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Form 504

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

....., Director

U. S. COAST AND GEODETIC SURVEY  
L. & A.

State: Hawaiian Is.      Acc. No.

DESCRIPTIVE REPORT

*Topographic* } Sheet No. <sup>3</sup> 4702  
*Hydrographic* }

LOCALITY

Kauai - E. Coast

Nawiliwili Bay

1927

CHIEF OF PARTY

F.C. Engle

GOVERNMENT PRINTING OFFICE

Form 504

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

State: Hawaiian Islands

11-5013

DESCRIPTIVE REPORT.

Hydro. Sheet No. 3 4702

LOCALITY:

Kauai Island

Nawiliwili Bay, East coast of Kauai.

19~~27~~

CHIEF OF PARTY:

F. G. Engle

DESCRIPTIVE REPORT  
to accompany  
HYDROGRAPHIC SHEET #5 NAWILIWILI BAY, KAUAI, T. H.  
Commanding Officer's Instructions dated November 23, 1926  
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LIMITS: This sheet covers the hydrography of Nawiliwili Bay and approaches, and joins at its outer limits with sheet No. 2,1:20,000. Sounding lines were carried offshore to approximately the 10 fathom curve.

SURVEY METHODS AND CONTROL: Control for this survey consisted of the two lights, located by triangulation and of a series of topographic signals, located on topographic sheet B, Nawiliwili Bay, 1:5,000.

This survey was made in accordance with the usual methods of launch hydrography, using a 30 ft. motorsailer and a copper centered hand lead line with a 10 lb. lead. The sounding lines were carried as close to the beach as safety would permit.

Tidal reducers for this sheet were obtained from a portable automatic gauge operated at the dock in this bay.

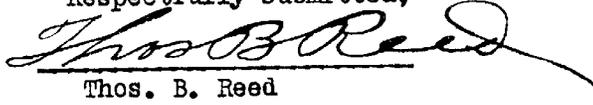
GENERAL DESCRIPTION: This subject is covered by the descriptive report accompanying the topographic sheet of this bay. As soon as the retaining wall, shown under construction is completed (in a few months) the harbor is to be dredged to a depth of 30 feet and the dredged material used to fill in the entire section behind the stone retaining wall. As soon as the present harbor project is completed Nawiliwili Bay will be the best harbor on the Island.

LANDMARKS: The most prominent landmark for identifying the bay when approaching from the eastward is the high black colored hills just south of the entrance. The various houses, shown on the topo sheet along the shore of the bay are fairly prominent but do not show far to seaward. Signal DOCK is the center of the loading derrick on the dock. Signal BROWN is the north gable of a brown house on the bluff.

INSHORE DANGERS: Northward along shore from signal NIN, the outer limits of the foul area along shore was sketched from the inner ends of the sounding lines. 100 meters N E of signal NIN there is a rock with approximately 2 feet over it at low water. This was located by the hydrographic party. 50 meters offshore between signals NIN and BOW there is a rock awash at half tide which was located by the topographer. The outer limits of the foul area along shore between signal PAT and the jetty was sketched by the hydrographic party.

Approved and forwarded,  
  
F. G. Engle, Commdg. DISCOVERER.

Respectfully submitted,

  
Thos. B. Reed

STATISTICS SHEET NO. 3

EAST COAST KAUAI, SCALE, 1:5,000 - - - - NAWILIWILI BAY, KAUAI.

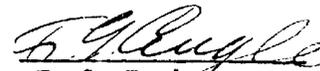
<u>Date, 1927</u>	<u>:</u>	<u>Letter</u>	<u>:</u>	<u>Volume</u>	<u>:</u>	<u>Positions</u>	<u>:</u>	<u>Soundings</u>	<u>:</u>	<u>Miles Stat</u>	<u>:</u>	<u>Vessels</u>		
Feb.	:	18	:	a	:	1	:	185	:	636	:	23.2	:	Stbd. Motorsailer
	:	19	:	b	:	1&2	:	28	:	118	:	3.1	:	" "
Mar.	:	1	:	c	:	2	:	151	:	7 <sup>5</sup> <del>8</del> 4	:	15.8	:	" "
	:	17	:	d	:	2&3	:	48	:	222	:	4.7	:	" "
Apr.	:	23	:	e	:	3	:	93	:	296	:	12.7	:	" "
May	:	11	:	f	:	3	:	21	:	92	:	2.3	:	" "
June	:	13	:	g	:	3	:	40	:	171	:	3.8	:	" "
				Totals	----	566		2289		65.6				

NOTE BY CHIEF OF PARTY.

The present breakwater affords sheltered anchorage for vessels of moderate size and draft and smooth landing for sea planes. The DISCOVERER anchored repeatedly between the breakwater and the bulkhead under construction.

At present the Harbor is a port of call of one of the Inter-Island Steamers. The steamer anchors to the west of Kukii Pt., and moors astern to the red buoy. Freight is lightered to the wooden dock. At times the swells break at the outer end of this dock, at which there is about 5 ft. of water.

Considerable swell makes in through the entrance between the breakwater and Kukii Pt., and the seas have damaged the breakwater so that repair work was necessary and was in progress in September 1927.



F. G. Engle,  
H. & C. Engineer.

January 25, 1928.

Division of Hydrography and Topography:

✓ Division of Charts:

Tide reducers are approved in  
3 volumes of sounding records for

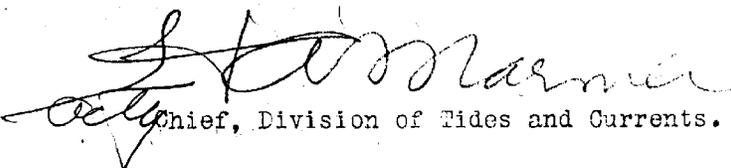
HYDROGRAPHIC SHEET 4702

Locality: KAHAIKAI ISLAND, T. H.

Chief of Party: C. L. Garner, F. G. Eagle, 1927.  
Plane of reference is M L L W  
1.7 ft. on tide staff at Nawiliwili

Condition of records satisfactory except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A.M. or P.M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of each day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.

  
Chief, Division of Tides and Currents.

IN REPLY ADDRESS THE DIRECTOR  
U. S. COAST AND GEODETIC SURVEY  
AND NOT THE SIGNER OF THIS LETTER

AND REFER TO No. 11-DFM

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON

February 21, 1928.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4702

Nawiliwili Bay, T. H.

Surveyed in 1927

Instructions dated November 23, 1926

Chief of Party, F. G. Engle.

Surveyed by T. B. Reed.

Protracted by T. B. R.

Soundings pencilled by J. C. Partington.

Verified and inked by F. B. Kelly.

1. The records conform to the requirements of the General Instructions.
2. The plan and character of development fulfill the requirements of the General Instructions.
3. Crossing lines show fair agreement.
4. No depth curves were drawn in the field.
5. Considerable difficulty was experienced by the verifier in plotting the course of the boat at the ends of sounding lines due to the conflict between the boat sheet and the turns as noted in the records.
6. The limits of the foul area east of  $\odot$  Pat, south of  $\triangle$  Kukii, and west of  $\triangle$  Nin were added by the verifier from notes in the sounding records.
7. The limits of the foul area east of  $\odot$  Nin were also changed due to a different interpretation of the notes. This changed also the sunken rock shown approximately 150 meters N.E. of  $\triangle$  Nin.
8. The offshore junction sheet, H. 4703, has not been inked.
9. Ninety-five fixes were checked and 4 found slightly in error.
10. Field drafting - good.

Report by F. B. Kelly, February, 1928.

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

WASHINGTON February 29, 1928.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4702

Nawiliwili Bay, East Coast of Kauai, Hawaiian Islands

Surveyed in 1927

Instructions dated November 23, 1926 (DISCOVERER)

Chief of Party, F. G. Engle.

Surveyed and protracted by T. B. Reed.

Soundings penciled by J. C. Partington.

Verified and inked by F. B. Kelly.

1. Special instructions for the work were complied with, except for the location of the limits of the reef. This was approximately located by estimating its distance from the inshore ends of the sounding lines.
2. General instructions were complied with, except for sounding between the ends of lines inshore. This caused a great deal of difficulty in plotting as the boat sheet and records were not in accord.
3. The development is adequate.
4. The depth curves may all be drawn or closely estimated except for the one fathom curve which can be drawn only for the inner bay.
5. Minor changes in the sheet were made in depth curves and also in sounding lines where the course was changed between positions.
6. No comparisons were made with adjacent sheets as these have not yet been plotted.
7. Inking - good.

Reviewed by E. R. McCarthy, February, 1928.

Approved:

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Chief, Section of Field Records (Charts)

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Chief, Section of Field Work (H. & T.)

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4702

HYDROGRAPHIC TITLE SHEET

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. 3

REGISTER NO. 4702

C. & G. SURVEY  
L. & A.  
DEC 30 1927  
Acc. No.

State Hawaiian Islands

General locality Kauai Island E. Coast

Locality Nawiliwili Bay, ~~East coast of Kauai.~~

Scale 1:5,000 Date of survey Feb. to June, 1927

Vessel DISCOVERER

Chief of Party F. G. Engle

Surveyed by Thos. B. Reed

Protracted by Thos. B. Reed

Soundings penciled by J. C. Partington

Soundings in ~~Sathons~~ feet

Plane of reference M.L.L.W.

Subdivision of wire dragged areas by

Inked by

Verified by

Instructions dated November 23, 1926

Remarks: Plane of reference, Reading on tide staff 1.63

Applied to chart 4100 thru chart 4111 Wittmann 11/7/55