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U. S. COAST & GEODETIC SURVEY
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Form 504
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

State: T. Hawaii

11-5613

DESCRIPTIVE REPORT.

Topo Sheet No. A 4683

LOCALITY:

Hawaiian Islands

Laysan Island

1930

CHIEF OF PARTY:

O. W. Swainson, H. & G. Engr.

DECLASSIFICATION BY NOAA
PURSUANT TO DOC SYSTEMATIC REVIEW
GUIDELINES AS DESCRIBED IN SECTION
3.3 (a), EXECUTIVE ORDER 12356

Applied to Compilation of Chart 4102 7/8/40 CRBJ-

DESCRIPTIVE REPORT TO ACCOMPANY
TOPOGRAPHIC SHEET OF LAYSAN ID.,
TERR. OF HAWAII.

Party of Str. PIONEER.

O. W. SWAINSON, CMDG.

Instructions dated February 10, 1930.

Project #55.

GENERAL DESCRIPTION OF COAST

Laysan island is a low, sand island, about 1.7 miles long and one mile wide. On making landfall, appearance is shown on photograph #5, enclosed herewith. In the center of the picture are the two coconut palms, the most prominent objects on the island. There are two palms, about ten meters apart, and an ironwood tree about 40 meters southwest of the palms. Ruins of old houses are still standing and are back of the palms. These ruins and palms are on the west side and mark the only landing place on the island. The coral reef that extends around the island on the west and north sides is broken at this point and small boats may enter. This coral reef extends from 200 meters to 1/3 mile off shore, the outer limits being located by the launch Hydrographic sheet of Laysan Island. These limits, shown in pencil on the Topographic sheet, were transferred from the launch boat sheet. This landing cannot be used when there is a heavy westerly swell.

On the east and south sides of the island there are rocky ledges extending almost unbroken along the beach. These ledges are flat on top and present a vertical face to the sea. Photograph #2, taken southeast of Δ Sud, looking east, shows the ridge of rough rock. While in the background and to the right foreground can be seen the flat topped ledges. Photograph #3, taken southwest of \odot Guan, shows some of the ledge, with seas breaking against it. Photograph #4, taken about half-way between Δ Sud and \odot Lav shows the south end around Sud, which signal can be seen in the picture.

LAND MARKS

The two coconut palms, ironwood tree and ruins of the houses, on the west side, are the only prominent objects on the island.

About 1/4 mile offshore, north of the landing, there is a small, sharp rock, that is bare about 3 feet at high water. This is the highest rock off the west end of the island.

On the east side there is a small, inconspicuous conical mound of guano-- \odot Tur, which is visible from the sea, off the east coast up to about two miles off shore. ///

CHARACTER OF CONTROL USED.

A base line was measured with 100 foot tape from Lat to Nor, both ways, checking out exactly. Angles were measured at Nor, Lat, and Sud between the other two stations, with a 4" theodolite. The north cocoanut palm was cut in from the three stations. The distances between Lat and Sud and Sud and Nor were computed from the triangle. These triangulation stations were then plotted on the sheet, using the distance between the stations and used to control the work.

Tur and Guan were cut in from these three stations and used as additional control.

The projection was not put on the sheet until the field work was completed as the observations for position of Lat (Lat. and Long. observations) had not been completed.

TRAVERSES RUN AND HOW ADJUSTED:

Traverses from Lat to Nor closed with no error. From Lat traverse was run towards Sud until 3 point fix was obtained. Error in rod reading shown by this, and traverse rerun, which checked out without error. 3 point fixes and traverse were used on the east side of the island.

COMPARISON WITH PREVIOUS SURVEYS.

The elevations as shown on the chart are erroneous. The highest point of the island, Δ Nor, is only 35 feet above Mean High Water. The elevations shown at Lat, and the one north and the one southwest of Lat. mark the location of permanent bench marks.

The rocky ledges shown on the chart just north and south of the landing are not visible at present. There are ledges at various places along the west and north sides of the island, that are not shown on the chart.

At the south end of the island there is a rock ledge (shown on chart as sand).

There is no small pond south of main body of water.

The island is not covered by vegetation at present. The areas of vegetation being shown on sheet with symbols for grass, the most of the vegetation is trailing vine. ///

Clifton J. Wanger
Clifton J. Wanger,
Jr. H. & G. Engr.,
U.S.C. & G.S.S. PIONEER.

Approved and forwarded:

O. W. Swainson
O. W. Swainson,
Lieut. Comdr.,
Commanding U.S.C. & G.S.S. PIONEER.

LIST OF SIGNALS

LAYSAN ID.

Signal	Latitude			Longitude			Height	Description
	o	'	m.	o	'	m.	Above MHW	
<hr/>								
<u>TOPO.</u>			(1789)			(355)		
Tur	25	46	57	171	43	1317	9'	Small mound guano, 2x4 post with banner in top.
			(956)			(619)		
Brow	25	46	890	171	43	1053	29'	2x4 post with banner.
			(401)			(586)		
Log	25	46	1445	171	43	1086	18'	" " " "
			(539)			(1225)		
Al	25	46	1307	171	44	447	23'	" " " "
			(684)			(838)		
Gre	25	46	1162	171	44	834	19'	" " " "
			(702)			(688)		
Ve	25	46	1144	171	44	984	10'	Headstone of grave on point North of landing.
			(1132)			(646)		
Tide	25	46	714	171	44	1026		Tide gauge.
			(1257)			(637)		
Flag	25	46	589	171	44	1035	19'	1"x 3"with flag.
			(1709)			(552)		
Bun	25	46	137	171	44	1120		" " "
			(182)			(577)		
End	25	45	1664	171	44	1095	23'	" " "
			(1055)			(748)		
Lav	25	45	791	171	44	924	21'	2x4 post with banner, cairn of stones around base of post.
			(848)			(1607)		
Guan	25	45	998	171	44	65		Small mound guano, 2x4 post with banner in top.
<hr/>								
<u>TRIANG.</u>			(454)			(157)		
Nor	25	46	1392	171	43	1515	35'	2x4 stake driven flush with grnd.
			(1001)			(904)		
Lat	25	46	845	171	44	768	20'	Stand. B.M. in top of 3" brass pipe projects 2'; set in concrete.
(astro. Sta.)			(719)			(465)		
Sud	25	45	1127			1207	25'	2x4 stake driven flush with grnd.
			(1028)			(810)		
Coco	25	46	818	171	44	862	857.7	North cocoanut palm.
<hr/>								
see Field Computations								
Miles of shoreline			-- Outer coast			- 5.1 stat. mi.		
" " "			Pond			- 2.3 " "		
Area of Topographic Sheet						- 2.0 Sq. Stat. mi.		

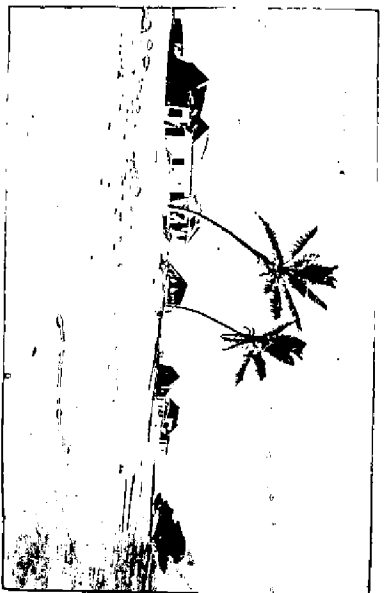


#4

South east
Coast
Laysan Island
I. Hawaii

#2

South Coast



#5

West side of
island. From 2 mi. offshore

#3

East coast

#1

At boat landing

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4683

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 Letter AREGISTER NO. 4683State ~~Terr.~~ of Hawaiian Is.General locality ~~Hawaiian Islands~~Locality Laysan IslandScale 1-10000 Date of survey August, 1930Vessel PIONEERChief of Party O. W. SwainsonSurveyed by C. J. WagnerInked by C. J. WagnerHeights in feet above MHW to ground to tops of treesContour Approximate contour Form line interval -- feetInstructions dated February 10, 1930

Remarks: _____