U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey: Topographic
Field No.: Ph-79
Office No.: T-11116

LOCALITY
State: Hawaii
General Locality: Oahu
Locality: Lualualei

19XX 53
CHIEF OF PARTY
Div of Photogrammetry, Washington, D.C.

LIBRARY & ARCHIVES
DATE: April 26, 1955

DECLASSIFIED
AUTHORITY: Memo, Photogrammetry, 4-3-54
DATE: 4-2-54
BY: [Signature]
DATA RECORD

T-11113 thru T-11116

Project No. (II): Ph-79
Quadrangle Name (IV): LUALUALEI, OAHU, HAWAII

Field Office (II): Chief of Party: L. Reed
Photogrammetric Office (III): Washington, D.C. Officer-in-Charge:

Instructions dated (II) (III):
Copy filed in Division of Photogrammetry (IV)

Method of Compilation (III): Stereo Instruments

Manuscript Scale (III): 1:6,000
Stereoscopic Plotting Instrument Scale (III): 1:4800 (low Alt.:
Scale Factor (III): 1:15,000
(high Altitude)

Date received in Washington Office (IV): Date reported to Nautical Chart Branch (IV):

Applied to Chart No. Date: Date registered (IV):

Publication Scale (IV): 1:6,000
Publication date (IV):

Geographic Datum (III): Old Hawaiian
Vertical Datum (III): M.S.L.

Mean sea level except as follows:
Elevations shown as (2) refer to mean high water
Elevations shown as (3) refer to sounding datum
i.e., mean low water or mean lower low water

Reference Station (III):

Lat.: Long.: Adjusted

Unadjusted

Plane Coordinates (IV):
State: Zone:

Y= X=

Roman numerals indicate whether the item is to be entered by (II) Field Party, (III) Photogrammetric Office,
or (IV) Washington Office.

When entering names of personnel on this record give the surname and initials, not initials only.

Form T-Page 1
Areas contoured by various personnel
(Show name within area)
(II) (III)

Contouring for entire Area by Morton Keller.
DATA RECORD

Field Inspection by (II):  None  Date: 

Planetable contouring by (II):  None  Date: 

Completion Surveys by (II):  Date: 

Mean High Water Location (III) (State date and method of location):  Not Applicable

Projection and Grids ruled by (IV):  Jack Allen  Date: 1-27-53
Projection and Grids checked by (IV):  H. Wolfe  Date: 1-28-53
Control plotted by (III):  I. Jarrett  Date: 2-27-53

Control checked by (III):  S. W. Trow  Date: 2-28-53

Stereoscopic
Control extension by (III):  Morton Keller  Date: 3-3-53

Stereoscopic Instrument compilation (III):
  Planimetry  Morton Keller  Date: 4-24-53
  Contours  Morton Keller  Date: 4-24-53

Manuscript delineated by (III):  Henri Lucas  Date: 5-1-53

Photogrammetric Office Review by (III):  B. J. Colner  Date: 6-26-53

Elevations on Manuscript checked by (II) (III):  Louis J. Reed  Date: 4-27-53
PHOTOGRAPHS (III)

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Tide (III)

Reference Station: Not Applicable
Subordinate Station:
Subordinate Station:

Washington Office Review by (IV): B. J. Colner
Date: 6-16-53

Final Drafting by (IV):
Date:

Drafting verified for reproduction by (IV):
Date:

Proof Edit by (IV):
Date:

Land Area (Sq. Statute Miles) (III):
Shoreline (More than 200 meters to opposite shore) (III):
Shoreline (Less than 200 meters to opposite shore) (III):
Control Leveling - Miles (II):
Number of Triangulation Stations searched for (II):
Number of BMs searched for (II):
Number of Recoverable Photo Stations established (III):
Number of Temporary Photo Hydro Stations established (III):

Remarks:

This work was made on a temporary basis for the Navy. They are being registered as to have a permanent record.

Form T-Page 4
COMPILATION REPORT

Topographic Manuscripts
T-11113, T-11114, T-11115, T-11116

1. Authority:

This compilation has been completed by the U.S. Coast & Geodetic Survey as Project Ph-79. The work has been done for the 14th Naval District in accordance with correspondence initiated by that Headquarters dated 26 Feb 51, serial 2489.

2. Area Covered:

The mapped area is located at Lualualei, Oahu, Territory of Hawaii. The approximate center of the area is at 21°27'N by 158°08'W, and it covers, generally, the Naval Installation and the area to the eastward to the ridge, in accordance with graphic outline of the area as furnished by the 14th Naval District. The entire area requested has not been mapped; portions on the north and south limits of the 100ft contour zone were omitted because of lack of photo cover, and portions near the crest of the ridge were omitted because of cloud and shadow cover.

3. Data and Materials:

All of the following items were available for this compilation and are being returned, except the instrument diapositives and instrument worksheets which are of no further use and are being destroyed.

a. Film: One roll, 6", metrogon, emulsion no. 57-209-4
   Taken 15 January 1952 by U.S. Navy

b. Photographs, Contacts:
   High Alt.: 1/1 thru 3/1, and 1/2 thru 5/2
   Low Alt.: 1/1 " 12/1, 1/2 thru 14/2, 1/3 thru 17/3,
   1/4 " 12/4, 1/5 " 11/5, and 1/6 thru 5/6.

c. Photographs, Glass Diapositives:
   High Alt: 1/1, 2/1, and 3/1
   Low Alt.: 2/2-9/2, 5/3-12/3, 2/4-10/4, and 2/5-7/5.

d. Photo-Indexes: Photographic copies of stapled mosaics, one copy of high altitude and two copies of low.

e. Control Station Identification Cards: 14 with attached Position of Substitute Station computation cards.

f. Field Books: Three, as received.

g. Field Computations: One set, unbound, as received.

h. Control Computation Sheets: Five, form M-2388-12
3. Data and Materials: Contd
   / 1. Layout Sketch: Two copies, 14th Naval District, Public
      Works Dep, Topographic Map, Lau\u00ealei, Oahu, T.H.,
      1:6000 scale, Outline of Aerial Survey.
   /  
   j. Manuscripts: Four, vinylite, with polyconic projection
      and U.T.M. grid.
   k. Worksheets: Eight, vinylite, with instrument delineation
      work in colored pencil.

4. Method:

   All compilation work was performed on the Stereoplanigraph,
   model C-5, No. 61639, located in the Division of Photogrammetry,
   Commerce Building, Washington, D.C. The general plan followed
   was to contour the 5ft and 10ft interval areas with the low
   altitude photography, and to work the balance with the high
   altitude photography. Accordingly, the project was started by
   ordering glass plate diapositives of the photographs to be
   used, by ruling projections and grids on vinylite manuscripts
   on the Reading Ruling machine, and by plotting and checking
   control on the manuscripts. Instrument work began on 11 Feb
   1953 with control being extended thruout every model of the
   low altitude photography(Para 3c), directly on the manuscripts.
   When this was completed, each model was reoriented in the
   instrument and all culture and contours delineated on separate
   vinylite worksheets to which control had been transferred
   from the manuscripts. The two high altitude models were then
   delineated, and data on the individual worksheets were trans-
   ferred to the manuscripts by matching similar control points
   on each. This phase was completed and the manuscripts forwarded
   for reproduction 30 April 53.

5. Results:

   All cultural and topographic data have been compiled on
   the four manuscripts, using, for the most part, colors and
   symbols in standard use for USG&GS compilations. Permanent
   plastic inks were used. In a few cases, symbols have been
   developed to best show features, the exact nature of which,
   was uncertain to the instrument operator. Three separate
   classifications for woods cover have been used; Timber(T),
   Scrub(S), and, Timber and Scrub mixed (T&S). Contours in
   certain heavily wooded areas have been shown dashed to
   indicate questionable accuracy. Photograph centers, with numbers,
   and secondary control established by the control extension
   procedure, are inked in permanent plastic ink on the reverse
   sides of the manuscripts for convenience. The secondary
   points are identified on a set of contact pictures with
   descriptions written on the reverse sides. Both horizontal
   and vertical control were adequate for this project. One sub-
   station (9-A) was not positively identified and was not used
   as a part of the control for this compilation.
6. Recommendations:

It is recommended that a thorough field check be applied to this compilation to verify or correct doubtful contours and details of questionable identity. Otherwise, these maps are considered to be accurate within the limits specified by National Standards of map accuracy.

Louis Reed
Chief
Stereoscopic Mapping Branch
Photogrammetric Engineer

Partial Redrafting on Vinylite

Anita P. Berry - T-11113 6/5/53

Martha C. Webber - T-11115 6/8/53
61. **General Statement.**—The specifications for this project were contained in correspondence initiated by the 14th Naval District dated February 28, 1951. The entire requested area was not mapped because of lack of photographic coverage and the obscuring of detail by clouds and shadows. An ozalid was provided by the Navy delineating the areas to be mapped at 5 ft., 10 ft., 20 ft., 50 ft., and 100 ft. contour interval. The Navy also provided the photography and control, both horizontal and vertical. The bridging and compilation were done with the Zeiss Stereoplanigraph.

66. **Adequacy of Results.**—Contours in heavily wooded and brush covered areas are of questionable accuracy because the stereoscopic instrument operator was not able to see the ground; these contours are shown with dash lines and their accuracy can only be determined by a field test. Except for the dash line contours, the maps are believed to conform to the usual standards of accuracy, that is, 90% of well-defined details are within 1/50 inch of correct geographic position and 90% of the elevations interpolated from the maps will be correct within 1/2 contour interval. (exclusive of dash contours). This estimate of accuracy is made without benefit of field test. A field check has been made since the review.

Reviewed by: B. J. Colmer

APPROVED:

Chief, Review Branch,
Div. of Photogrammetry

A.D.C.

C.C.L. 20 Dec 1954
Approved by:

S. V. Griffin
Chief, Review Branch

M. R. MacKenzie
Chief, Nautical Chart Branch, Division of Charts

May J. Mitchell
Chief, Division of Photogrammetry

Earl O. Hendron
Chief, Division of Coastal Surveys
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<th>On Chart</th>
<th>Previous Survey</th>
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CHECKED BY: _______________________________    DATE: _______________________________
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</table>
PUBLIC WORKS OFFICE
COMMANDANT 14TH NAVAL DISTRICT
Navy No. 128 c/o F. P. O.
San Francisco, California
80; DB-350: jw
J12

From: District Public Works Officer, Fourteenth Naval District
To: Director, U. S. Coast and Geodetic Survey, Department of
Commerce, Washington 25, D. C.

Subj: Aerial Survey, Naval Ammunition Depot and Naval Radio Station,
Lualualei, Oahu, T. H. (PH-79)

Ref: (a) DIR USCGEO SURV 1tr No. 78-1al of 2 Jun 1954
(b) DFWO 1/1ND 1tr 80;DB-350 J12 Ser 5289 of 30 Jun 1954

Encl: (1) 3 prints USCG&GS Topographic Maps T-11113, T-11114 and
T-11115, Lualualei, Oahu, T. H.

1. Reference (a) requested information on the results of any field surveys
made which would be of assistance in determining the accuracy of the
topographic maps. Reference (b) advised that certain survey work was
being planned in Lualualei, and that data obtained from the surveys would
be furnished your office.

2. Revisions in the work schedule caused by changes in priority of work
items have resulted in the above surveys being completed at a much later
date than was originally expected. The survey work performed, which could
be utilized as a check on the topographic maps available, consisted mainly
of a few traverse lines along which profiles were run. These traverse
lines have been plotted upon the prints forwarded as enclosure (1),
together with elevations obtained at specific points. While these profile
elevations were obtained to the nearest 0.1 foot, they have been shown on
the enclosed prints only to the nearest foot to facilitate comparison.

3. The cooperation which you have given in this matter is greatly
appreciated and it is hoped that the field information being furnished
will prove to be of some assistance to you.

Copy to:
CO NAD Oahu
OIC NRS Lualualei

W. J. WILLIAMS
By direction