8887

Diag. Cht. No. 4116-2.

FORM C&GS-504

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

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. PF 10-3-66 Office No. H-8887

LOCALITY

State HAWAII

General locality KAHOOLAWE

Locality SOUTHWEST COAST

1966

CHIEF OF PARTY

G. L. SHORT

LIBRARY & ARCHIVES

DATE 14 JAN 1971

USCOMM-DC 37022-P66

8887

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

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

REGISTER NO. H-8887

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. PF 10-3-66

State Hawaii

General locality Kahoolawe Island

Locality West coast of Kahoolawe Island

Scale 1: 10,000 Date of survey 3/12/66 to 4/14/66

Instructions dated December 6, 1965 Project No. OPR-419

Vessel USC&GSS PATHFINDER

Chief of party CDR. G.L. SHORT

Surveyed by G.L. SHORT, R.M. SUNDEAN, L.T. LYNCH, E.M. GELB, L. L-CASANOVA

Soundings taken by echo sounder, hand lead, ~~pole~~

Graphic record scaled by Ship personnel

Graphic record checked by Ship personnel

Protracted by M.W. Chalfant Automated plot by

Soundings penciled by M.W. Chalfant

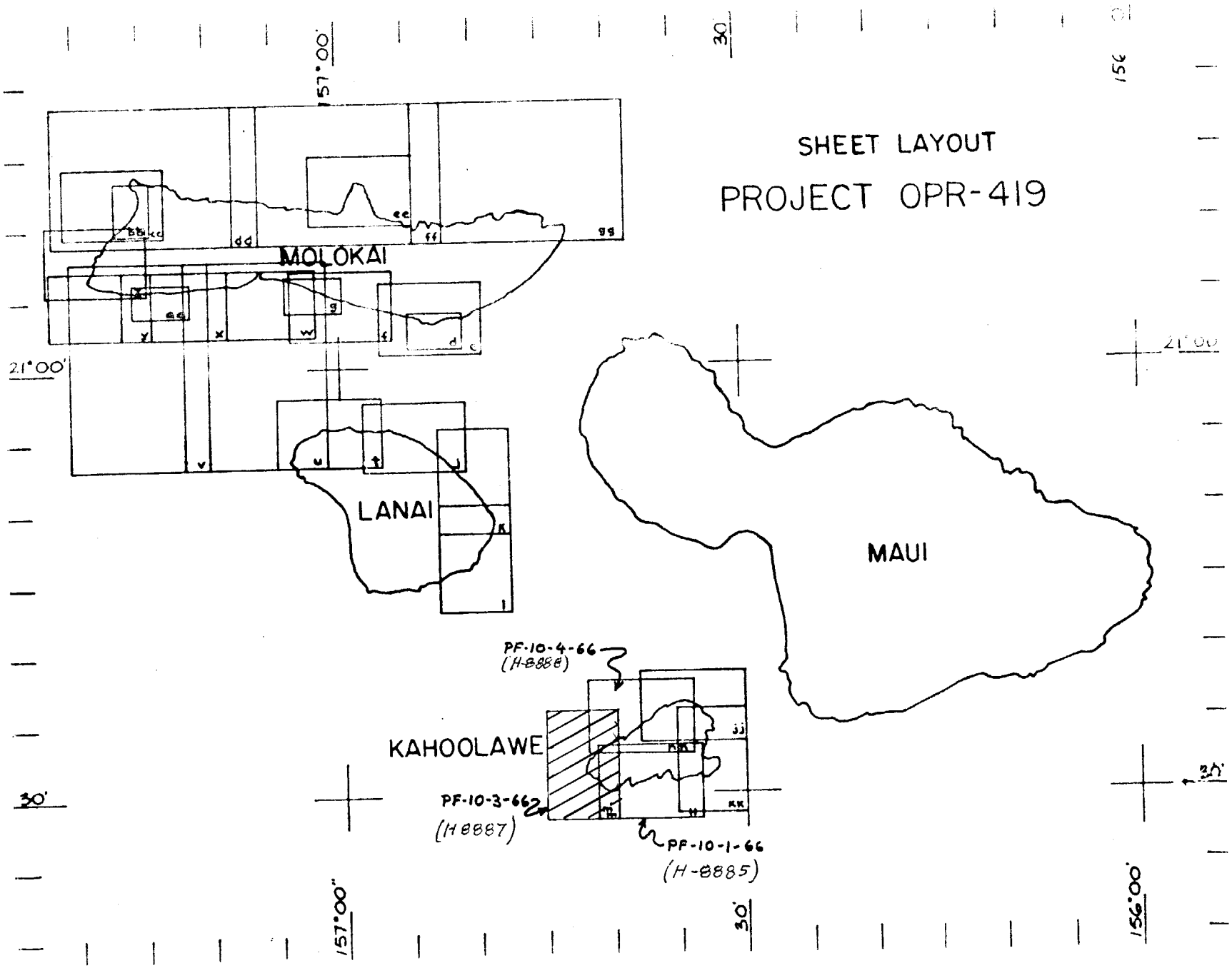
Soundings in fathoms ~~feet~~ at ~~MLW~~ MLLW

REMARKS:

Applied to Stds
2-19-71 CAS.
DJK

KWW 2/14/92

USCOMM-DC 19086-P65


SHEET LAYOUT
PROJECT OPR-419
MOLOKAI
LANAI
MAUI
KAHOOLAWE
PF-10-4-66
(H-8888)
PF-10-3-66
(H8887)
PF-10-1-66
(H-8885)
157°00'
30'
21°00'
156°00'

DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC SURVEY
H-8887 FIELD NUMBER PF-10-3-66

USC&GSS PATHFINDER
G. L. SHORT, COMMANDING

1966

SCALE 1:10,000

A. PROJECT

The hydrography on this survey was completed in accordance with Original Instructions: Project OPR-419 Hawaiin Islands, dated 5 October 1960, supplemented by Revised Instructions, dated 6 December 1965.

B. AREA SURVEYED

This survey covers the western coast of Kahoolawe Island, including Kuia Shoal. The hydrography extends from Lat 20° 29'N to 20° 35'N and Long 156° 40' 30" W to 156° 45' 30" W. This survey was begun on March 12, 1966 and was completed on April 14, 1966.

The following prior surveys cover the same area:

Registry Number	Scale	Year
H-2728	1:20,000	1904-5
H-5340	1:10,000	1932

This survey junctions with the following contemporary surveys:

Sheet Number	Scale	Year
H-8833 (NW & SW)	1:40,000	1965
H-8885 (SE)	1:10,000	1966
H-8890 (NE)	1:10,000	1966

C. SOUNDING VESSEL

Vessel	Color	Day Letters
PATHFINDER	BLUE	UPPER CASE
ML #1	blue	lower case
ML #3	green	lower case

D. SOUNDING EQUIPMENT

The following Model DE-723 Raytheon Fathometers were used on this survey.

Serial No.	Vessel	Date From	Date To	To Depth (fms)
140	PATHFINDER	3/24/66	3/24/66	95
551	PATHFINDER	3/26/66	3/27/66	138
935	PATHFINDER	3/28/66	3/29/66	218
557	PATHFINDER	4/06/66	4/06/66	64
935	PATHFINDER	4/08/66	4/08/66	49
145	ML #1	3/12/66	3/24/66	65
552	ML #3	3/13/66	4/08/66	48

Corrections to fathometer soundings were derived from bar checks between one and four fathoms, and temperature and salinity observations which were taken down to 600 meters. Four oceanographic stations were observed.

E. SMOOTH SHEET

The smooth sheet projection was computed and printed by the electronic data processing unit in Seattle. The projection was inked in Seattle by the smooth plotter.

F. CONTROL

Control for this survey was triangulation and photo-identified signals as shown on the following Advance Manuscripts (1:10,000 scale): T-12125 and T-12126 dated July 1965. No difficulty with the control was experienced.

G. SHORELINE

The shoreline details as shown on the manuscripts listed in F were found to be appropriately delineated. Ledge limits were added to the smooth sheet.

H. CROSSLINES

The crossing descrepancies which existed on the boat sheet and were reported in the preliminary descriptive report were resolved in the smooth plot after the correctors were applied.

I. JUNCTIONS

The soundings agree very well at the junction with the contemporary survey (H-8833). This junction survey is a 1:40,000 scale, Shoran controlled sheet.

J. COMPARISON WITH PRIOR SURVEYS

The general agreement with prior surveys H-2728 (1:20,000) and H-5340 (1:10,000) is excellent. The soundings check to one fathom or less.

K. COMPARISON WITH THE CHART

The chart compared with this survey was USC&GS 4130 (1:80,000), 4th edition, August 31, 1964, corrected by Notice to Mariners Number 7 February 12, 1966.

Soundings of 2 fathoms, 1.9 fathoms and 1.7 fathoms were found 0.2nm south of the 1 fathom depth indicated on the chart at Lat 20° 31'.8 N and Long 156° 42'.8 W. The shoalest hand lead sounding obtained was 12 feet. A depth of 3.6 fathoms was found by this survey at the location corresponding to the 1 fathom shoal on the chart. See Verifier's report

Soundings of 4.2 fathoms and 3.6 fathoms were found 0.1nm south of the 3 fathom depth indicated on the chart at Lat 20° 31'.6 N and Long 156° 43'.4 W. The shoalest hand lead sounding obtained was 38 feet. A depth of 11 fathoms was found by this survey at the location corresponding to the 3 fathom shoal on the chart.

An uncharted mooring buoy approximately four feet in diameter, was found 145 meters SE of signal NUB. The U.S. Navy was contacted on April 18, 1966, and they recommended that the buoy should not be charted. The Navy expects to remove the buoy in the near future according to ACOS Operations COMHAWSEAFRON. Not shown on smooth sheet

The large offshore boulder, signal ROK on the boatsheet, is not readily identifiable on the chart. It is recommended that the position of the boulder be clarified for use as a landmark. The name Black Rock is used locally for this object.

L. ADEQUACY OF SURVEY

This survey is complete and adequate to supersede all prior surveys for charting.

M. AIDS TO NAVIGATION

One fixed aid to navigation is within the limits of this survey. The charted, photo, triangulation, and Light List

positions of Kahoolawe Southwest Point Light (Light List 3674) were found to agree. The description as published in the Light List is adequate.

N. STATISTICS

Vessel	Naut. Mi. Soundg. Ln.	Number of Positions	Square Naut. Mi.
PATHFINDER	116.1	~~568~~ 621	
ML #1	76.8	542	
ML #3	113.4	~~792~~ 775	
TOTAL	306.3	~~1902~~ 1938	18.0

One magnetic station was observed on the area covered by this sheet. The station was ERR 2, 1963.

Bottom samples were not taken in this area due to the presence of live ordnance in the vicinity. The enclosed letter from the Director, Pacific Marine Center, subject Bottom Samples - Kahoolawe Island, dated 22 March 1966, grants permission to omit bottom samples.

O. MISCELLANEOUS

None

P. RECOMMENDATIONS

None

Q. REFERENCES

Enclosed is the letter from the Chief, Tides Section, subject - Tidal data OPR-419, dated 11 August 1966.

Copies of the correspondence concerning the use of an oversized sheet, for the smooth plot, are attached.

Abstracts of the velocity, tide, phase and draft corrections used , to reduce the soundings in this survey, have been included.

Michael W. Chalfant

Michael W. Chalfant
Ensign USESSA

H-8887
(PF 10-3-66)

11/28/66

I. JUNCTIONS

Comments concerning the four fathom discrepancies between the junction soundings on H-8887 and H-8833 are resolved when the velocity corrections are applied to H-8887. The problem was that the soundings on H-8887 were unreduced boat sheet soundings and the soundings on H-8833 were final reduced smooth sheet soundings. The general depth of water is 75 to 85 fathoms giving a velocity correction of +3.6 fms. ✓

D. L. Sweetland

D. L. Sweetland
ENS USESSA

TIDE NOTE

Hydrography was controlled by a bubbler tide gage installed at Kaumalapau harbor on Lanai Island. However due to the poor records received (see attached memo dated 11 August 1966) the hourly heights were obtained from Washington to reduce the soundings. The hydrography was run using the 135 time meridian while the gage was on the 150 time meridian so 1 hour was added for the hourly heights. MLLW, computed from level records, is 1.9 feet above staff zero.

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

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

TIDE NOTE FOR HYDROGRAPHIC SHEET

October 31, 1967

~~Nautical Chart Division~~ Pacific Marine Center

Plane of reference approved in
11 volumes of sounding records for

HYDROGRAPHIC SHEET 8887

Locality: Kahoolawe Island, Hawaii

Chief of Party: G.L. Short (1966)

Plane of reference is mean lower low water

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

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

Remarks

J. M. Symons
Chief, Tides and Currents Branch

USCOMM-DC 6680-P64

F00

F D-121A UNITED STATES GOVERNMENT
(Prog. by A.O. 206-10)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

Memorandum

ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION

: The Commanding Officer
USC&GS Ship PATHFINDER
1801 Fairview Avenue, East
Seattle, Washington 98102

DATE: August 11, 1966

In reply refer to:
C3312-155-CSS 8

FROM : Chief, Tides Section
Oceanography Division

SUBJECT: Tidal data, OPR-419

Requested hourly heights are enclosed. Honolulu tabulations are furnished in lieu of Kaumalapau observations. The Kaumalapau record showed evidence of a shifting datum and had to be discarded. MLLW, computed from level records, is 1.9 ft. above staff zero.

Mean lower low water at the other stations is:

Kamalo	2.2 ft. on staff No. 1
Kaunakakai	3.2 ft. on staff

Reference to new staff at Kamalo and requested July observations at Honolulu will be furnished as soon as possible.

Martha A. Winn

Martha A. Winn

Enclosures

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

SHIP PATHFINDER
OPR-419
TIDE CORRECTIONS

DATE	HARBOR 0 T.G.	CONVERT. time	TIDE CORR. 0-31 (fms)	TIDE CORR. 31-101 (fms)
FEBRUARY 27	KAMUALAPAU	1000	-0.1	-0.2
		1355	0.0	0.0
		1500		
MARCH 2	KAUMALAPAU	0800	-0.1	-0.2
		0816	0.0	0.0
		1055	-0.1	-0.2
		1340	-0.2	-0.2
		1415	-0.1	-0.2
		1600		
MARCH 3	KAUMALAPAU	0800	0.0	0.0
		1155	-0.1	-0.2
		1700		
MARCH 12	KAUMALAPAU	0800	-0.1	-0.2
		1205	0.0	0.0
		1630		
MARCH 13	KAUMALAPAU	0800	-0.1	-0.2
		1343	0.0	0.0
		1715	-0.1	-0.2
		1800		
MARCH 23	KAUMALAPAU	0800	-0.2	-0.2
		0855	-0.1	-0.2
		1025	0.0	0.0
		1335	0.0	-0.2
		1502	-0.2	-0.2

DATE	HARBOR 0 T.G.	CONVERT. time	TIDE CORR. 0-31 (fms)	31-101 (fms)
		1630		
MARCH 24	KAUMALAPAU	0900	-0.2	-0.2
		0905	-0.1	-0.2
		1040	0.0	0.0
		1335	-0.1	-0.2
		1528	-0.2	-0.2
		1700		
MARCH 25	KAUMALAPAU	0900	-0.1	-0.2
		1122	0.0	0.0
		1405	-0.1	-0.2
		1557	-0.2	-0.2
		1620		
MARCH 26	KAUMALAPAU	0800	-0.2	-0.2
		0908	-0.1	-0.2
		1140	0.0	0.0
		1347	-0.1	-0.2
		1612	-0.2	-0.2
		1700		
MARCH 27	KAUMALAPAU	0800	-0.1	-0.2
		1200	0.0	0.0
		1440	-0.1	-0.2
		1700		
MARCH 28	KAUMALAPAU	0700	-0.1	-0.2
		1700		
MARCH 29	KAUMALAPAU	1300	-0.1	-0.2
		1800		

DATE	HARBOR ⊙ T.G.	CONVERT. time	TIDE CORR. 0-31 (fms)	31-101 (fms)
MARCH 30	KAUMALAPAU	0800	0.0	0.0
		0934	-0.1	-0.2
		1635	0.0	0.0
		1800		
APRIL 6	KAUMALAPAU	1100	0.0	0.0
		1352	-0.1	-0.2
		1505	-0.2	-0.2
		1613	-0.3	-0.4
		1732	-0.4	-0.4
		1840	-0.3	-0.4
		1900		
APRIL 7	KAUMALAPAU	0800	-0.1	-0.2
		0940	0.0	0.0
		1400	-0.1	-0.2
		1535	-0.2	-0.2
		1645	-0.3	-0.4
		1700		
APRIL 8	KAUMALAPAU	0800	-0.2	-0.2
		0835	-0.1	-0.2
		1100	0.0	0.0
		1500	-0.2	-0.2
		1728	-0.3	-0.4
		1800		
APRIL 9	KAUMALAPAU	0800	-0.1	-0.2
		1145	0.0	0.0
		1500		

DATE	HARBOR 0 T.G.	CONVERT. TIDE CORR. time	0-31 (fms)	31-101 (fms)
APRIL 11	KAUMALAPAU	0900		
			-0.1	-0.2
		1700		
APRIL 12	KAUMALAPAU	0800		
			0.0	0.0
		0950		
			-0.1	-0.2
		1500		

PHASE CORRECTIONS
PATHFINDER
OPR -419
PF-10-3-66 H-8887

Fath	Vessel	Day	Phase	Phase Correction (FMS)	
#551	PATHFINDER	B	B	-0.6	
			C	-2.3	
			D	-3.3	
#551		C	B	-0.6	
#935		D	B	-0.6	
			C	-1.3	
			D	-1.9	
			E	-3.0	
			F	-3.7	
#935		E	B	-0.5	
			C	-0.9	
			C*	-1.7	
			D	-1.5	
			D*	-2.3	
			E	-2.6	
			F	-3.4	
#557		F	B	+1.0	
#557		G	B	+0.8	
#145	ML#1	a	B	0.0	*For 2nd. sounding out of fix #24 thru fix #25 only.
#145		b	B	0.0	
Unknown	ML#3	a	B	-0.2	

GEOGRAPHIC NAMES PENCILED ON SMOOTH SHEET

H-8887

HONOKOA BAY

KAHOOLAWE ISLAND

KEALAIKAHIKI CHANNEL

KEALAIKAHIKI POINT

KUIA SHOAL

SMUGGLER COVE

USC&GS SHIP PATHFINDER
CDR. G. L. Short, Comdg.

ECHO CORRECTIONS
PF 10-3-66

Vessel	Date	Day	Corrector in fms 0 up to 31fms	Corrector in fms 31fms up
ML 1	3/12/66	a	0.3	0.2
	3/13/66	b	0.2	0.2
	3/23/66	c	0.3	0.2
	3/24/66	d	0.3	0.4
ML 3	3/13/66	a	0.4	0.4
	3/23/66	b	0.2	0.2
	3/24/66	c	0.2	0.2
	3/25/66	d	0.2	0.2
	3/26/66	e	0.3	0.2
	3/27/66	f	0.2	0.2
	3/28/66	g	0.2	0.2
	4/08/66	h	0.3	0.2

SHIP PATHFINDER
OPR 419

DATE	DRAFT (ft) mdshps	DRAFT CORRECTIONS DRAFT (fms) mdshps	INITIAL (fms)	FATH. INSTR. CORR. (fms)	DRAFT CORR.
Feb. 27	15.0	2.5	2.0	-0.1	+0.4
Mar. 12	14.7	2.4	2.0	-0.1	+0.3
13	14.5	2.4	2.0	-0.1	+0.3
15	14.3	2.4	2.0	-0.1	+0.3
16	14.3	2.4	2.0	-0.1	+0.3
17	13.9	2.3	2.0	-0.1	+0.2
23	15.0	2.5	2.0	-0.1	+0.4
24	14.9	2.5	2.0	-0.1	+0.4
26	14.8	2.5	2.0	-0.1	+0.4
27	14.7	2.4	2.0	-0.1	+0.3
28	14.4	2.4	2.0	-0.1	+0.3
29	14.2	2.4	2.0	-0.1	+0.3
30	14.2	2.4	2.0	-0.1	+0.3
Apr. 06	15.1	2.5	2.0	-0.1	+0.4
07	15.0	2.5	2.0	-0.1	+0.4
08	15.0	2.5	2.0	-0.1	+0.4
09	14.9	2.5	2.0	-0.1	+0.4
11	14.5	2.4	2.0	-0.1	+0.3
12	14.4	2.4	2.0	-0.1	+0.3
13	14.3	2.4	2.0	-0.1	+0.3
14	14.2	2.4	2.0	-0.1	+0.3
21	14.7	2.4	2.0	-0.1	+0.3
22	14.6	2.4	2.0	-0.1	+0.3
23	14.5	2.4	2.0	-0.1	+0.3
24	14.4	2.4	2.0	-0.1	+0.3
25	14.2	2.4	2.0	-0.1	+0.3
26	14.0	2.3	2.0	-0.1	+0.2
27	13.8	2.3	2.0	-0.1	+0.2
28	13.7	2.3	2.0	-0.1	+0.2

7-10 LIST OF SIGNALS

List of stations on H-8887 (PF-10-3-66)

Signal Name	Origin of Station
AMY	T-12125
BOX	T-12125
CAT	T-12125
DOG	T-12125
EVA	T-12125
FOG	T-12125
GUS	T-12125
HEX	T-12126
IVY	T-12126
JAR	T-12126
JOE	T-12126
KET	T-12126
KEY	T-12126
LAW	T-12126
LIZ	T-12126
MAR	T-12126
MOP	HYDRO, Vol. 2 P. 12
NIX	T-12126
NUB	HYDRO, Vol. 2 P. 12
ODD	T-12126
OUT	LOOKOUT POST BLOCKHOUSE, 1963
POI	KAHOOLAWE SOUTHWEST POINT LIGHT, 1963
POT	T-12126
QUE	T-12126
RAM	T-12125
ROK	T-12125
SAD	T-12125
TAN	T-12125
TOW	TOWER CONCRETE (HANA, 1963)
UTE	T-12125
VEX	T-12125
WOO	T-12125
YAK	T-12125
ZAG	T-12125

USC&GSS PATHFINDER
G. L. Short, Comdg.
1966

Velocity corrections to be applied to all 1966 hydrography on sheets

PF 10-5-65, PF 10-1-66, PF 10-2-66, PF 10-3-66, PF 10-4-66,
PF 10-5-66, PF 10-6-66, PF 10-7-66, PF 10-8-66, PF 20-1-66, PF 20-2-66

TO DEPTH (fms)	CORRECTION (fms)	TO DEPTH (fms)	CORRECTION (fms)
0.0 - 3.0	0.00	72.6 - 77.2	3.2
3.1 - 5.3	0.1	77.3 - 82.0	3.4
5.4 - 7.8	0.2	82.1 - 86.7	3.6
7.9 - 10.0	0.3	86.8 - 91.3	3.8
10.1 - 12.3	0.4	91.4 - 95.8	4.0
12.4 - 14.5	0.5	95.9 - 100.5	4.2
14.6 - 16.8	0.6	100.6 - 112	4.5
16.9 - 19.5	0.7	113 - 125	5.0
19.6 - 21.5	0.8	126 - 140	5.5
21.6 - 23.8	0.9	141 - 158	6.0
23.9 - 26.0	1.0	159 - 178	6.5
26.1 - 28.3	1.1	179 - 200	7.0
28.4 - 31.6	1.2	201 - 232	7.5
31.7 - 36.2	1.4	233 - 273	8.0
36.3 - 41.0	1.6	274 - 320	8.5
41.1 - 45.3	1.8	321 - 368	9.0
45.4 - 50.0	2.0	369 - 418	9.5
50.1 - 54.5	2.2	419 - 460	10.0
54.6 - 59.0	2.4	461 - 495	10.5
59.1 - 63.5	2.6	496 - 527	11.0
63.6 - 68.0	2.8	528 - 558	11.5
68.1 - 72.5	3.0	559 - 584	12.0

*All velocity corrections are positive and to be added

FORM CD-121 (9-22-59)
(PRES. BY A.O. 206-10)

UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

TO : Director
Pacific Marine Center

DATE: March 15, 1966

FROM : Commanding Officer
Ship PATHFINDER

SUBJECT: REVISED INSTRUCTIONS, PROJECT OPR-419 DATED DECEMBER 6, 1965

Obtaining bottom characteristics around Kahoolawe Island is not considered safe due to the presence of unexploded ordnance in the restricted area around the island. If the bottom sampler dropped on a piece of ordnance equipped with an impact fuse, or any other piece with an unstable explosive, an explosion damaging to the ship and personnel could result. The ship is not anchored at Kahoolawe Island because of this danger.

Bottom characteristics from previous surveys are shown on the current charts of the area.

It is requested that the subject instructions be amended to omit bottom sampling in the restricted area surrounding Kahoolawe Island.

G L Short

G. L. Short

ROUTING
DPMC
Proj
TAst
EDat
HDat
ADM
Pers
Supp
Whse
GCEO
Phys
Geo
Lab
FAC
Inst
Case
Return to PROJ

F01

FORM CO 121

UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

TO : Commanding Officer
USC&GSS PATHFINDER

DATE: 22 March 1966

In reply refer to: 4050/01.3-5
CF22

FROM : Director
PACMARCEN

SUBJECT: Bottom Samples - Kahoolawe Island

Permission is granted to omit bottom samples in the vicinity of Kahoolawe Island, At no time are project instructions intended to jeopardize the safety of personnel or equipment.

A statement in the pertinent descriptive reports stating why bottom samples were omitted is all that is required. A formal amendment to the project instructions will not be written.

Harold J. Seaborg

Harold J. Seaborg

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

The Director
Coast & Geodetic Survey

May 26, 1966

Commanding Officer
USC&GSS PATHFINDER

Oversized sheet

Permission is requested to use a 42 X 60 inch sheet for the smooth plot of PF-10-3-66 (H-8887). To keep soundings plotted no closer than 3" from the edge of the sheet the 42" width is necessary.

G.L. Short

G.L. Short
CDR, USESSA

FM CD-121 (1-63) RES. BY C.O. 206-10)

UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION

TO : Commanding Officer
USC&GS Ship PATHFINDER

DATE: JUN 3 1966

In reply refer to: C3.3

FROM : Associate Director
Hydrography and Oceanography

Your reference:
Your memo dated May 26, 1966

SUBJECT: Boat sheet PF-10-3-66 (H-8887)

This office does not have necessary records to identify subject boat sheet.

A decision will be made on your request to smooth plot the survey on oversize paper when the boat sheet is received in this office for copying.

Don A. Jones

11 June 1967

The boat sheet was submitted for copying. The smooth sheet was started on a 42 inch sheet assuming this procedure would be approved as it would have been impossible to include all the hydrography on a 36 inch sheet. As of this date no reply has ever been received.

Ray M. Sundean
Field Operations Officer
USC&GS Ship PATHFINDER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

Form 567
April 1945

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

TO BE CHARTED / ~~TO BE DISCONTINUED~~ } STRIKE OUT ONE

USC&GS Ship PATHFINDER, 1966

I recommend that the following objects which have (~~have not~~) been inspected from seaward to determine their value as landmarks be charted on (~~deleted from~~) the charts indicated.

The positions given have been checked after listing by Lt(jg) Edward M. Gelb

CDR G. L. Short
Chief of Party.

STATE HAWAII

CHARTING NAME	DESCRIPTION	SIGNAL NAME	POSITION LATITUDE * ° ′	″ D.M. METERS	LONGITUDE * ° ′	″ D.P. METERS	DATUM	METHOD OF LOCATION AND SURVEY No.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
BLACK ROCK	Offshore Boulder	ROK	20 31	532.8	156 42	995.9	Old Haw'n	Photo T-12125			X		4130

7-11 APPROVAL SHEET

REGISTRY NO. H-8887(PF 10-3-66)

The field work on this sheet was inspected where conditions permitted. The records have been examined and approved.

The survey is considered complete and adequate for charting purposes and no additional field work is recommended.

G.L. Short
CDR USESSA
Cmdg. Ship PATHFINDER

D. SOUNDING EQUIPMENT

For all Raytheon 723 fathograms, stylus arm corrections were scaled and checked by personnel of the PMC Verification Branch. When the stylus arm correctors were applied to the phase comparison readings, the phase errors cancelled out for all practical purposes.

The percent of stylus arm correction was entered in the sounding volumes at the beginning of each day's work. This entry was made in red ink. The phase correctors (as enterred by Ship's Personnel) were cancelled; and the stylus arm correctors entered instead, again using red ink.

E. SMOOTH SHEET

One hundred percent of the positions were plotted and all soundings were pencilled by the ship's personnel. These pencilled soundings were incorrect, because erroneous phase corrections had been applied and because stylus arm errors were not taken into account. This survey was verified and inked by several members of the Seattle Processing Office.

About 31% o f the positions were checked by the verifiers and about 4% of the positions were replotted and corrected. Inadvertently the procedure in establishing

stylus arm corrections was in error and phase correctors were not deleted. This discrepancy was not discovered until most of the soundings had been inked. (See also item I Junctions of this report.)

The final reduced soundings are shown in green pencil. By actual count 2040 soundings were altered and of these 1552 had already been inked incorrectly.

I. JUNCTIONS

The status of the junctions are as follows: H-8883 (1965) 1:40,000 has been compared and appears to make a satisfactory junction. Final soundings are not available in Seattle, hence remains to be completed. H-8885 (1966) was completed; the junction soundings that were transferred from this survey are incorrect because some final sounding on this survey were alterred. Depth curves also need minor realignment. H-8885 was transmitted before we discovered the errors in this survey (H-8887). H-8888 (1966) the junction soundings appear on this survey (H-8887) and junction is complete.

K. COMPARISON WITH THE CHART

Chart 4130, 6th Ed., Feb. 10, 1969, was compared with this survey. The one fathom sounding on this chart at Latitude 20°31.78' and Longitude 156°42.84' was a pre-survey review item originating with H-2728 apparently does not exist. A diligent search through all fathograms covering this area on the present survey was made. No

one fathom sounding was found in this area. On "g" day Launch #3 Volume 9 page 30 there is a field note in the remarks column, which states that: 1 hr 15 min was spent investigating this shoal. The shoalest hand lead sounding was 12 feet. On "d" day Launch #3 Volume 5 page 69 a 1.7 fathom sounding was found on this reef. It is there fore recommended that the one fathom sounding at Latitude 20°31.78' and Long 156°42.84' on the chart be deleted.

Three rocks shown on the chart are not found by the modern survey and hence not shown on H-8887. These rocks are not shown on either the boatsheets or the shoreline manuscripts. The chart locations are as follows:

1. Lat 20°30.6'N Long 156°41.1'W
2. Lat 20°30.7'N Long 156°41.2'W
3. Lat 20°31.2'N Long 156°41.4'W

O. MISCELLANEOUS

These verifier's notes were compiled and edited from rough notes made by the several employees who had worked on this survey in the Seattle Processing Office.

Respectfully submitted,

Cornelius A.J. Pauw

Cornelius A.J. Pauw

FORM 197
(3-16-55)

GEOGRAPHIC NAMES

Survey No. H-8887

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	
Honokoa Bay										1
Kahoolawe Island										2
Kealaikahiki Channel										3
Kealaikahiki Point										4
Koia shoal										5
Pacific Ocean										6
Smuggler Cove										7
										8
										9
										10
										11
										12
										13
										14
										15
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										24
										25
										26
										27

PREPARED BY

Frances M. Fickett

CARTOGRAPHIC TECHNICIAN

APPROVED BY

A. Joseph Wright

CHIEF GEOGRAPHER

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. H-8887

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

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET	1	BOAT SHEETS	2
DESCRIPTIVE REPORT	1	OVERLAYS	

DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/ SOURCE DOCUMENTS
ENVELOPES						
CAHIERS	1					
VOLUMES	11					
BOXES						

T-SHEET PRINTS *(List)* T-12125 & T-12126

SPECIAL REPORTS *(List)*

OFFICE PROCESSING ACTIVITIES

The following statistics will be submitted with the cartographer's report on the survey

PROCESSING ACTIVITY	AMOUNTS			
	PRE-VERIFICATION	VERIFICATION	REVIEW	TOTALS
POSITIONS ON SHEET				1938
POSITIONS CHECKED		606		
POSITIONS REVISED		82		
DEPTH SOUNDINGS REVISED		2040		
DEPTH SOUNDINGS ERRONEOUSLY SPACED		232		
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED				
	TIME (MANHOURS)			
TOPOGRAPHIC DETAILS		12		
JUNCTIONS		40		
VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS		270		
SPECIAL ADJUSTMENTS Stylus Arm Corrections		176		
ALL OTHER WORK		146		
TOTALS		644		

PRE-VERIFICATION BY	BEGINNING DATE	ENDING DATE
VERIFICATION BY J. Smith & Cornelius A. J. Power	BEGINNING DATE Aug 11 1969	ENDING DATE Dec 24, 1970
REVIEW BY	BEGINNING DATE	ENDING DATE

USCOMM-DC 36271-P65

FORM C&GS-946A
REV. 11-65)
ES. BY HYDROGRAPHIC
NUAL, 6-94)

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

VERIFIER'S REPORT

HYDROGRAPHIC SURVEY, H 8887

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. T-12125 & T-12126 Remarks Required: -- None	✓	
Part II - SHORELINE AND SIGNALS		
4. Source of shoreline signals Remarks Required: -- List all surveys T-12125 & T-12126 were completed July 4, 1965	✓	
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 see notes	✓	
(b) line turns	good	
(c) position values of beginning and ending of lines	✓	
(d) bar check or velocity correctors	very good	
(e) time recording	good	
(f) notes or markings on fathograms	"	
(g) was reduction of soundings accurately done?	yes	
(h) was scanning accurate?	"	
(i) were peaks at uneven intervals missed?	few	
(j) were stamps completed?	yes	
(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	None	
Part IX - BOAT SHEET		
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. see letter dated 15 March 1966 Remarks Required: -- None	None	
Part XI - NOTES TO THE REVIEWER		
34. Unresolved discrepancies and questionable soundings.	None	
35. Notation of discrepancies with photogrammetric survey inserted in report of unreviewed photogrammetric survey or on copy.	None	
36. Supplemental information.	None	

Verified by [signature]

Date: OCT. 28, 1969

FORM C&GS-946A (11-65)

USCOMM-DC 36272-P65

APPROVAL SHEET

This smooth sheet has been inspected and meets the requirements of the Hydrographic Manual. (NOTE: Exceptions are noted in the verifier's report.)

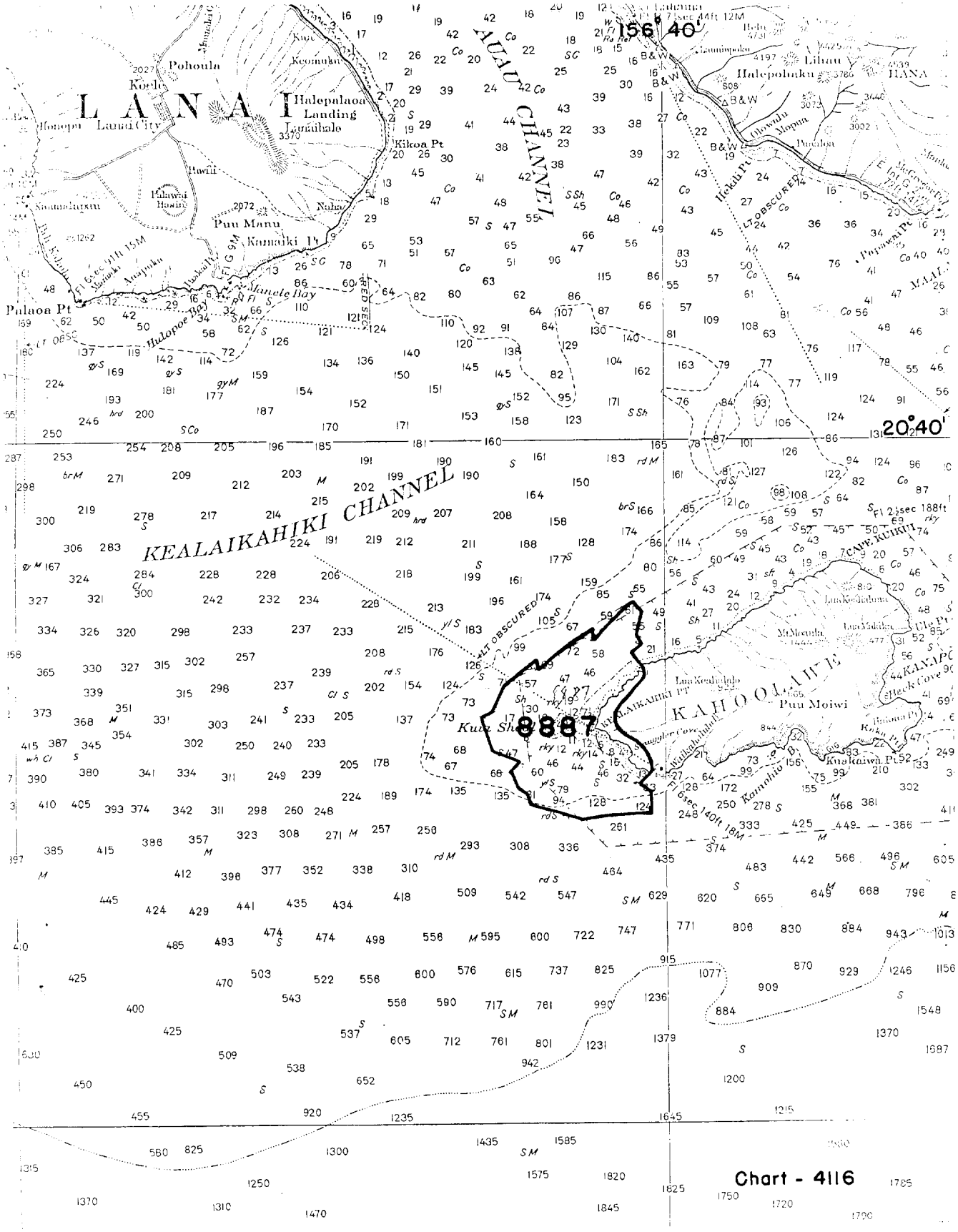
Examined and Approved

Cornelius A.J. Pauw
Carto Tech

William M. Martin
Supervisory Carto. Tech.

Approved and Forwarded

Larry W. Mordock, LT, NOAA
Acting Chief, Processing Division
Pacific Marine Center



LANAI
Pohoula
Koele
Lanai City
Halepalaoa Landing
Lanaihale
Kikoa Pt
Puu Manu
Kamaiki Pt
Palaoa Pt
Manele Bay
Hulopoe Bay
AUAU CHANNEL
KEALAIKAHIKI CHANNEL
KAHOOLAWE
Puu Moiwi
Kuia Shoal
Kuakaiwa Pt
Lihau
Halepohaku
HANA
156°40'
20°40'
8887
Chart - 4116

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-8887

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
4130	5-5-71	J.C. Graham	~~Full~~ Part ~~Before~~ After Verification Before Review Inspection Signed Via
			Drawing No. 15 App'd misc. critical corrections only. before
4179	5/10/71	J.H.G. Millar	~~Full~~ Part ~~Before~~ After Verification Review Inspection Signed Via
			Drawing No. 9 No critical corr at this scale of this time thru 4130
4116	5/26/71	C.B. Samuel	~~Full~~ Part ~~Before~~ After Verification ~~Review Inspection Signed Via~~
			Drawing No. Examined thru Cht 4130 - no critical corr's.
4000	8/25/71	C.S. Forbes	~~Full~~ Part ~~Before~~ After Verification ~~Review Inspection Signed~~ Via
			Drawing No. Examined thru Cht 4130 - no critical corrections.
4102	1/27/72	J. Graham	~~Full~~ Part ~~Before~~ After Verification ~~Review Inspection Signed Via~~
			Drawing No. 28 App'd for critical corr. only thru Cht 4116 dwg #16
4180	3/15/72	E. Frey	~~Full~~ Part ~~Before~~ After Verification ~~Review Inspection Signed~~ Via
			Drawing No. 11 App'd for critical corrections only thru cht 4102 dwg #28
4001	8/29/72	CS. Forbes	~~Full~~ Part ~~Before~~ After Verification before Review Inspection ~~Signed~~ Via
			Drawing No. App'd for critical corrections only thru chart 4102 dwg 29
4116	7/19/73	C.S. Forbes	~~Full~~ Part ~~Before~~ After Verification before Review Inspection Signed Via
			Drawing No. Exam thru chart 4116 #16 - no critical corrections
4000	9-19-77	M. Sager	Full ~~Part Before~~ After Verification ~~Review Inspection Signed~~ Via
			Drawing No. 15 Examined Thru chart 4102 DRWG #31
			No corrections at this scale.
4102	10-27-77	C.S. Forbes	Full ~~Part Before After~~ Verification ~~Review Inspection Signed~~ Via
			Drawing No. Consider application as final. No additional corrections.
4179	12-02-77	C.S. Forbes	Final application after verification. No additional corrections
4130	12-28-77	M. Sager CAT-I	Final after verification (Not Reviewed) No corrections
4116	12-29-77	M. Sager CAT-I	Final after Verification (Not Reviewed) Examined thru chart 4130 - No corrections
19007	3-23-83	L.A. Semmens	Consider Fully app'd thru 19010 #12. No Corr.
19320	5/7/92	J. Sherman	No Corrs / Fully appld

FORM C&GS-8352 SUPERSEDES ALL EDITIONS OF FORM C&GS-975.

USCOMM-DC 8558-P63