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Form 504

U. S. DEPARTMENT OF COMMERCE

COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. HFP 12-4-63 Office No. H-8775

LOCALITY

State NEVADA-ARIZONA

General locality BOULDER BASIN

Locality LAKE MEAD, NEVADA-ARIZONA

19 63-64

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

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DATE

USCOMM-DC 5087

8775

FORM C&GS-537
(8-15-59)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

REGISTER NO.

H-8775

HYDROGRAPHIC TITLE SHEET

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.

HFP 12-4-63

State NEVADA-ARIZONA

General locality BOULDER BASIN

Locality LAKE MEAD, NEVADA-ARIZONA

Scale 1:12,000 Date of survey 26 Sept 1963-14 Oct 1964

2100 B-pt S2-219

Instructions dated 10 May 1963 Project No. OPR-443

Vessel LAUNCH CS 183 and LAUNCH CS 1177

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

Surveyed by G.F.TREFETHEN and R.H.ALLBRITTON,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

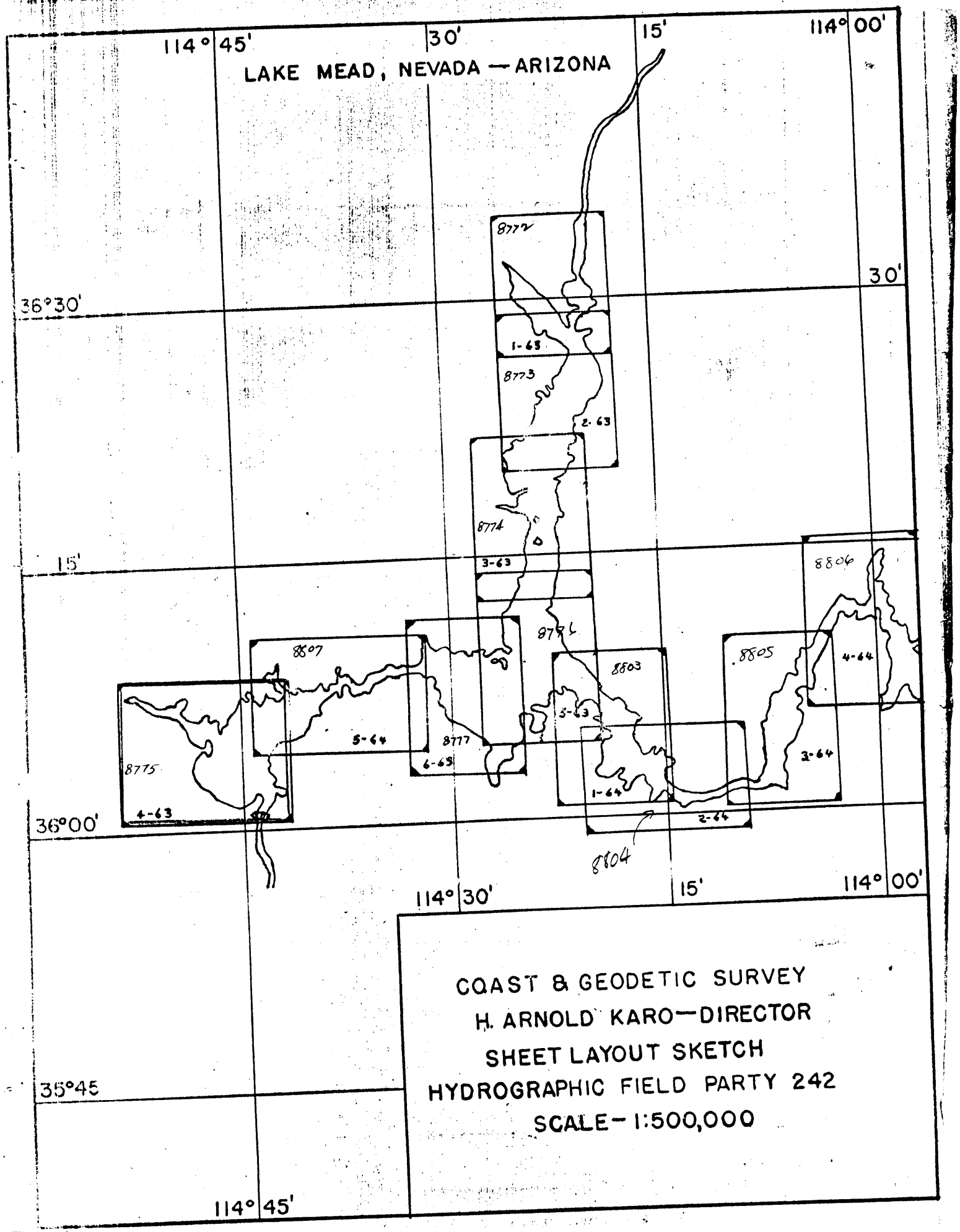
Soundings penciled by

Soundings in ~~fathoms~~ feet at ~~MLW~~ ~~MLLW~~ Elevation above 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.

USCOMM-DC 8272-P62



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-8775
(Field No. H.E.P. 12-4-63)

SCALE: 1:12,000 HFP 242

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

A. PROJECT

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

B. AREA SURVEYED

The geographic limits of this sheet are from Lat. 36°01'N to Lat. 36°10'N and from Long. 114°42'W to Long. 114°50'W. This sheet covers Boulder Basin and Black Canyon, Lake Mead, Nevada-Arizona. The geographic limits of the inset included on this sheet are from Lat. 36°06'N to Lat. 36°08'N and from Long. 114°49'W to Long. 114°53'W. The area covered by this inset is Las Vegas Wash, Nevada.

This survey makes junction with contemporary survey H-8807 (HFP 12-5-64) on the East. Scale 1:12,000.

This survey also makes junction with prior Navy sheet No.2 on the East. Scale 1:12,000 dated 1948.

The survey area was covered by prior Navy sheet No.1. Scale 1:12,000 dated 1948.

Hydrography began on 26 Sept. 1963 and was completed on 14 Oct. 1964.

C.SOUNDING VESSELS

The vessels used for this survey 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	549	200KC
Number	265	200KC
Number	263	20KC

On Launch CS 183 the following DE 723 fathometers were used.

Number	549	200KC
		20KC

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

Daily bar checks were taken to determine the corrections to be applied for the 200KC unit, and Bathythermographic observations were made to determine velocity corrections beyond the range of the bar checks. For tabulation of corrections and fathometer report see Appendix C.

E.SMOOTH SHEET

Smooth sheet projections will be furnished on request from the Washington office. The smooth sheet is to be accomplished by a processing office.

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, with no available fixes, sounding 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.

G.SHORELINE

The shoreline was transferred from a film positive of Navy sheet No.1 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 survey H-8807 (HFP 12-5-64) are in agreement and contours can adequately be drawn at the junctions.

J.COMPARISION WITH PRIOR SURVEYS

Comparision with Navy sheet No.1 dated 1948,scale 1:12,000.

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

K.COMPARISION WITH CHART

A comparision was made with chart No. C&GS 5457A 2nd. edition October 17,1955 Revised October 16,1961 scale 1:48,000.

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

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

1.ROCK

Charted pos.	Lat.	36°07.05'
	Long.	114°43.77'
Charted elev.		1175 ?
New elev.		1119✓
Located on		7 h-day CS 183

It is recommended that the new elevation be charted. Appd 9-16-66

2.ROCK

Charted pos.	Lat.	36°06.98'
	Long.	114°43.75'
Charted elev.		1175 ?
New elev.		1139✓
Located on		8 h-day CS 183

It is recommended that the new elevation be charted. Appd

K.COMPARISION WITH CHART(cont.)

3.ROCK

Charted pos.	Lat.	36°06.98'
	Long.	114°43.65'
Charted elev.		1100
New elev.		1091✓
Located on		13 h-day CS 183

This rock was investigated by running close space sounding lines over the area. The least depth recorder by the fathometer was 1091. No D.P. was taken on this position. It is recommended that the new elevation be charted. Appd

4.ROCK

Charted pos.	Lat.	36°06.81'
	Long.	114°43.99'
Charted elev.		1187
New elev.		1184✓
Located on		3 h-day CS 183

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

5.ROCK

Charted pos.	Lat.	36°07.61'
	Long.	114°44.36'
Charted elev.		1161
New elev.		1155✓
Located on		50 g-day CS 183

It is recommended that the new elevation be charted. Also signal OID Appd

6.ROCK

Charted pos.	Lat.	36°07.80'
	Long.	114°44.56'
Charted elev.		1150
New elev.		1138✓
Located on		52-53 u-day sounding line CS 1177

K.COMPARISION WITH CHART(cont.)

6.(cont.)

It is recommended that the new elevation be charted. Appd

7.ROCK

Charted pos.	Lat.	36°07.51'
	Long.	114°44.64'
Charted elev.		1120
New elev.		1117✓
Located on		52 g-day CS 183 Appd

It is recommended that the new elevation be charted.

8.ROCK

Charted pos.	Lat.	36°07.47'
	Long.	114°44.62'
Charted elev.		1120
New elev.		1116✓
Located on		51 g-day CS 183 Appd

It is recommended that the new elevation be charted.

9.ROCK

Charted pos.	Lat.	36°06.80'
	Long.	114°44.96'
Charted elev.		1117
New elev.		1099✓
Located on		74-h-day CS 183

The area was investigated on h-day by running close spaced sounding lines over the area at a lake level of 1109. The least depth recorded on the fathometer was 1099. It is recommended that the charted elevation be deleted. Shoals IRH

K.COMPARISION WITH CHART(cont.)

10.ROCK

Charted pos.	Lat.	36°06.48'
	Long.	114°44.95'
Charted elev.		1118
New elev.		1126✓
Located on		46 g-day CS 183

It is recommended that the new elevation be charted. Appd

11.ROCK(sub.)

Charted pos.	Lat.	36°06.93'
	Long.	114°44.81'
Charted elev.		1095
New elev.		1075✓
Located on		52-60 H CS 183

The area was investigated by running close spaced sounding lines over the area. The least depth recorded on the fathometer was 1075. It is recommended that the charted elevation be deleted. A lead line was not obtained on the new elevation of 1075. Appd (Chart as 25' sndg)

12.ROCK

Charted pos.	Lat.	36°06.79'
	Long:	114°44.60'
Charted elev.		1093
New elev.		1075✓
Located on		40-51 h CS 183

The area was investigated by running close spaced sounding lines over the area. The least depth recorded on the fathometer was 1078. It is recommended that the charted elevationbe deleted. A lead line was not obtained on the new elevation of 1078. Appd (Chart as 12' sndg)

K.COMPARISION WITH CHART(cont.)

13.ROCK

Charted pos.	Lat.	36°06.60'
	Long.	114°45.30'
Charted elev.		1112

The area was investigated from 85-95 h-day CS 183 at a lake level of 1109. The least depth recorded on the fathometer was 1077. It is recommended that the charted elevation be deleted. Appd 28' sndg

14.ROCK

Charted pos.	Lat.	36°06.40'
	Long.	114°45.63'
Charted elev.		1125

The area was investigated by running close spaced lines from 31-45 g-day CS 183. The least depth recorded on the fathometer was 1090. The lake level was 1109. It is recommended that the charted elevation be delated. Appd 10' sndg

15.ROCK

Charted pos.	Lat.	36°06.37'
	Long.	114°45.80'
Charted elev.		1112

The area was investigated from 16-28 g-day CS 183. By running close spaced lines over the area the least depth recorded on the fathometer was 1085. The lake level was 1109. It is recommended that the charted elevation be deleted. Addc 5' sndg from H-8775

16.ROCK

Charted pos.	Lat.	36°06.35'
	Long.	114°46.09'
Charted elev.		1145
New elev.		1135
Located on		42 F-day CS 183

Appd

It is recommended that the new elevation be charted.

K.COMPARISION WITH CHART(cont.)

17.ROCK

Charted pos.	Lat.	36°06.27'
	Long.	114°46.06'
Charted elev.		1145
New elev.		1128✓
Located on		41 f-day CS 183

It is recommended that the new elevation be charted. Appd

18.ROCK

Charted pos.	Lat.	36°06.17'
	Long.	114°45.96'
Charted elev.		1126
New elev.		1114✓
Located on		43 f-day CS 183

It is recommended that the new elevation be charted. Appd

19.ROCK

Charted pos.	Lat.	36°06.07'
	Long.	114°45.88'
Charted elev.		1133✓

The area was investigated from 2-14 g-day CS 183 by running close spaced sounding lines over the area. The lake level was 1110. It is recommended that the charted elevation be deleted. Replaced with 87 sndg

20.ROCK

Charted pos.	Lat.	36°06.10'
	Long.	114°46.10'
Charted elev.		1131
New elev.		1141✓
Located on		33 f-day CS 183

It is recommended that the new elevation be charted. Appd

K.COMPARISION WITH CHART(cont.)

21.ROCK

Charted pos.	Lat.	36°06.05'
	Long.	114°46.15'
Charted elev.		1100
New elev.		1107/
Located on		34 f-day CS 183

It is recommended that the new elevation be charted. Appd

22.ROCK

Charted pos.	Lat.	36°06.11'
	Long.	114°46.20'
Charted elev.		1108
New elev.		1110/
Located on		36 f-day CS 183

It is recommended that the new elevation be charted. Appd

23.ROCK

Charted pos.	Lat.	36°06.09'
	Long.	114°46.36'
Charted elev.		1152
New elev.		1148/
Located on		37 f-day CS 183

It is recommended that the new elevation be charted. Appd

24.ROCK

Charted pos.	Lat.	36°05.98'
	Long.	114°46.07'
Charted elev.		1150
New elev.		1148/
Located on		39 f-day CS 183

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

K.COMPARISION WITH CHART(cont.)

25.ROCK

Charted pos.	Lat.	36°05.89'
	Long.	114°46.02'
Charted elev.		1105
New elev.		1100✓
Located on		1 g-day CS 183

It is recommended that the new elevation be charted. Soundings (Q)*

26.ROCK

Charted pos.	Lat.	36°05.84'
	Long.	114°45.72'
Charted elev.		1119✓

The area was investigated from 57-68 ha-day CS 1177 at a lake level of 1105. No evidence of its existence was found. It is recommended that the charted elevation be deleted. Deleted

27.ROCK

Charted pos.	Lat.	36°05.73'
	Long.	114°46.07'
Charted elev.		1113
New elev.		1119✓
Located on		14 d-day CS 183

It is recommended that the new elevation be charted. Appd

28.ROCK

Charted pos.	Lat.	36°05.55'
	Long.	114°46.17'
Charted elev.		1105
New elev.		1111✓
Located on		13 d-day CS 183

It is recommended that the new elevation be charted. Appd

K.COMPARISION WITH CHART(cont.)

29.SUB ROCK

Charted pos.	Lat.	36°05.53'
	Long.	114°46.69'
Charted elev.		1092✓

The area was investigated on f-day CS 183 by running close spaced lines over the area. The least depth recorded on the fathometer was 1088 on a sounding line from 16-18 F-day. No leadd line was obtained on the depths of 1088. It is recommended that the charted elevation be retained. Retained

30.ROCK

Charted pos.	Lat.	36°05.83'
	Long.	114°46.66'
Charted elev.		1125
New elevation		1125✓
Located on		15-d-day CS 183

It is recommended that the charted elevation be retained. Retained

31.ROCK

Charted pos.	Lat.	36°06.78'
	Long.	114°46.59'
Charted elev.		1137
New elev.		1134✓
Located on		15 b-day CS 183

It is recommended that the new elevation be charted. Appd

32.ROCK

Charted pos.	Lat.	36°07.19'
	Long.	114°47.93'
Charted elev.		1100
New elev.		1118✓
Located on		1 p-day CS 183

It is recommended that the new elevation be charted. Appd

K.COMPARISION WITH CHART(cont.)

33.ROCK

Charted pos.	Lat.	36°06.88'
	Long.	114°47.73'
Charted elev.		1124
New elev.		1115✓
Located on		15 a-day CS 183

It is recommended that the new elevation be charted. Appd

34.ROCK

Charted pos.	Lat.	36°06.83'
	Long.	114°47.78'
Charted elev.		1100
New elev.		1112✓
Located on		16 a-day CS 183

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

35.ROCK

Charted pos.	Lat.	36°06.87'
	Long.	114°48.22'
Charted elev.		1100
New elev.		1114✓
Located on		10 a-day CS 183

It is recommended that the new elevation be charted. Appd

36.ROCK

Charted pos.	Lat.	36°06.78'
	Long.	114°48.19'
Charted elev.		1125
New elev.		1120✓
Located on		8 a-day CS 183

It is recommended that the new elevation be charted. Appd

K.COMPARISION WITH CHART(cont.)

37.ROCK

Charted pos.	Lat.	36°06.29'
	Long.	114°48.33'
Charted elev.		1108
New elev.		1103✓
Located on		sounding line 3 e-15 e-day CS 183

This rock was investigated by running close spaced sounding lines over the area. The least depth recorded on the fathometer was 1103. It is recommended that the new elevation be charted. Appd 4-19-46

38.ROCK

Charted pos.	Lat.	36°06.34'
	Long.	114°48.42'
Charted elev.		1106
New elev.		1100✓
Located on		sounding line 20 e-32 e-day CS 183

It is recommended that the new elevation be charted. Appd

39.ROCK

Charted pos.	Lat.	36°06.42'
	Long.	114°48.55'
Charted elev.		1125
New elev.		1121✓
Located on		31 ga-day CS 1177

It is recommended that the new elevation be charted. Appd

K.COMPARISION WITH CHART(cont.)

40.ROCK

Charted pos.	Lat.	36°06.45'
	Long.	114°48.63'
Charted elev.		1125
New elev.		1121✓
Located on		30 ga-day CS 1177

It is recommended that the new elevation be charted. Appd

41.ROCK

Charted pos.	Lat.	36°06.56'
	Long.	114°48.58'
Charted elev.		1153
New elev.		1137✓
Located on		32 ga-day CS 1177

It is recommended that the new elevation be charted. Appd

42.ROCK

Charted pos.	Lat.	36°06.75'
	Long.	114°48.99'
Charted elev.		1100
New elev.		1117✓
Located on		sounding line 132-133 z-day CS 1177

It is recommended that the new elevation be charted. Appd

43.ROCK

Charted pos.	Lat.	36°06.77'
	Long.	114°48.83'
Charted elev.		1123
New elev.		1121✓
Located on		12 ga-day CS 1177

It is recommended that the new elevation be charted. Appd

K.COMPARISION WITH CHART(cont.)

44.ROCK

Charted pos.	Lat.	36°06.90'
	Long.	114°48.88'
Charted elev.		1121
New elev.		1116✓
Located on		11 ga-day CS 1177

It is recommended that the new elevation be charted. *Appd*

45.ROCK

Charted pos.	Lat.	36°06.85'
	Long.	114°49.21'
Charted elev.		1150
New elev.		1147✓
Located on		14 ea-day CS 1177

It is recommended that the new elevation be charted. This is also the position of signal SAL. *Appd*

46.ROCK

Charted pos.	Lat.	36°06.99'
	Long.	114°49.54'
Charted elev.		1148
New elev.		1147✓
Located on		8 ea-day CS 1177

It is recommended that the charted elevation be retained. *Retained*

47.ROCK

Charted pos.	Lat.	36°07.21'
	Long.	114°49.25'
Charted elev.		1151
New elev.		1150✓
Located on		60 fa-day CS 1177

It is recommended that the charted elevation be retained. *Retained*

K.COMPARISION WITH CHART(cont.)

48.ROCK

Charted pos.	Lat.	36°07.43'
	Long.	114°49.34'
Charted elev.		1142
New elev.		1124 ✓
Located on		58 fa-day CS 1177

It is recommended that the new elevation be charted. Appd

49.ROCK

Charted pos.	Lat.	36°07.43'
	Long.	114°49.28'
Charted elev.		1142
New elev.		1143 ✓
Located on		59 fa-day CS 1177

It is recommended that the new elevation be charted. Appd

50.ROCK

Charted pos.	Lat.	36°07.17'
	Long.	114°50.28'
Charted elev.		1112
New elev.		1108 ✓
Located on		1 h-day CS 183

It is recommended that the new elevation be charted. Appd

51.ROCK

Charted pos.	Lat.	36°07.26'
	Long.	114°50.16'
Charted elev.		1155
New elev.		1146 ✓
Located on		17 ea-day CS 1177

It is recommended that the new elevation be charted. Appd

K.COMPARISION WITH CHART(cont.)

52.ROCK

Charted pos.	Lat.	36°07.21'
	Long.	114°50.56'
Charted elev.		1115✓
New elev.		1114
Located on		15 ea-day CS 1177

It is recommended that the ~~new~~ CHARTED elevation be retained. *Retained*

53.ROCK

Charted pos.	Lat.	36°07.18'
	Long.	114°50.73'
Charted elev.		1143 ✓
New elev.		1143✓
Located on		13 ea-day CS 1177

It is recommended that the charted elevation be retained. *Retained*

54.ROCK

Charted pos.	Lat.	36°07.17'
	Long.	114°50.89'
Charted elev.		1162
New elev.		1153✓
Located on		11ea-day CS 1177

It is recommended that the new elevation be charted. *Appd*

55.ROCK

Charted pos.	Lat.	36°07.37'
	Long.	114°51.05'
Charted elev.		1123
New elev.		1129✓
Located on		9 ea-day CS 1177

It is recommended that the new elevation be charted. *Appd*

K.COMPARISION WITH CHART(cont.)

56.ROCK

Charted pos.	Lat.	36°06.98'
	Long.	114°51.11'
Charted elev.		1161 ← Retained
New elev.		1122✓
Located on		3 ea-day CS 1177 T-12563 shows 1150' curve at this position

It is recommended that the new elevation be charted.

57.ROCK

Charted pos.	Lat.	36°06.97'
	Long.	114°50.35'
Charted elev.		1135 ?
New elev.		1157✓
Located on		1 ea-day CS 1177

It is recommended that the new elevation be charted. Appd

58.ROCK

Charted pos.	Lat.	36°06.91'
	Long.	114°50.09'
Charted elev.		1123
New elev.		1133✓
Located on		26 ea-day CS 1177

It is recommended that the new elevation be charted. Appd

59.ROCK

Charted pos,	Lat.	36°06.74'
	Long.	114°49.94'
Charted elev.		1142
New elev.		1143✓
Located on		28 ea-day CS 183

It is recommended that the new elevation be charted. Appd

K.COMPARISION WITH CHART(cont.)

60.ROCK

Charted pos.	Lat.	36°06.40'
	Long.	114°49.19'
Charted elev.		1142
New elev.		1120 /
Located on		43 ga-day CS 1177

It is recommended that the new elevation be charted. Appd

61.ROCK

Charted pos.	Lat.	36°06.10'
	Long.	114°49.05'
Charted elev.		1124
New elev.		1153 /
Located on		40 ga-day CS 1177

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

62.ROCK

Charted pos.	Lat.	36°06.12'
	Long.	114°48.93'
Charted elev.		1130 /
New elev.		1119 /
Located on		36 ga-day CS 1177

It is recommended that the new elevation be charted. Appd

63.ROCK

Charted pos.	Lat.	36°05.83'
	Long.	114°48.67'
Charted elev.		1100 /
New elev.		1112 /
Located on		5 c-day CS 183

It is recommended that the new elevation be charted. Appd

K.COMPARISION WITH CHART(cont.)

64.ROCK

Charted pos.	Lat.	36°05.80'
	Long.	114°48.75'
Charted elev.		1100
New elev.		1116✓
Located on		4 c-day CS 183

It is recommended that the new elevation be charted. Appd

65.ROCK

Charted pos.	Lat.	36°05.68'
	Long.	114°48.73'
Charted elev.		1143✓
New elev.		1139✓
Located on		8 c-day CS 183

It is recommended that the new elevation be charted. Appd

66.ROCK

Charted pos.	Lat.	36°05.70'
	Long.	114°48.67'
Charted elev.		1143
New elev.		1137✓
Located on		7 C-day CS 183

It is recommended that the new elevation be charted. Appd

67.ROCK

Charted pos.	Lat.	36°05.63'
	Long.	114°48.58'
Charted elev.		1125
New elev.		1127✓
Located on		11 c-day CS 183

It is recommended that the new elevation be charted. Appd

K.COMPARISION WITH CHART(cont.)

68.ROCK

Charted pos.	Lat.	36°05.49'
	Long.	114°48.64'
Charted elev.		1100
New elev.		1118✓
Located on		13 c-day CS 183

It is recommended that the new elevation be charted. Appd 9-20-66 ↓

69.ROCK

Charted pos.	Lat.	36°05.48'
	Long.	114°48.69'
Charted elev.		1100
New elev.		1110✓
Located on		14 c-day CS 183

It is recommended that the new elevation be charted. Appd

70.ROCK

Charted pos.	Lat.	36°05.49'
	Long.	114°48.49'
Charted elev.		1093
New elev.		1100
Located on		sounding line 55-56 e-day CS 183

It is recommended that the new elevation be charted. Appd

71.ROCK

Charted pos.	Lat.	36°05.13'
	Long.	114°47.57'
Charted elev.		1133
New elev.		1139✓
Located on		19 c-day CS 183

It is recommended that the new elevation be charted. Appd 9-20-66

K.COMPARISION WITH CHART(cont.)

72.ROCK

Charted pos.	Lat.	36°05,08'
	Long.	114°47.09'
Charted elev.		1125✓

The area was investigated from 75-85 e-day CS 183 by running close spaced lines over the area. The lake level at the time was 1110. It is recommended that the charted elevation be deleted. Deleted

73.ROCK

Charted pos.	Lat.	36°05.05'
	Long.	114°48.96/8'
Charted elev.		1129
New elev.		1134
Located on		24 c-day CS 183

It is recommended that the new elevation be charted. Appd.

74.ROCK

Charted pos.	Lat.	36°04.93'
	Long.	114°46.80'
Charted elev.		1131✓

The area was investigated from 15-24 e-day CS 183 by running close spaced sounding lines over the area. The lake level at the time was 1110. It is recommended that the charted elevation be deleted. Deleted

K.COMPARISION WITH CHART(cont.)

75.ROCK

Charted pos.	Lat.	36°04.92'
	Long.	114°47.20'
Charted elev.		1145
New elev.		1140✓
Located on		3 d-day CS 183

It is recommended that the new elevation be charted. Appd

76.ROCK

Charted pos.	Lat.	36°04.97'
	Long.	114°47.44'
Charted elev.		1120
New elev.		1116✓
Located on		20 c-day CS 183

It is recommended that the new elevation be charted. Appd

77.ROCK

Charted pos.	Lat.	36°04.97'
	Long.	114°48.10'
Charted elev.		1115
New elev.		1107✓
Located on		79 e-day CS 183

It is recommended that the new elevation be charted. Appd

78.ROCK

Charted pos.	Lat.	36°04.00'
	Long.	114°47.49'
Charted elev.		1112
New elev.		1109✓
Located on		68 m-day CS 183

It is recommended that the new elevation be charted. Appd

K.COMPARISION WITH CHART(cont.)

79.ROCK

Charted pos.	Lat.	36°02.78'
	Long.	114°46.02'
Charted elev.		1145
New elev.		1148✓
Located on		73 s-day CS 1177

It is recommended that the new elevation be charted. Appd

80.ROCK

Charted pos.	Lat.	36°02.73'
	Long.	114°46.11'
Charted elev.		1126✓

The area was investigated from 69-77 m-day CS 183 by running sounding lines over the area. The lake level at the time was 1106. It is recommended that the charted elevation be deleted. Deleted

81.ROCK

Charted pos.	Lat.	36°02.64'
	Long.	114°45.95'
Charted elev.		1122
New elev.		1123✓
Located on		25 k-day CS 183

It is recommended that the new elevation be charted. Appd

82.ROCK

Charted pos.	Lat.	36°02.60'
	Long.	114°45.90'
Charted elev.		1121
New elev.		1114✓
Located on		27 k-day CS 183

It is recommended that the new elevation be charted. Appd

K.COMPARISION WITH CHART(cont.)

83.ROCK

Charted pos.	Lat.	36°02.61'
	Long.	114°45.79'
Charted elev.		1125
New elev.		1120 ✓
Located on		26 k-day CS 183

It is recommended that the new elevation be charted. Appd

84.ROCK

Charted pos.	Lat.	36°02.60'
	Long.	114°45.71'
Charted elev.		1110 ✓

The area was investigated from 81-89 m-day CS 183 by running sounding lines over the area. The lake level at the time was 1106. It is recommended that the charted elevation be deleted. Added 13' soft in this pos

85.TANK

Charted pos.	Lat.	36°02.46'
	Long.	114°46.32'
Charted elev.		?
New elev.		1133 ← Appd
Located on		3 1-day CS 183

It is recommended that the new elevation for the tank be charted.

86.ROCK

Charted pos.	Lat.	36°02.23'
	Long.	114°45.97'
Charted elev.		1130
New elev.		1131 ✓
Located on		32 k-day CS 183

It is recommended that the new elevation be charted. Appd

K.COMPARISION WITH CHART(cont.)

87.ROCK

Charted pos.	Lat.	36°03.30'
	Long.	114°43.80'
Charted elev.		1133 ✓
Located on		11 j-day CS 183

The recorder failed to record the new elevation. It is recommended that the charted elevation be retained. Retained

88.ROCK

Charted pos.	Lat.	36°03.90'
	Long.	114°43.55'
Charted elev.		1152
New elev.		1146 ✓
Located on		8 j-day CS 183

It is recommended that the new elevation be charted. Appd

89.ROCK

Charted pos.	Lat.	36°03.23'
	Long.	114°44.79'
Charted elev.		1108
New elev.		1102 ✓
Located on		1 k-day CS 183

It is recommended that the new elevation be charted. Appd 9-20-66

Rocks,that were not investigated:

Rocks,reefs, or ledges above 1150 feet above MSL were not investigated, except that all National Park Service Reef Markers were located.

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 1140 foot contour. This survey is not adequate for charting, above the 1150 foot contour.

M. AIDS TO NAVIGATION

There is one fixed lighted aid to navigation in the area surveyed. This aid was established by the National Park Service at Lat. 36°02.49' Long. 114°46.27'. This light was located on 5 1-day CS 183 and that position is the only position this party has. Appd 9-20-66

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.

All aids and reef markers are maintained by the National Park Service.

The standard National Park Service reef marker is a hard, black, rubber cylinder which is between 4.0 feet and 4.5 feet in lenght 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 struck by a boat, it would bend and probably not inflict any serious damage.

N. STATISTICS

Launch	No. of Pos.	NM of sounding lines.
CS 1177	4023	302.8
CS 183	645	49.0
	4668	351.8

Total area of survey 27.0 sq. Nautical Miles
Total number of bottom samples 16

Tide gage at Boulder Dam provided lake level control for this sheet. 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 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 1149 to a lake level of 1092.

A contour sheet (HFP 12-4-63) has been made of this sheet. Contours were drawn at 10 foot intervels. 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 (above MSL)	COLOR
1200	black
1150	red
1100	orange
1050	green
1000	red
950	blue
900	red
850	orange
800	blue
750	violet

Respectfully submitted,

Guy F. Trefethen

Guy F. Trefethen
Surveying Tech.

APPENDIX B

The basic control on H-8775 (HFP 12-4-63) was USGS third-order triangulation stations. Additional topographic control was located by T-2 except in Black Canyon where Tellurometers were used. Hydrographic signals were cut in by sextant.

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

List of Signals

Hydrographic Survey H-8775 (HFP 12-4-63)

Triangulation stations

Cut	A-2A, 1948	RAY	N-4 , 1948
DIE	N-6 , 1947	RED	A-2B, 1948
FAT	N-5 , 1947	ROB	A-1B, 1947
HEM	, 1935	TOP	N-8A, 1948
LAG	N-9 , 1947	USE	A-1 , 1947
LED	N-5A, 1947	ZAG	A-2 , 1947
NAT	N-8D,1948	ZIG	N-3 , 1947
NUN	N-8B, 1947	ZOO	N-2 , 1947
OIL	N-5B, 1947		

The source of this list of (topo & hydro) signals is Master Control Sheet (HFP 12-4-63) except as noted.

ACK	FED	KED	OFF
ACT	FEZ	KIT	~~old~~ OLD
AGE	FIT	LAD	ORB
AHA	FOE	LET	OWN
AIM	FOP	LIZ	PAL
APT	GAL	LOG	PAR
ARM	GUY	LUX	PIE
BOA	HAG	MAG	PIN (12-3-64 INSET)
BUM	HAT	MAN	PIX
CAR	HOE	MET	POT
CAT	HUG	NAV	PRO
COM	IDA	NOW	PUT
COW	IRK	NUB	ROD
DAY	ITS	NUT	SAD
DON	JOE	OAK	SAS
EBB	JUT	ODD	SHE

Topographic Signals (cont.)

SOL	TUB	
STY	VAL	
SUE	WAD	
SUB	WAR	
TAG	WED	
TAN	WHO	
TAP	YES	(12-4-63 inset)
TOM	YET	
TRY	ZON	

Hydrographic Signals

BED		JAP	
BIB		JIM	
BIG		LAX	
COL	(12-4-63 inset)	NIG	
CUR		PIT	
DAW		REE	(12-4-63 inset)
DIX		RIO	
DOT		RUB	
EAT		SAL	
EST	(12-4-63 inset)	SIN	
FRY		WEE	
HID		WOO	

FATHOMETER CORRECTIONS
HYDROGRAPHIC SURVEY H-8775 - (12-4-63)
Lake Mead, Nevada - Arizona

Vessel: Launch CS-183
Day Letters: a,b,e,f,g,h,j,k,l
Fath. No: DE-723 - #549

A SCALE

6.0 to 12.0	+0.4
12.0 to 18.0	+0.6
18.0 to 22.5	+0.8
22.5 to 30.0	+1.0
30.0 to 34.0	+1.2
34.0 to 37.5	+1.4
37.5 to 40.5	+1.6
40.5 to 45.0	+1.8
45.0 to 48.0	+2.0

B SCALE

48.0 to 51.0	+0.8
51.0 to 60.0	+1.0
60.0 to 66.0	+1.2
66.0 to 74.0	+1.4
74.0 to 78.0	+1.6
78.0 to 84.0	+1.8
84.0 to 90.0	+2.0

C SCALE	+2.0
D SCALE	+1.2
E SCALE	+1.1
F SCALE	+0.9
G SCALE	+1.4
H SCALE	+0.5
I SCALE	+0.9
J SCALE	+0.1

Vessel: Launch CS-183
Day Letters: m
Fath. No: DE-723 - #549

A SCALE

6.0 to 10.0	+0.6
10.0 to 13.5	+0.8
13.5 to 16.0	+1.0
16.0 to 21.5	+1.2
21.5 to 27.5	+1.4
27.5 to 33.5	+1.6
33.5 to 39.5	+1.8
39.5 to 44.0	+2.0
44.0 to 47.0	+2.2
47.0 to 48.0	+2.4

B SCALE

48.0 to 51.0	+1.0
51.0 to 57.0	+1.2
57.0 to 66.0	+1.4
66.0 to 69.5	+1.6
69.5 to 81.5	+1.8
81.5 to 90.0	+2.0

C SCALE	+2.0
D SCALE	+1.2
E SCALE	+1.1
F SCALE	+0.9
G SCALE	+1.7
H SCALE	+0.6
I SCALE	+0.9
J SCALE	+0.1

FATHOMETER CORRECTIONS
HYDROGRAPHIC SURVEY H-8775 - (12-4-63)
Lake Mead, Nevada - Arizona

Vessel: Launch CS-183
Day Letters: n
Fath. No. DE-723 - #544

Fathoms converted to feet-

10.0 to 14.0	0.0
14.1 to 17.0	+0.2
17.1 to 22.0	+0.4
22.1 to 27.0	+0.6
27.1 to 32.0	+0.8
32.1 to 38.0	+1.0
38.1 to 45.0	+1.2
45.1 to 52.0	+1.4
52.1 to 59.0	+1.6
59.1 to 66.0	+1.8
66.1 to 73.0	+2.0
73.1 to 80.0	+2.2
80.1 to 87.0	+2.4
87.1 to 91.0	+2.6
91.1 to 95.0	+2.8
95.1 to 110.0	+3.0
110.1 to 114.5	+2.8
114.6 to 120.0	+2.6
120.1 to 126.0	+2.4
126.1 to 134.0	+2.2
134.1 to 146.0	+2.0
146.1 to 180.0	+1.8

Vessel: Launch CS-183
Day Letters: q
Fath. No: DE-723 - #549

A SCALE

6.0 to 8.0	+1.0
8.1 to 11.0	+1.2
11.1 to 16.0	+1.4
16.1 to 21.5	+1.6
21.6 to 27.5	+1.8
27.6 to 35.0	+2.0
35.1 to 40.5	+2.2
40.6 to 46.5	+2.4
46.6 to 50.0	+2.6

B SCALE

40.0 to 49.0	+1.8
49.1 to 52.0	+2.0
52.1 to 56.5	+2.2
56.6 to 62.0	+2.4
62.1 to 64.5	+2.6
64.6 to 65.5	+2.8
65.6 to 87.5	+3.0
87.6 to 90.0	+3.2

C SCALE	+2.5
D SCALE	+2.7
E SCALE	+2.4
F SCALE	+1.8
G SCALE	+2.4
H SCALE	+2.1
I SCALE	+1.3

FATHOMETER CORRECTIONS
HYDROGRAPHIC SURVEY H-8775 - (12-4-63)
Lake Mead, Nevada - Arizona

Vessel: Launch CS-1177
Day Letters: a,b,c
Fath. No: DE-723 - #549

A & B SCALE

0.0 to 9.0	+0.2
9.0 to 15.0	+0.4
15.0 to 21.0	+0.6
21.0 to 27.0	+0.8
27.0 to 33.0	+1.0
33.0 to 39.0	+1.2
39.0 to 45.0	+1.4
45.0 to 50.0	+1.6
50.0 to 59.0	+1.8
59.0 to 68.0	+2.0
68.0 to 78.0	+2.2
78.0 to 89.0	+2.4

B SCALE

40.0 to 45.9	+1.4
46.0 to 63.5	+1.6
63.6 to end	+1.8

C SCALE	+2.3
D SCALE	+2.8
E SCALE	+2.9
F SCALE	+2.9
G SCALE	+0.9
H SCALE	+0.6
I SCALE	+1.3
J SCALE	+1.3
K SCALE	+1.4

C SCALE	+2.8
D SCALE	+3.2
E SCALE	+3.3
F SCALE	+3.3
G SCALE	+1.0
H SCALE	+1.0
I SCALE	+1.8
J SCALE	+1.8
K SCALE	+1.8

Vessel: Launch CS-1177
Day Letters: d,e,f,g,h,j,k,l,m
Fath. No: DE-723 - ~~#219~~ 549 ← ~~Party~~ No.

A SCALE

0.0 to 10.0	0.0
10.1 to 18.0	+0.2
18.1 to 28.2	+0.4
28.3 to 37.0	+0.6
37.1 to 46.0	+0.8

FATHOMETER CORRECTIONS
HYDROGRAPHIC SURVEY H-8775 - (12-4-63)
Lake Mead, Nevada - Arizona

Vessel: Launch CS-1177
Day Letters: n,q,r,s,t,u,v,
w,x,y,z,
Fath. No; DE-723 - #263

A SCALE	
0.0 to 12.0	0.0
12.0 to 24.0	+0.2
24.0 to 32.0	+0.4
32.0 to 41.0	+0.6
41.0 to 50.0	+0.8

B SCALE	
48.0 to 66.0	+1.4
66.0 to 90.0	+1.6

C SCALE	+2.2
D SCALE	+2.7
E SCALE	+2.7
F SCALE	+2.5
G SCALE	+0.7
H SCALE	+0.5
I SCALE	+1.2
J SCALE	+1.2
K SCALE	+1.2

Vessel: Launch CS-1177
Day Letters: p,aa,ba,ca,da
Fath. No: DE-723 - #549

A SCALE	
0.0 to 24.0	0.0
24.0 to 36.0	+0.2
36.0 to 48.0	+0.4
48.0 to 50.0	+0.6

B SCALE	
48.0 to 60.0	+1.0
60.0 to 72.0	+1.2
72.0 to 90.0	+1.4

C SCALE	+1.9
D SCALE	+2.4
E SCALE	+2.4
F SCALE	+2.5
G SCALE	+0.4
H SCALE	+0.2
I SCALE	+0.9
J SCALE	+0.9
K SCALE	+0.9

FATHOMETER CORRECTIONS
HYDROGRAPHIC SURVEY H- 8775 - (12-4-63)
Lake Mead, Nevada - Arizona

Vessel: Launch CS- 1177
Day Letters: fa,ga,ha,ja,ka
Fath. No: DE-723 - #265

A SCALE

6.0 to 18.0	+0.4
18.0 to 22.5	+0.6
22.5 to 27.0	+0.8
27.0 to 36.0	+1.0
36.0 to 48.0	+1.2

B SCALE

48.0 to 51.0	+1.2
51.0 to 69.0	+1.4
69.0 to 90.0	+1.6

C SCALE	+1.2
D SCALE	+0.9
E SCALE	+0.8
F SCALE	+0.2
G SCALE	+0.3
H SCALE	-0.0
I SCALE	-0.7
J SCALE	-1.1

APPENDIX D

Approval sheet to accompany Hydrographic sheet H-8775 (HFP 12-4-63).

Project OPR-443

The records, corrections and all field work and office work ~~was~~ were supervised by:

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

This descriptive report was written by:

G.F.TREFETHEN,SURVEYING TECH.

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

Forwarded,

RICHARD E.ALDERMAN
LCDR.,USC&GS
Officer-in-charge

FORM C&GS-712
(3-9-64)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

TIDE NOTE FOR HYDROGRAPHIC SHEET

March 11, 1968

Nautical Chart Division: R. H. Carstens

Plane of reference approved in
22 volumes of sounding records for

HYDROGRAPHIC SHEET 8775

Locality: Lake Mead, Nevada - Arizona

Chief of Party: P. A. Stark; H. E. McCall (1963-64)

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

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

Hoover Dam

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

Remarks

J. M. Symons
Chief, Tides and Currents Branch

USCOMM-DC 6680-P64

FORM 197
(3-16-55)

GEOGRAPHIC NAMES

Survey No. H-8775

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	
Boulder Islands										1
Burro Point										2
Callville Bay										3
Castle Reef										4
Colorado River										5
Las Vegas Bay										6
Promontory Point										7
Saddle Island										8
Sentinel Island										9
										10
		Names approved								11
		April 7, 1967								12
										13
										14
										15
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										25
										26
										27

FORM C&GS-946
(REV. 11-65)
(PRESC. BY HYDROGRAPHIC MANUAL 20-2, 6-94, 7-13)

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

HYDROGRAPHIC SURVEY STATISTICS

HYDROGRAPHIC SURVEY NO. 8775

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	22					
BOXES						

T-SHEET PRINTS *(List)*

SPECIAL REPORTS *(List)*

1 Cahier - Misc. Data filed with H-8775.

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				

	BEGINNING DATE	ENDING DATE
PRE-VERIFICATION BY		
VERIFICATION BY		
REVIEW BY		

USCOMM-DC 36271-P65

FORM C&GS-946A
(REV. 11-65)
(PRES. BY HYDROGRAPHIC MANUAL, 6-94)

U.S. DEPARTMENT OF COMMERCE
ESSA
COAST AND GEODETIC SURVEY

VERIFIER'S REPORT

HYDROGRAPHIC SURVEY, H- 8775

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
Note: The verifier should first read the Descriptive Report for general information and problems.		
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		
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		
3. All reference to survey sheets mentioned in the Descriptive Report should include registry number and year. Remarks Required: -- None		
Part II - SHORELINE AND SIGNALS		
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		
5. The transfer of contemporary topographic information was carefully examined and reconciled with the hydrography. Remarks Required: -- Discuss remaining differences.		
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		
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.		
Part III - JUNCTIONS		
Note: 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		
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		

Part III - JUNCTIONS (Continued)	CL	R
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.**		
Part IV - VOLUMES		
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		
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		
Part V - PROTRACTING		
13. All positions verified instrumentally were check marked in color in the sounding records, and verifier initialed the processing stamp. Remarks Required: -- None		
14. The protracting and plotting of all unsatisfactory crossings were verified. Remarks Required: -- None		
15. All detached positions locating critical soundings, rocks, buoys, breakers, obstructions, kelp, etc., were verified and the position numbers are legible. Remarks Required: -- None		

Part V - PROTRACTING (Continued)	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.		
17. The protractor has been checked within the last three months. Remarks Required: -- Date of check, type of protractor and number.		
Part VI - SOUNDINGS		
18. All soundings are clear and legible, and critical soundings are a little larger than adjacent soundings. Remarks Required: -- None		
19. Sounding line crossings were satisfactory except as follows: Remarks Required: -- Discuss adjustments.		
20. The spacing of soundings as recorded in the records was closely followed; Remarks Required: -- None		
21. The scanning, reduction, spacing, plotting of questionable soundings have been verified. 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.		
Part VII - CURVES		
23. The depth curves have been inspected **before** inking. Remarks Required: -- By whom was the penciled curves inspected.		
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		
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.		

Part VIII - AIDS TO NAVIGATION	CL	R
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.		
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		
Part IX - BOATSHEET		
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		
29. Heights of rocks awash were correctly reduced and compared with topographic information. Remarks Required: -- Note excessive conflicts with topographic information.		
Part X - GENERAL		
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		
31. Unnecessary pencil notes have been removed from the sheet. Remarks Required: -- None		
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		
33. The bottom characteristics are adequately shown. Remarks Required: -- None		
Part XI - NOTES TO THE REVIEWER		
34. Unresolved discrepancies and questionable soundings.		
35. Notation of discrepancies with photogrammetric survey inserted in report of unreviewed photogrammetric survey or on copy.		
36. Supplemental information.		

Verified by	Date

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

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-8775

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	12-8-66	Charles R. Kupiec	~~Full~~ Part Before ~~After Verification~~ Review Inspection Signed Via
			Drawing No.
			adequately
18687A	12-12-79	Gregory B. Morris	~~Full Part~~ Before ~~After Verification~~ Review Inspection Signed Via
(661-SC)		RH	Drawing No. 8A 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
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