCALE

0.0 to 0.3 -1.0  
 0.3 to 0.7 -1.2  
 0.7 to 24.0 -1.4  
 24.0 to 40.0 -1.6  
 40.0 to 44.0 -1.8  
 44.0 to end -2.0

APPENDIX D

Approval sheet to accompany Hydrographic Sheet H-8806  
( HFP 12-4-64 ).

Project OPR-443

The records, corrections and all field work and office  
work ~~was~~<sup>were</sup> supervised by


H.E.McCALL, LT., USC&GS

This descriptive report was written by

GUY F. TREFETHEN, SURVEYING TECH.

This survey was conducted prior to the time I was assigned  
to this party. This report was written after my reporting.

Approved and Forwarded,



RICHARD E. ALDERMAN, LCDR., USC&GS

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 8806

Locality: Lake Mead, Nevada - Arizona

Chief of Party: H. E. McCall (1964)

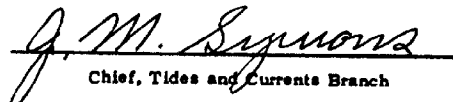
Plane of reference is mean lower lake level (which is 1100 feet  
above sea-level datum)

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

Hualpai Wash  
Hoover Dam

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

Remarks

  
Chief, Tides and Currents Branch





**HYDROGRAPHIC SURVEY STATISTICS**  
**HYDROGRAPHIC SURVEY NO. 8806**

**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	1					
VOLUMES	6					
BOXES						

T-SHEET PRINTS (*List*)

SPECIAL REPORTS (*List*)

1 Cahier - Misc. Data filed with H-8772.

**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		1		
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 - 8806

**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></p> <p>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></p> <p>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></p> <p>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></p> <p><b>Note:</b> Make a cursory comparison preliminary to inking soundings in area of overlap.</p> <p>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 - BOATSHEET</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		

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. HL-8806

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-SC	6/15/66	R. D. House	<del>Part Before</del> Review Inspection Signed Via Drawing No.
18687B (661-SC)	12-12-79	<del>Thomas B. Morris</del> R. D.	<i>adequately</i> <del>Part Before After Verification</del> Review Inspection Signed Via Drawing No. <i>BB</i> Exam; Considered adequately app'd
			Full Part Before After Verification Review Inspection Signed Via Drawing No.
			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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