4303

Form 504

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

State: ~~T.H.~~ Hawaiian Is.

11—5613

DESCRIPTIVE REPORT.

J.

Topographic *Sheet No.* 4303

LOCALITY:

West Coast of Kauai, ~~T.H.~~

Kauai ~ W. Coast

Kekaha to Makaha Pt.

1077

[redacted]

Descriptive Report

to accompany

Topographic Sheet J, Island of Kauai,T.H.

F.G. Engle, Chief of Party. Directors instructions dated Nov,23,1926

EXTENT:

This sheet includes the shore line from Lat.21-58,Long. 159-42 to Lat.22-08,Long.159-44,approximately. It joins with the work of the DISCOVERER 1926 on the south and is continued on sheet H on the north.

GENERAL DESCRIPTION OF COAST:

The greater part of the area covered by this sheet is flat with an approximate elevation of 25 feet. The shores are sandy with occasional coral reefs. This flat area is for the most part arid grazing land covered with sparse grass and algaroba trees. A chain of sand dunes extends from POHILI to about a mile beyond KALOLO. The highest of these are at Pohili Point, the one at POHILI being 98 feet. There is a scattering of shrubbery on the dunes,it becoming thicker as the cliffs are approached.

At the village of Kekaha, the cliffs marking the beginning of the mountainous country,are several miles inshore. These cliffs extend in a NW direction andmeet the shore line at latitude 22-06 approximately. From here on the shores is precipitous,the cliffs oftentimes rising to a height of 1000 feet or more with little or no inclination from the vertical. Numerous ravines,each containing a stream,break up an otherwise impenetrable wall. In many cases the cliffs are back from the water's edge at a distance of from a few meters to several hundred meters. These intermittent areas contain sand or boulder beaches.

SURVEY METODS:

Traverses,supplemented by cuts from control points,were run between triangulation stations. The closures were satisfactory in all cases and were adjusted when necessary.

The field work on this sheet was finished and inked when it was discovered that the triangulation signals MANA,POHILI,KALOLO, and MAKA were incorrect due to a mistaken recovery of MANA and POHILI.. These stations were recovered as described but apparently had been moved. This necessitated a readjustment of the topography. It was foundthat the error in distance between the stations mentioned was slight,accounting for the traverses closing,the error being chiefly normal to the shore. The field sheet having been inked, a new projection was made andthe triangulation plotted correctly. A tracing of the shore line and topographic signals was then made from the field sheet and then transferred to the new projection. This necessitated a slight adjustment but was less than the customary 1/2 of one per cent in distance.

No attempt was made to get form lines or contours inasmuch as the Geological Survey has covered the area with contours which are considered satisfactory.

The following is a table showing differences between plotting of triangulation stations as used in the field and their correct positions:

Station	Lat.	Meters	Long.	Meters	
Mohili	22-03	1600.7	159-47	167.2	
Mohili2	22-03	1593.9	159-47	178.6	
Mana	22-02	224.2	159-47	571.6	
Mana2	22-02	226.7	159-47	567.8	
Kalolo	22-05	482	159-45	694	(used in field)
Kalolo	22-05	478.6	159-45	726.0	(correct)
Maka	22-08	650	159-43	1647	(used in field)
Maka	22-08	641.0	159-43	1711.2	(correct)

OFFLYING DANGERS:

Coral reefs are fairly general but do not extend an appreciable distance offshore. There were no rocks awash in evidence.

LANDMARKS:

Kokole Light---------Lat.-21-58 (1414.8) Long. 159-45 (887.6)
SPOT---------- " 22-07 (1058) " 159-44 (190)
FORK---------- " 22-00 (1772) " 159-47 (85)

SPOT may be identified as two grayish white masses on an otherwise brick red cliff approximately 1000 feet high. These spots are in a vertical line, the upper one being approximately in the center of the cliff and the lower bisecting the remainging distance. They are visible for several miles offshore. This object appears on the sheet as an hyrographic signal of the same name.

FORK is a lone forked tree which shows up well from all directions. It is shown on the sheet as an hydrographic signal of the same name.

PLANE TABLE POSITIONS:

Station:	Lat.	Meters:	Long.	Meters
Tide	22-07	587	159-44:	518

STATISTICS:

Miles of shore line (statute)----------17.5

Respectfully submitted,

George A. Nelson

George A. Nelson
Topographer

Approved & Forwarded

F.G. Engle
H.& G. Engr.

Inspected and found adequate except that the junction with T. 4302 is doubtful.
E. Ellis
Mar. 8, 1928

Form 537a
11—5813

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4303

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. JI

REGISTER NO. 4303

State ~~Territory of~~ Hawaiian Is.

General locality ~~Island of~~ Kauai - W. Coast

Locality ~~West Coast~~ Kekaha to Makaha Pt.

Scale 1-20,000 Date of survey ~~May 10 to 26~~, 1927

Vessel DISCOVERER

Chief of Party F.G. Engle

Surveyed by George A. Nelson

Inked by G.A.N.

Heights in feet above H.W. to ground ~~to tops of trees~~

Contour, Approximate contour, Form line interval feet

Instructions dated Nov. 23, 1926

Remarks:

GPO