

8804

1135

Diag. Cht. No. 526.

Form 504 U. S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY DESCRIPTIVE REPORT	
Type of Survey	<u>HYDROGRAPHIC</u>
Field No.	<u>HFP 12-2-64</u>
Office No.	<u>H-8804</u>
LOCALITY	
State	<u>NEVADA - ARIZONA</u>
General locality	<u>VIRGIN CANYON</u>
Locality	<u>LAKE MEAD, NEVADA - ARIZONA</u>
<u>19 64</u>	
CHIEF OF PARTY P.A.STARK, CDR. & H.E.McCALL, LT.	
LIBRARY & ARCHIVES	
DATE	_____

USCOMM-DC 5087

8804

H-8804

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 12-2-64

State NEVADA - ARIZONA

General locality VIRGIN CANYON

Locality LAKE MEAD, NEVADA - ARIZONA

Scale 1:12,000 Date of survey 13 Jan. 64 to 18 Sept. 64
2100 B-pt S2-219

Instructions dated 10 May 1963 Project No. OPR 443

Vessel Launch CS 183 - 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 ~~1000~~ feet at ~~LOW~~ ~~LOW~~ ELEVATION ABOVE M.S.L.

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.

114° 45'

30'

15'

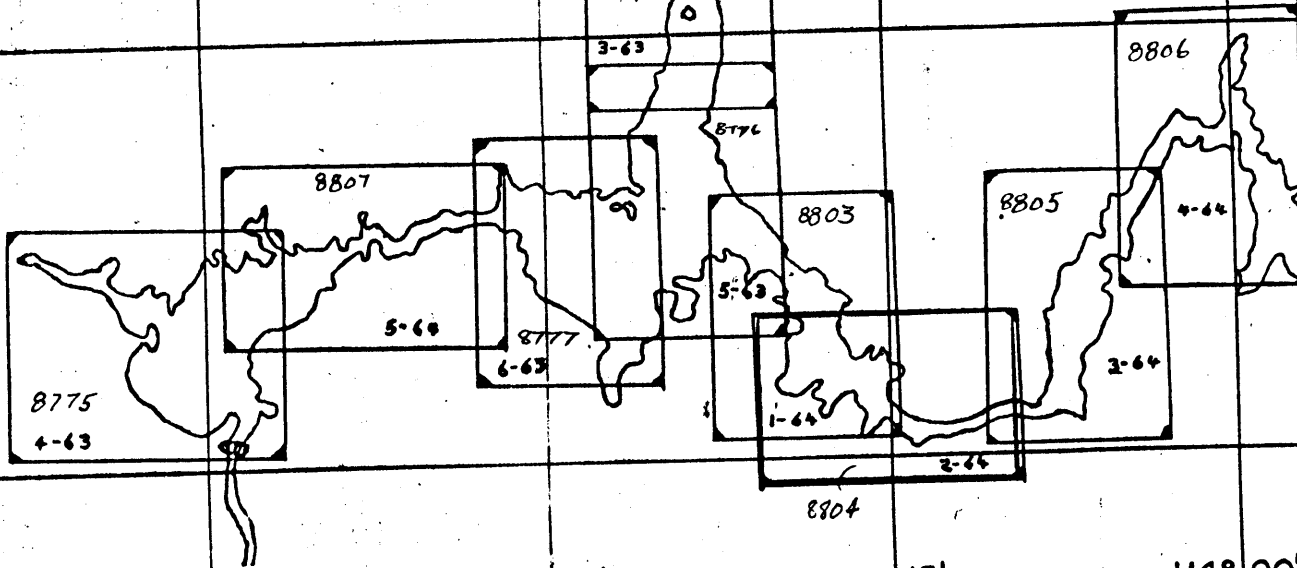
114° 00'

LAKE MEAD, NEVADA — ARIZONA

36° 30'

30'

15'



36° 00'

35° 45'

114° 30'

15'

114° 00'

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

114° 45'

DESCRIPTIVE REPORT

TO ACCOMPANY HYDROGRAPHIC SURVEY H-8804
(Field No. HFP-242 12-2-64)
Project OPR-443

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 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. $36^{\circ}.00' N$ to Lat. $36^{\circ}.05' N$ and from Long. $114^{\circ}09.15' W$ to Long. $114^{\circ}21' W$.

This sheet covers Virgin Canyon, Lake Mead, Nevada-Arizona.

Hydrography began on 13 Jan., 1964 and was completed on 18 Sept., 1964.

This survey junctions with contemporary survey H-8803 (HFP 12-1-64) on the West, Scale 1:12,000 and contemporary survey H-8805 (HFP 12-3-64) on the East, Scale 1:12,000.

This survey also makes junction with prior Navy survey sheet No. 8 on the West and Navy survey sheet No. 10 on the East. Both sheets are dated 1948-1949, Scale 1:12,000.

This survey is covered by prior Navy survey sheet No. 9 dated 1948-1949, Scale 1:12,000.

C.SOUNDING VESSELS

The vessels used for hydrography were Launch CS 1177 identified by blue day letters and Launch CS 183 identified by violet day letters.

D.SOUNDING EQUIPMENT

Raytheon Fathometers, type D.E.-723 were used on Launches CS 1177 and CS 183. Fathometers # 263 and # 265 are 200 KC units and were used to obtain the basic sounding. Fathometer # 543 is a 20 KC unit and was used on crosslines.

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

For tabulation of corrections and Fathometer report see Appendix C.

In certain areas two fathometers were run simultaneously . The 200 KC fathometer was operated on feet and the 20 KC 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 sounding from the 20 KC fathogram was 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 therefore 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 indicates the methods used to locate the signals.

The hydrography was controlled by visual three point fixes. In all of the coves where 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 of Navy sheet No. 9 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 the junctions with contemporary survey H-8803 (HFP 12-1-64) and H-8805 (HFP 12-3-64) are in agreement. Contour curves can be adequately drawn at the junction.

J.COMPARISION WITH PRIOR SURVEYS

Comparision with Navy sheet No. 9, 1948-1949, Scale 1:12,000.

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

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

K.COMPARISION WITH CHART

Chart- C. & G.S. 5459A
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.

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

1. ROCK

Charted pos.	Lat.	36°03.48'
	Long.	114°16.77'
Charted elev.		1100
New elev.		1099
Located on		19 b-day CS 1177

It is recommended that the charted elevation be retained. *shown as #*

2. ROCK

Charted pos.	Lat.	36°03.56'
	Long.	114°16.33'
Charted elev.		1132
New elev.		1134 ✓
Located on		20 b-day CS 1177

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

K.COMPARISION WITH CHART(cont.)

3.ROCK

Charted pos.	Lat.	36°03.18'
	Long.	114°16.12'
Charted elev.		1122 ✓

This rock was investigated on 1 b-day CS 1177, and no evidence of its existance was found. It is recommended that this rock be *Deleted* deleted.

4.ROCK

Charted pos.	Lat.	36°03.20'
	Long.	114°16.47'
Charted elev.		1161
New elev.		1147 ✓
Located on		1 b-day CS 1177

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

5.ROCK

Charted pos.	Lat.	36°03.01'
	Long.	114°16.25'
Charted elev.		1108 ✓

This rock was investigated by running sounding lines over the area from 3 b-day to 11 b-day CS 1177. No evidence of its existence was found. It is recommended that the rock be deleted. *Deleted*

6.ROCK

Charted pos.	Lat.	36°02.50'
	Long.	114°15.81'
Charted elev.		1134 ✓

This rock was investigated on 21 b-day CS 1177. No evidence of its e existence was found. It is recommended that the rock be deleted. *Deleted*

K.COMPARISION WITH CHART(cont.)

7.ROCK

Charted pos.	Lat.	36°02.23'
	Long.	114°15.73'
Charted elev.		1136 ✓

This rock was investigated on 21 b-day CS 1177. No evidence of its existence was found. It is recommended that the rock be deleted. *Deleted*

8.ROCK

Charted pos.	Lat.	36°02.55'
	Long.	114°17.05'
Charted elev.		1124 ✓
New elev.		1127 ✓
Located on		1 k-day CS 183

It is recommended that the new elevation be charted.

Appd

9.ROCK

Charted pos.	Lat.	36°02.58'
	Long.	114°17.15'
Charted elev.		1094
New elev.		1108 ✓
Located on		59 b-day CS 1177

It is recommended that the new elevation be charted.

Appd

10.Sounding from chart

Charted pos.	Lat.	36°02.70'
	Long.	114°17.02'
Charted elev.		1088
New elev.		1082 ✓
Located on		58 b-day CS 1177

It is recommended that the new elevation be charted.

Appd

K. COMPARISION WITH CHART (cont.)

11. ROCK

Charted pos.	Lat.	36°01.72'
	Long.	114°16.48'
Charted elev.		1127
New elev.		1128 ✓
Located on		38 a-day CS 1177

It is recommended that the new elevation be charted.

Appd

12. ROCK

Charted pos.	Lat.	36°01.89'
	Long.	114°15.78'
Charted elev.		1140
New elev.		1139 ✓
Located on		28 g-day CS 183

It is recommended that the charted elevation be retained

No Corr.

13. ROCK

Charted pos.	Lat.	36°00.85'
	Long.	114°15.08'
Charted elev.		1100

This is not a rock but a point of land jutting out from the shore

Deleted

Rocks that were not investigated.

Reefs, rocks, or ledges above the 1150 foot 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 about the 1123 foot contour. All rocks, reefs, and ledges up to the 1150 foot contour were located and an elevation determined. Above the 1150 foot contour this survey is not adequate for charting.

M. AIDS TO NAVIGATION

There is one fixed lighted aid to navigation within the limits of this sheet at Lat. $36^{\circ}03.62'$ Long. $114^{\circ}17.37'$. This light was located on 13 e-day CS 183. ✓

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 so that if hit by a boat, it would bend and probably not inflict any serious damage to the boat.

N. STATISTICS

LAUNCH	NO. OF POS.	NAUTICAL MILES OF SOUNDING LINES
C.S. 183	964	110.4
C.S. 1177	188	19.7
Total area of survey		Total number of bottom samples
5.9 sq. nautical miles		8

Tide gages located at Hualpai Wash and Hoover Dam, provided lake level control for this sheet H-8804 (HFP 12-2-64) for additional information concerning tides and tide gages see Appendix A of this report.

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 volume is the shoreline of the lake at the time of hydrography which for this sheet varies from a lake level of 1135 to a lake level of 1096.

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
1000	red
950	blue
900	red
850	orange

A contour sheet (HFP 12-2-64) has been made of this sheet, contour drawn at 10 foot intervals. The original has been sent to the Bureau of Reclamation at Boulder City, Nevada and a copy has been sent to the Washington office.

Respectfully submitted,
Guy F. Trefelken
Guy F. Trefelken
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-8804 (HFP 12-2-64) was USGS third-order triangulation stations.

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

LIST OF SIGNALS

Hydrographic Survey H-8804 (HFP 12-2-64)

TRIANGULATION STATIONS

AXE	N-125	1948
BED	A-54	1948
BOB	A-49	1948
COP	N-123	1948
CUR	N-131	1948
DON	N-127	1948
FRY	A-40	1948
FUN	N-126	1948
GAL	N-117	1948
HID	A-45	1948
HOE	N-129	1948
ICE	N-132	1948
IVY	A-42	1948
JAY	N-121	1948
JIM	N-128	1948
LAX	A-55	1948
LIT	NAV. LIGHT POST	
LOG	A-51	1948
LUG	A-46	1948
OAK	A-41	1948
OLD	N-120	1948
PLY	N-122	1948
PUG	N-118	1948
RAM	A-43	1948
RIM	N-124	1948
SUE	A-56	1948
USE	A-47	1948
WAX	A-52	1948
YAP	A-44	1948
ZOO	N-116	1948

APPENDIX B (cont.)

TOPOGRAPHIC SIGNALS

The source of this list of (topo.& hydro.) signals is Master Control Sheet (HFP 12-2-64) except as noted.

ABE
ART
ATE
BAY (HFP 12-1-64)
BUT (HFP 12-1-64)
CAB
CAT
DEL (HFP 12-1-64)
DOG
DOT (HFP 12-1-64)
EAR
GET
GOB
IRK
LEO
MAG
NUB
PET
RAN
SOX
SUN
TAX
THE
TIE
WAY

HYDRO SIGNALS

ARE (HFP 12-2-64)
BAG (HFP 12-2-64)
BIL (HFP 12-2-64)
COB Vol. 5 page 29
DIG (HFP 12-2-64)
FAR (HFP 12-2-64)
JOE (HFP 12-2-64)
LAG (HFP 12-2-64)

FATHOMETER CORRECTIONS
 HYDROGRAPHIC SURVEY H-8874 - (12-2-64)
 Lake Mead, Nevada - Arizona

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

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

A SCALE

0.0 to 22.0	+0.4
22.0 to 47.0	+0.2
47.0 to 50.0	0.0

B SCALE	+0.2
C SCALE	0.0
D SCALE	0.0
E SCALE	-0.4
F SCALE	-0.5
G SCALE	-1.0
H SCALE	-1.0

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

A SCALE	+0.6
B SCALE	+0.1
C SCALE	-0.2
D SCALE	-0.8
E SCALE	-1.0
F SCALE	-1.4
G SCALE	-1.6
Deeper	-1.6

A SCALE

0.0 to 11.0	0.0
11.0 to 50.0	-0.2

B SCALE

40.0 to 72.0	-0.4
72.0 to 90.0	-0.6

C SCALE	-1.0
D SCALE	-1.0
E SCALE	-1.0
F SCALE	-1.0
G SCALE	-1.0
H SCALE	-1.0
I SCALE	-1.0
J SCALE	-1.0
K SCALE	-1.0

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

A SCALE

0.0 to 18.9	0.0
18.9 to 37.2	+0.2
37.2 to 50.0	+0.4

B SCALE

40.0 to 62.2	0.0
62.2 to 90.0	+0.2

FATHOMETER CORRECTIONS
 HYDROGRAPHIC SURVEY H- 8852 - (12-2-64)
 Lake Mead, Nevada - Arizona

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

Vessel: Launch CS-1177
 Day Letters: c,d
 Fath. No: DE-723 - #265

C SCALE	0.0
D SCALE	-0.3
E SCALE	-0.4
F SCALE	-0.9
G SCALE	+0.2
H SCALE	-0.1

<u>A SCALE</u>	
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 41.5	+0.8
41.6 to 48.0	+1.2

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

Fath Depth (ft.)	Corr. (ft.)
0.0 to 12.0	0.0
12.1 to 16.0	+0.2
16.1 to 20.0	+0.4
20.1 to 23.5	+0.6
23.6 to 26.5	+0.8
26.6 to 30.5	+1.0
30.6 to 47.5	+1.2
47.6 to 51.5	+1.4
51.6 to 55.5	+1.6
55.6 to 58.5	+1.8
58.6 to 61.5	+2.0
61.6 to 65.5	+2.2
65.6 to 146.0	+2.4
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

<u>B SCALE</u>	
48.0 to 49.0	+0.8
49.1 to 52.0	+1.0
52.1 to 56.5	+1.2
56.6 to 66.0	+1.4
66.1 to 80.5	+1.6
80.6 to 90.0	+1.8
C SCALE	+1.4
D SCALE	+1.4
E SCALE	+1.2
F SCALE	+1.0
G SCALE	+0.8

APPENDIX D

Approval sheet to accompany Hydrographic sheet H-8804
(HFP 12-2-64)

Project OPR-443

The records, corrections and all field and office work ~~was~~^{were}
supervised by

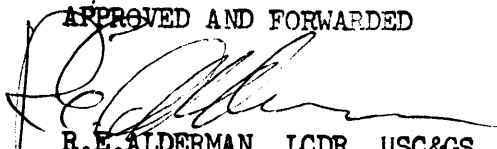
H.E.McCALL, LT.,USC&GS
P.A.STARK, CDR.,USC&GS

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 was written after my reporting.

APPROVED AND FORWARDED



R.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 8804

Locality: Lake Mead, Arizona - Nevada

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
Hoover Dam

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

Remarks


Chief, Tides and Currents Branch

GEOGRAPHIC NAMES
Survey No. H-8804

Name on Survey	Source of Name											
	A	B	C	D	E	F	G	H	K			
BURRO BAY												1
Delmar Butte												2
Gateway Cove												3
Mesa Cove												4
Osprey Bay												5
Salt Spring Bay												6
Teal Coves												7
Temple Bay												8
The Head												9
Twin Rapids Bay												10
Virgin Canyon												11
												12
												13
												14
												15
												16
												17
												18
												19
												20
												21
												22
												23
												24
												25
												26
												27

Names approved
April 12, 1967
Frank W. Pickett

HYDROGRAPHIC SURVEY STATISTICS
 HYDROGRAPHIC SURVEY NO. 8804

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	7					
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 - 8804

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>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>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>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>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>Date _____</p>				
<p>FORM C&G5-946A (11-65) USCOMM-DC 36272-P65</p>					

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-8804

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
661-56	12-8-66	Charles R. Kupfer	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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