

8803

1123

Diag. Cht. No. 526.

Form 504

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. HFP 12-1-64 Office No. H-8803

LOCALITY

State NEVADA - ARIZONA

General locality TRIPLE BAR

Locality LAKE MEAD

19 64

CHIEF OF PARTY
P. A. STARK, CDR., USC&GS
H. E. McCALL, LT., USC&GS

LIBRARY & ARCHIVES

DATE _____

USCOMM-DC 5087

8803

HYDROGRAPHIC TITLE SHEET

H - 8803

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. 12-1-64

State NEVADA * ARIZONA

General locality TEMPLE BAR

Locality LAKE MEAD, NEVADA - ARIZONA

Scale 1:12 000 Date of survey JAN. 2, 1964 TO APRIL 22, 1964
2100 B-pt, S2-219

Instructions dated 10 MAY 1963 Project No. O P R -443

Vessel LAUNCH GS 1177 AND LAUNCH GS 183

Chief of party P.A. STARK, CDR., USC&GS AND H.E. McCALL, LT., USC&GS

Surveyed by GUY F. TREFETHEN AND RICHARD H. ALLEBRITTON, LT. (JG), USC&GS

Soundings taken by echo sounder, hand lead, pole _____

Graphic record scaled by PARTY PERSONNEL

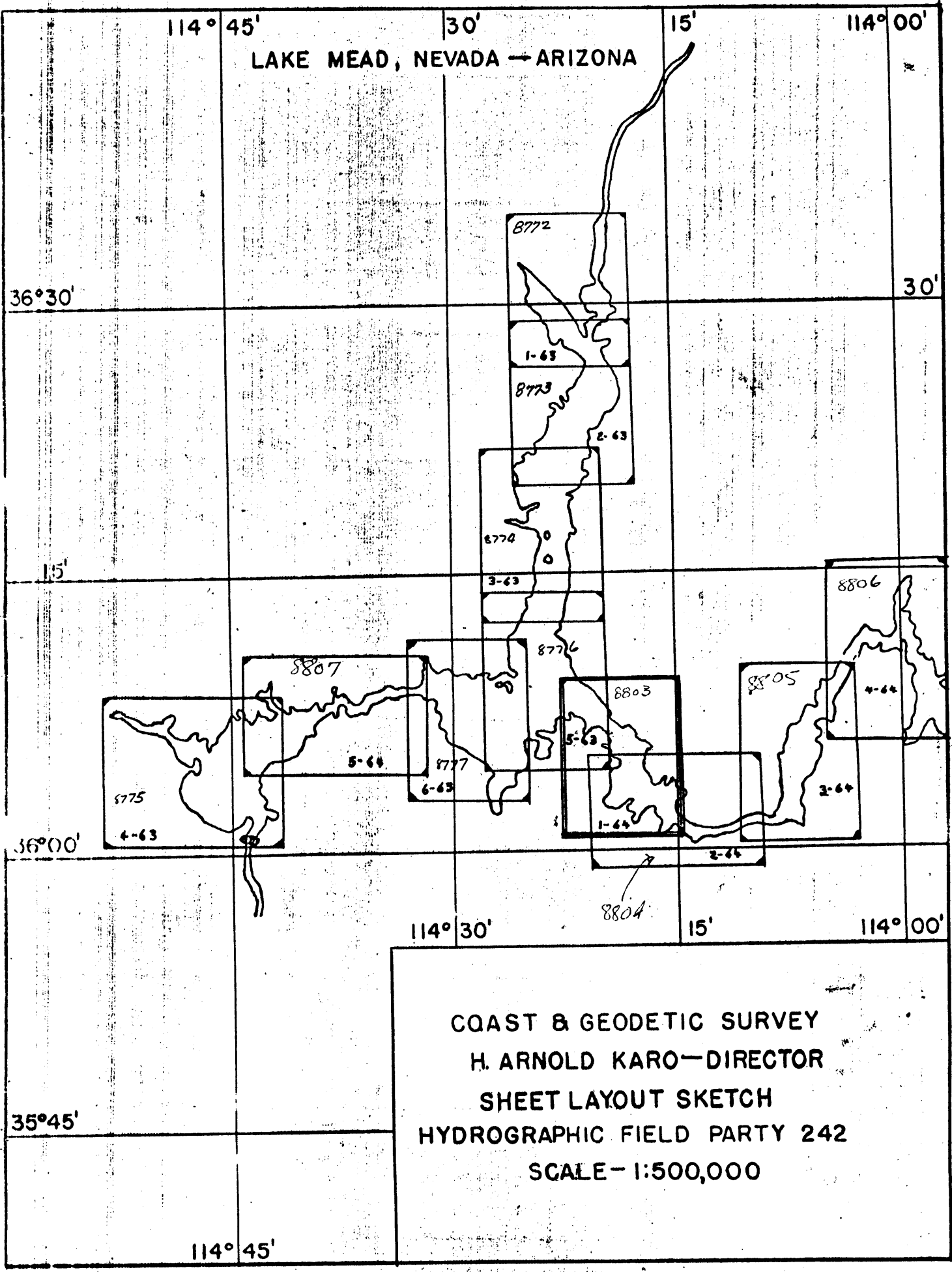
Graphic record checked by PARTY PERSONNEL

Protracted by _____

Soundings penciled by _____

Soundings in fathoms feet at MLW MLLW ELEVATION ABOVE MSL

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, 1100 and 1200 were left off to
make the sheet less congested. For example: Elev. 1127 on the boat
sheet would be 127.



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-8803
(Field No. H.F.P. 12-1-64)
Project OPR-443

SCALE: 1:12000

HFP 219

CHIEF OF PARTY:

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

* * * * *

A. PROJECT

Project OPR-433 was completed in accordance with instructions 2100B-pt, S2-219 dated 10 May 1963, Lake Mead, Nevada-Arizona.

B. AREA SURVEYED.

The geographical limits of this sheet are from Lat. $36^{\circ}02'N$ to Lat. $36^{\circ}09'N$ and Long. $114^{\circ}17'W$ to Long. $114^{\circ}22'W$.

The survey covers Temple Bar Anchorage, Trail Rapids Bay, Teal Coves, Delmar Bay, and Grebe Bay.

This survey makes junction with contemporary survey H-8776 (HFP 12-5-63) on the Northwest and H-8804 (HFP 12-2-64) on the Southeast.

This survey also makes junction with Navy sheet No.4 dated 1948-1949, Scale 1:12,000 on the Northwest and Navy sheet No.

9 dated 1948-1949, Scale 1:12,000 on the Southeast.

This survey area was covered by Navy sheet No.8 dated 1948-1949, Scale 1:12,000.

Hydrography began on January 2,1964, and was completed September 22,1964.

C. SOUNDING VESSEL

The vessels used were Launch CS 1177, designated by blue day letters, and Launch CS 183 designated by violet day letters.

D.SOUNDING EQUIPMENT

On Launch CS 1177 the following Raytheon DE 723 fathometers were used:

Number	263	200 KC
Number	265	200 KC
Number	263	20 KC
Number	544	20 KC
Number	549	20 KC

On Launch CS 183 the following Raytheon DE 723 fathometers were used:

Number	263	200 KC
Number	265	200 KC
Number	543	20 KC

In certain areas two fathometers were run simultaneously. The 200 KC fathometer was operated on feet and the 20 KC was operated on fathoms. This procedure was used to assist the fathometer operator in keeping up with the scales. On cross-lines 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 fahoms, or an abbreviation thereof, was placed in the remarks column.

Daily bar checks were taken to determine the corrections to be applied for the 200 KC unit. Bathythermography observations were made to obtain temperatures at depths beyond the range of the bar checks.

E. SMOOTH SHEET

To be completed by smooth plotter.

F. CONTROL

All signals were located by ground survey methods. Appendix B contains a list of signals and indicates 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 lines 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} ~~position~~ of Navy sheet No.8 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 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 contemporary surveys H-8776 (HFP 12-5-64) and H-8804 (HFP 12-2-64) are in agreement, and contours can adequately be drawn at the junctions.

J. COMPARISONS WITH PRIOR SURVEYS

Comparison with Navy sheet No.8, 1948-1949 Scale 1:12,000:

The prior survey was of a reconnaissance nature and since no shoals or rocks were investigated, an adequate comparison can not be made.

In general, the depths of this survey are shoaler than the depths of the prior survey. This is probably due to silt.

K. COMPARISON WITH THE CHART

Chart: C&GS 5459 A
2nd Edition Oct., 1955
Revised Sept. 2, 1963
Scale - 1:48,000

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

Recommendation is made that the following reefs and rocks be deleted from the chart:

1. ROCK
Charted pos. Lat. 36°06' .51 N
 Long. 114°21' .68 W
Charted elev. 1140 ✓ *Deleted*
2. ROCK
Charted pos. Lat. 36°06' .60 N
 Long. 114°21' .61 W
Charted elev. 1140 ✓ *Deleted*
3. ROCK
Charted pos. Lat. 36°05' .89 N
 Long. 114°19' .72 W
Charted elev. 1117 ✓ *Deleted*
4. ROCK
Charted pos. Lat. 36°05' .71 N
 Long. 114°19' .97 W
Charted elev. 1133 ✓ *Deleted*
5. ROCK
Charted pos. Lat. 36°07' .15 N
 Long. 114°19' .91 W
Charted elev. 1100 ✓ *Stat - 1098' sudy on B.S.*

Searched for

The above five rocks were ~~investigated~~ at a lake level of 1123 and no evidence of their existence was found.

The following rocks, reefs and ledges exist but were not investigated:

1. ROCK

Charted pos.	Lat.	36°05' .59 N
	Long.	114°17' .69 W
Charted elev.		1176 ✓

This is not a rock. It is a reef. It's position and elevation are approximately correct. No fix available at this point. *No Corr*

2. ROCK

Charted pos.	Lat.	36°08' .11 N
	Long.	114°20' .65 W
Charted elev.		1158 ✓

This rock should be charted as it is presently charted. *No Corr*

3. REEF

Charted pos.	Lat.	36°02' .93 N
	Long.	114°20' .28 W
Charted elev.		1185 ✓

This rock is above the high water line. *Add 1200' curve*

4. REEF

Charted pos.	Lat.	36°02' .90 N
	Long.	114°20' .50 W
Charted elev.		1187 ✓

No fix was available. The position and elevation as charted are approximately correct. *No Corr*

5. ROCK

Charted pos.	Lat.	36°02' .87 N
	Long.	114°20' .39 W
Charted elev.		1165 ✓

No fix was available. The position and elevation as charted are approximately correct.

No Corr

6. REEF

Charted pos.	Lat.	36°02' .70 N
	Long.	114°20' .52 W
Charted elev.		1192

No fix was available. The position and elevation as charted are approximately correct.

No Corr

7. REEF

Charted pos.	Lat.	36°02' .81 N
	Long.	114°18' .51 W
Charted elev.		1165

shown as 1145'

This reef has signal ART and has a National Park Service reef marker on it. An elevation of this reef was not obtained. It was located at a lake level of 1140. Photogrametric manuscript T-12571 showing the 1150 foot contour does not show the reef. Thus, it can be concluded that the true elevation is between 1140 feet and 1150 feet. ✓

L. ADEQUACY OF SURVEY

This survey is adequate to supercede prior surveys up to the 1150 foot contour. The actual hydrography covered only that area up to the 1123 foot contour, but all rocks, reefs and ledges up to the 1150 contour were located and an elevation determined except for the exceptions noted in the previous section of this report. Above the 1150 foot contour this survey is not adequate for charting

M. AIDS TO NAVIGATION

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 and are maintained by the National Park Service.

The standard National Park Service reef marker is a hard, black rubber cylinder which is 4.0 feet to 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 enough that if hit by a boat, it would bend and probably not inflict any serious damage to the boat.

A lighted black and white buoy is maintained by the National Park Service at the Temple Bar Anchorage. At the time of hydrography the buoy was located at Lat. $36^{\circ}02'.45$ N and Long. $114^{\circ}18'.84$ W. This buoy is moved as the lake level changes.

N. STATISTICS

LAUNCH	No. of Positions	Nautical Miles of sounding lines
CS 1177	1391	151.9
CS 183	1234	134.4
TOTAL	2625	286.3

Total Area of Survey 10 sq. N Miles
Total Number of bottom samples 10

A portable automatic tide gage located at Hualpai Wash provided lake level control up to May 12, 1964 for this sheet. The Stevens Standard Tide Gage at Hoover Dam was used for lake level control for Sept. 18, 1964 and Sept. 22, 1964.

Data for reduction of soundings was taken directly from the manigram without time or range corrections. See Appendix A for additional information concerning tides.

O. MISCELLANEOUS

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

The elevations shown in the sounding volume and on the boat sheet for reefs which are marked by National Park Service reef markers are to the top of the reef and not to the top of the reef marker.

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 is approximately the same as the 1123 foot contour.

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

<u>CONTOUR</u> (feet above MSL)	<u>COLOR</u>
1200	black
1150	red
1100	orange
1050	green
1000	red
950	blue
900	red
850	orange
800	blue
750	violet

Respectfully submitted,
George L. Fernandez
FOR: Richard H. Allbritton
LTJG., USC&GS

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-8803 (HFP 12-1-64) was USGS third-order triangulation stations. Three topographic stations (marked) were established near the Temple Bar anchorage and located as intersecting stations, using a wild T-2 and 8-plate settings.

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

The order of material in a section, designated by a boat sheet field number, is as follows:

1. Abstract of Directions (Form 470)
2. List of Preliminary Grid Azimuths (Form 758)
Reference to the proper field volume and page (Form 251), Observations of Horizontal Directions, is made on the forms.
3. Position of Intersected Station (Form 157). The signals are arranged in alphabetical order in this subsection.

APPENDIX B (cont.)

Source of this list of signals is Master Control Sheet 12-1-64
except as noted.

(This list includes all signals used thru "p" day Vol. 12)

HFP 12-1-64

TRIANGULATION

ALE	(N-106,1948)	QUO	(A-37,1948)
DAN	(N-105,1948)	ROT	(N-112,1948)
EGG	(A-36,1948)	SIR	(N-109,1948)
FEZ	(A-32,1948)	TUB	(A-39,1948)
FRY	(A-40,1948)	WAX	(N-108,1948)
GEM	(N-110,1948)	ZAG	(A-34,1948)
GUY	(N-111,1948)	ZIG	(N-107,1948)
JAP	(A-33,1948)		

TOPOGRAPHIC (m)

BAR (1964)
SEA (BAY, 1964)
TEMPLE (1964)

APPENDIX B (cont.)

TOPOGRAPHIC

ABE	NIX
ART	OIL
ASK	PAR
AZO	PIN
BAY	POI
BUT	POL
CAM	RAP
DEL	REB
DOG	SET
DOT	SIG
EGO	SIS
GOB	SUB
HAS	TEA
HAY	THE
ICE	TOM
JAR	VIM
JOE	WAS
KIT	WHO
LIT	WOO
NAG	

APPENDIX B (cont.)

HYDROGRAPHIC

ERG

FED

LAC

LAN

NOE

NON

OFF

TON

FATHOMETER CORRECTIONS
 HYDROGRAPHIC SURVEY #8893 - (12-1-64)
 Lake Mead, Nevada - Arizona

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

A SCALE

0.0 to 24.0 +0.4
 24.0 to 48.0 +0.2
 48.0 to end of scale 0.0

B SCALE

40.0 to 54.0 +0.6
 54.0 to 90.0 +0.8

B SCALE

48.0 to 71.0 +0.2
 71.0 to 84.0 0.0
 84.0 to end of scale +0.2

C SCALE +0.2
 D SCALE 0.0
 E SCALE -0.3
 F SCALE -0.5
 G SCALE -0.5
 H SCALE -0.5

C SCALE -0.1
 D SCALE -0.3
 E SCALE -0.5
 F SCALE -0.8
 G SCALE -1.0
 H SCALE -1.3

Vessel: Launch CS-183
 Day Letters: m,n,p
 Fath. No: DE-723 - #265

A SCALE

0.0 to 20.4 +0.6
 20.6 to 34.0 +0.8
 34.2 to 50.0 +1.0

Vessel: Launch CS-183
 Day Letters: g,h,j,k,l
 Fath. No: DE-723 - #265

A SCALE

0.0 to 6.0 +0.4
 6.0 to 30.0 +0.6
 30.0 to 50.0 +0.8

B SCALE +0.8
 C SCALE +0.2
 D SCALE -0.0
 E SCALE -0.2
 F SCALE -0.6

FATHOMETER CORRECTIONS
 HYDROGRAPHIC SURVEY H-8803 - (12-1-64)
 Lake Mead, Nevada - Arizona

Vessel: Launch CS-1177
 Day Letters: r,s
 Fath. No: DE-723 - #263

Fath. Depth (ft.)	Corr. (ft.)	<u>B SCALE</u>	
0.0 to 12.0	0.0	48.0 to 49.0	+0.8
12.1 to 16.0	+0.2	49.1 to 52.0	+1.0
16.1 to 20.0	+0.4	52.1 to 56.5	+1.2
20.1 to 23.5	+0.6	56.6 to 66.0	+1.4
23.6 to 26.5	+0.8	66.1 to 80.5	+1.6
26.6 to 30.5	+1.0	80.6 to 90.0	+1.8
30.6 to 47.5	+1.2		
47.6 to 51.5	+1.4		
51.6 to 55.5	+1.6	C SCALE	+1.4
55.6 to 58.5	+1.8	D SCALE	+1.4
58.6 to 61.5	+2.0	E SCALE	+1.2
61.6 to 65.5	+2.2	F SCALE	+1.0
65.6 to 146.0	+2.4	G SCALE	+0.8
146.5 to 160.0	+1.7		
160.5 to 167.5	+1.2		
168.0 to 172.5	+0.7		
173.0 to 190.0	+0.2		
190.5 to 246.0	0.0		

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

A SCALE

0.0 to 6.0	0.0
6.1 to 9.0	+0.2
9.1 to 18.5	+0.4
18.6 to 30.0	+0.6
30.1 to 33.0	+0.8
33.1 to 41.5	+1.0
41.6 to 48.0	+1.2

FATHOMETER CORRECTIONS
 HYDROGRAPHIC SURVEY H-8803 - (12-1-64)
 Lake Mead, Nevada - Arizona

Vessel: Launch CS-1177
 Day Letters: a,b,c,d
 Fath. No: DE-723 - #263

Vessel: Launch CS-1177
 Day Letters: j,k,l,m,n,p,q
 Fath. No: DE-723 - #265

A SCALE

0.0 to 41.2 -0.0
 41.2 to 50.0 -0.2

B SCALE

48.0 to 74.4 -0.2
 74.4 to 83.0 -0.4
 83.0 to 90.0 -0.6

C SCALE -0.4
 D SCALE -0.5
 E SCALE -0.7
 F SCALE -0.9
 G SCALE -1.2

Vessel: Launch CS-1177
 Day Letters: e,f,g,h
 Fath. No: DE-723 - #265

A SCALE 0.0
 B SCALE 0.0
 C SCALE -0.4
 D SCALE -1.0
 E SCALE -1.2
 F SCALE -1.3
 G SCALE -1.4

A SCALE

6.0 to 7.5 +0.4
 7.5 to 10.5 +0.6
 10.5 to 15.5 +0.8
 15.5 to 20.0 +1.0
 20.0 to 24.5 +1.2
 24.5 to 39.0 +1.4
 39.0 to 48.0 +1.6

B SCALE

48.0 to 54.0 +1.0
 54.0 to 73.0 +1.2
 73.0 to 90.0 +1.4

C SCALE +0.8
 D SCALE +0.8
 E SCALE +0.6
 F SCALE +0.4
 G SCALE +0.4

APPENDIX D

Approval sheet to accompany Hydrographic Sheet H -8803
(HFP 12-1-64).

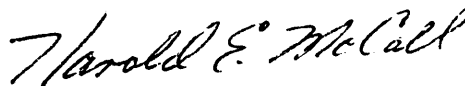
Project OPR 443

The records, corrections and all field and office work ~~was~~^{were}
supervised by P.A.STARK,CDR.,USC&GS and H.E.McCALL,LT.,USC&GS.

This descriptive report was written by RICHARD H.ALLBRITTON,
LT.(jg), USC&GS.

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

Approved and forwarded,



H.E.McCALL,LT.,USC&GS
Officer - in - Charge

TIDE NOTE FOR HYDROGRAPHIC SHEET

March 11, 1968

Nautical Chart Division: R. H. Carstens

Plane of reference approved in
13 volumes of sounding records for

HYDROGRAPHIC SHEET 8803

Locality: Lake Mead, Nevada - Arizona

Chief of Party: P. A. Stark; 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
Boulder Wash

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

Remarks


Chief, Tides and Currents Branch

HYDROGRAPHIC SURVEY STATISTICS
HYDROGRAPHIC SURVEY NO. 8803

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	13					
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				
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				
TOTALS				
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 - 8803

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>Note: 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 SUPERSEDED.</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>Part IV - VOLUMES</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>Part II - SHORELINE AND SIGNALS</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>5. The transfer of contemporary topographic information was carefully examined and reconciled with the hydrography. Remarks Required: -- Discuss remaining differences.</p>			<p>Part V - PROTRACTING</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>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>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>14. The protracting and plotting of all unsatisfactory crossings were verified. Remarks Required: -- None</p>		
<p>Part III - JUNCTIONS</p> <p>Note: 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>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>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
<p>16. The protracting was satisfactory except as follows:</p> <p>Remarks Required: -- Refers to protracting in general except for specific faults repeated often, or faults in control information, which required considerable replotting or adjustments.</p>			<p>26. All fixed aids located together with those on the contemporary topographic sheets, have been shown on the survey.</p> <p>Remarks Required: -- Conflicts of any nature listed.</p>		
<p>17. The protractor has been checked within the last three months.</p> <p>Remarks Required: -- Date of check, type of protractor and number.</p>			<p>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.</p> <p>Remarks Required: -- None</p>		
<p>Part VI - SOUNDINGS</p> <p>18. All soundings are clear and legible, and critical soundings are a little larger than adjacent soundings.</p> <p>Remarks Required: -- None</p>			<p>Part IX - BOATSHEET</p> <p>28. The boat sheet was constantly compared with the smooth sheet with reference to notes, position of sounding lines and supplemental information.</p> <p>Remarks Required: -- None</p>		
<p>19. Sounding line crossings were satisfactory except as follows:</p> <p>Remarks Required: -- Discuss adjustments.</p>			<p>29. Heights of rocks awash were correctly reduced and compared with topographic information.</p> <p>Remarks Required: -- Note excessive conflicts with topographic information.</p>		
<p>20. The spacing of soundings as recorded in the records was closely followed;</p> <p>Remarks Required: -- None</p>			<p>Part X - GENERAL</p> <p>30. All information on the sheet is shown in accordance with figures 82 and 83 in the Hydrographic Manual (Pub. 20-2).</p> <p>Remarks Required: -- None</p>		
<p>21. The scanning, reduction, spacing, plotting of questionable soundings have been verified.</p> <p>Remarks Required: -- None</p>			<p>31. Unnecessary pencil notes have been removed from the sheet.</p> <p>Remarks Required: -- None</p>		
<p>22. The smooth plotting of soundings was satisfactory except as follows:</p> <p>Remarks Required: -- Refer to legibility, errors in spacing, and errors in numbers - but not to errors in scanning.</p>			<p>32. Degree, minute values and symbols have been checked; also electronic distance arcs have been properly identified and checked on the smooth sheet.</p> <p>Remarks Required: -- None</p>		
<p>Part VII - CURVES</p> <p>23. The depth curves have been inspected before inking.</p> <p>Remarks Required: -- By whom was the penciled curves inspected.</p>			<p>33. The bottom characteristics are adequately shown.</p> <p>Remarks Required: -- None</p>		
<p>24. The low-water line and delineation of shoal areas have been properly shown in accordance with the following:</p> <ul style="list-style-type: none"> 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 <p>Remarks Required: -- None</p>			<p>Part XI - NOTES TO THE REVIEWER</p> <p>34. Unresolved discrepancies and questionable soundings.</p>		
<p>25. Depth curves were satisfactory except as follows:</p> <p>(This statement should not refer to the manner in which the curves were drawn).</p> <p>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.</p>			<p>35. Notation of discrepancies with photogrammetric survey inserted in report of unreviewed photogrammetric survey or on copy.</p>		
<p>Verified by _____</p>			<p>36. Supplemental information.</p>	<p>Date _____</p>	

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-8803

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	12-8-66	Charles F. Dupin	Full Part Before After Verification Review Inspection Signed Via Drawing No.
18687A (661-5C)	12-12-79	Raymond B. Nois RAN	Full Part Before After Verification Review Inspection Signed Via Drawing No. 8A Exam; Considered adequately aged
			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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