

6745

ORIGINAL

CONFIDENTIAL

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Form 504 Rev. April 1935	
DEPARTMENT OF COMMERCE U. S. COAST AND GEODETIC SURVEY	
DESCRIPTIVE REPORT	
Topographic Hydrographic	Field No. "A" T6745 Sheet No.
U. S. COAST & GEODETIC SURVEY LIBRARY AND ARCHIVES MAR 3 1941 Acc. No.	
State	ALASKA
LOCALITY	
East Portion Chuginadak Island	
Islands of the Four Mountains	
Aleutian Islands, Alaska	
1940	
CHIEF OF PARTY L. C. WILDER, Commanding Officer, M.V. "E. LESTER JONES"	

U. S. GOVERNMENT PRINTING OFFICE 102221

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

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY

REG. NO.

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. A

T6745

REGISTER NO.

T 6745

State ~~ALASKA~~ Aleutian Islands

General locality ISLANDS OF THE FOUR MTS., ALEUTIAN ISLANDS.

Locality (Eastern portion) Chuginadak Island

Scale 1:20,000 Date of survey May - July, 1940

Vessel Motor Vessel "E. LESTER JONES"

Chief of party L. C. WILDER

Surveyed by R. C. BOLSTAD

Inked by R. C. BOLSTAD

Heights in feet above M.H.W. to ground ~~text to ground~~

Contour, Approximate ~~contour~~ Form line interval 100 feet

Instructions dated February 3, 1938

Remarks:

DESCRIPTIVE REPORT

to accompany

TOPOGRAPHIC SHEET, FIELD LETTER "A"

REGISTER NO.

East Portion Chuginadak Island

Aleutian Islands, Alaska

AUTHORITY:

This survey was accomplished in accordance with the Director's original instructions for project HT-218 dated February 3, 1938.

LIMITS:

The survey includes the eastern portion of Chuginadak Island, including Corwin Rock, with all area lying to the eastward of an approximate boundary defined by meridian $169^{\circ} 49'$.

CONTROL:

The control consists of 1938 triangulation by the Ship PIONEER, supplemented by 1940 triangulation by the M.V. "E. LESTER JONES", field positions computed on the Unalaska 1901 Astronomic (partially adjusted) datum.

Geographic positions of two of the 1938 stations were found to be in error (See paragraph DISCREPANCIES).

METHODS:

The work was conducted, at the start, from a shore camp at Concord Point by one officer and four men using a dory powered by an outboard motor. The camp was later abandoned as impractical due to long runs, strong currents and tide rips, and adverse weather conditions. Thereafter the party operated from the Motor Vessel with reduced personnel (1 officer and 3 men).

The usual plane table methods were employed. When feasible the table was set up at triangulation stations and cuts obtained to all off-lying rocks and previously established hydrographic and topographic stations; plane table traverses were then run to the adjacent control stations without appreciable errors. In most cases all traverses were run and closed or adjusted in advance of rodding in topographic detail.

The two mile traverse between triangulation stations INA and ART ^{52-48.5'} _{169-48.3'} was closed within 6 meters; the traverse was adjusted prior to rodding in detail. ✓

The traverse between triangulation stations INA and topographic station WES (S.W.) produced no scaleable error. Topographic station WES was previously located by a taped traverse from triangulation station CONCORD. ✓

Along the south shore of Concord Point all topographic stations between and including WES to See were located by intersecting plane-table cuts obtained from the top of the bluff at set-up stations (small flags) established by taped traverses from triangulation station CONCORD. This method was necessary as the usual shoreline traverse could not be conducted due to the sheer bluff and inadequate set-up locations. The 600 meters of inaccessible shoreline to the east of station WES up to the next point (165 ft. elevation) was sketched in by the topographer; a mid-point was established by sextant cuts to aid in establishing the general trend of the shoreline. ✓

^{52-48.2'} _{169-40.5'} The three mile planetable traverse between triangulation station ROOK and topo station See failed to close by 12 meters. The cut from ROOK failed to pass through the taped traverse position of See by ^{52-48.8'} _{169-42.0'} about 6 meters; investigation disclosed an error of ten meters in taping. The error was corrected and the traverse adjusted. ✓

The two mile traverse between triangulation stations ROOK and TIT ON 5 FT. ROCK was adjusted after closing within 5 meters. ✓

All other traverses conducted on this sheet resulted in negligible closures which were practically unmeasurable at the scale on which this survey was conducted. ✓

All topographic detail has been carefully rodded in with particular emphasis on off-lying rocks which detail would be especially important at a future date when aerial surveys are conducted. ✓

DESCRIPTION OF TOPOGRAPHIC FEATURES:

The area consists of rugged terrain with mountainous Volcanic peaks (snow capped until August) rising from the central portion with irregular valleys and ridges extending to the rocky bluff line bounding the boulder strewn shore. At the lower elevations the vegetation consists of tundra (long thick grass), with barren rock and lava ash at the higher altitudes. ✓

On both the north and south sides of the point inshore from triangulation station TIT ON 5 FT. ROCK ^{52-51.1'} _{169-44.0'} there are several areas where steam issues from the bluff side.

The shoreline is bounded by numerous large boulders and off-lying rocks with extensive kelp beds in the shoal water areas. Due to the strong currents the kelp is not always visible.

^{52°-53.7, 169°-41.7'}
Corwin Rock, although appearing as a single island, really consists of two islands separated by a narrow waterway. The site of the triangulation station is the highest part being 56 ft. above M.H.H.W. while the westerly island is about 35 ft. high. Both islands are partially covered by thick grass which conceals many of the nests of the numerous birds inhabiting the islands.

FORM LINES:

With the exception of the central area, of the high peaks, nearly all the form lines were drawn at the planetable site. In the central area the peaks were usually covered by cloud formations so that although many of the elevations to the peaks were obtained by planetable it was necessary to supplement these by sextant cuts from the Vessel. A fix was taken at the beginning and end of a series of cuts and the cuts were plotted to allow for the drift. Good intersections and a close agreement in elevations were obtained.

Elevations have been shown of many of the most prominent off-lying rocks. They have been carefully located and can be used in future surveys (including aerial surveys).

MAGNETIC MERIDIANS:

Magnetic observations were made with declinoire at three triangulation stations. At station INA declinoire No. 172 was used. This declinoire requires a correction of $(-)^{1^{\circ} 06'}$ to be applied to the meridian as inked on this sheet in order to produce the magnetic meridian. The magnetic meridian was inked by a dashed red line in place of the customary full line as the declinoire acted very sluggish and when disturbed the needle failed to come back to the zero mark. The maximum discrepancy was about one-half a degree. The mean of several readings were taken for the magnetic meridian as shown on this sheet.

Declinoire No. 2 (no other marks) was used for obtaining the magnetic meridian at triangulation stations COR and ALL. This instrument was temporarily borrowed from the Ship PIONEER and has since been returned to them with a request for the index correction. An index correction of $\frac{1}{2}^{\circ}$ (to be filled in upon receipt of data from PIONEER) should be applied to magnetic meridians obtained on this sheet with declinoire No. 2.

→ See report on Declinoire No 2 attached

JUNCTIONS:

The necessary junctions with the adjoining topographic sheet (Field letter "B", by ship EXPLORER) have been made. Inasmuch as these junctions are made at control stations there were no discrepancies.

NAMES:

There are only three geographic names on this sheet; they were taken from U.S.C.&G. Survey chart No. 8302. Inquiry at Dutch Harbor and Unalaska disclosed these names to be well established and in local usage.

COMPARISONS:

At Lat. $52^{\circ} - 47'8$, Long. $169^{\circ} - 45'5$ is shown a breaker which was noted by the topographic party from the dory while passing enroute back to the ship; the position is estimated only. The area broke under a heavy to moderate swell; it was noted only once. At no other time were breakers noted at this site. The launch hydrographic party of the Ship EXPLORER state a minimum depth of 4 fms. was obtained.

The breaker area shown on this sheet to the southwest of Corwin Rock was located by four good planetable cuts. A tracing from the Explorer's launch hydrographic sheet shows a sunken rock at this site. No other rocks or breakers were noted in this locality; however the kelp extends well out here and there are current swirls and tide rips, indicative of foul area.

DISCREPANCIES:

The triangulation station positions of DOG and GAM, 1938, were found to be in error. The triangulation position falls 200 meters out in the water and GAM 25 meters in the water. The topographic control is unquestionable and the two stations are definitely in error. The topographer was assigned ^{to the Ship PIONEER during 1938 when these stations were established} and is acquainted with the situation. These stations together with BAT, FUN, EGG and GAG were unmarked whitewashes observed from only two triangulation stations (without check) with weak intersections. The position of DOG was in all probability computed from two cuts to different whitewashes. Stations were originally established as control for hydrography and were therefore unmarked. The 1938 whitewashes were faint (except DOG and GAM could not be found); they were re-whitewashed for hydrographic signals.

(As DOG & GAM are not shown on this sheet)

RECOVERABLE TOPOGRAPHIC STATIONS:

A total of 11 recoverable topographic stations were described on form 524 and are submitted with this report; eight of these stations are marked with the standard hydrographic station marks and the balance, of three, are conspicuous natural objects. In addition to these there are numerous off-lying rocks which have been carefully located and can be used for future surveys.

^{52°-52.9, 169°-45.0'}
Topographic station WAT is the center of a conspicuous waterfall 243 ft. high.

LANDMARKS:

The scale at which the present chart of this area is published does not suggest recommendations of any landmarks. West Peak is probably the most conspicuous (from the south) of the peaks on this portion of Chuginadak Island. However, as all the high peaks are nearly always covered by clouds it would be of little value as a landmark. ✓

BLACK PEAK (1525') at the south side of the island is conspicuous from the southeast and southwest. It was used by both the Ships SURVEYOR and PIONEER for control of offshore visual hydrography. ✓ It is not usually obscured by cloud formations which hide the higher peaks. This object will be included on the list of Landmarks For Charts form 567 to be submitted at a later date. Attached.

The slide area shown on the east side of the island, although exhibiting some degree of prominence in the inshore area, is not overly conspicuous offshore due to its blending in somewhat with the adjacent terrain. ✓

STATISTICS:

The following statistics pertain to this sheet:

Statute miles of shoreline	42
Area in square statute miles	38
Number of hydrographic signals	72
Number of elevations determined	206
Number of sunken rocks located	
(rodded in)	12
Number of rocks awash located	
(rodded in)	102

FUTURE SURVEYS:

Adequate recoverable control stations have been established for any future surveys in this area. It is understood aerial photographs are to be taken of the Aleutians at some future date. Had photographs been available to the topographer prior to conducting this survey a decided saving in time would have resulted together with greater accuracy of complicated and inaccessible detail, and form lines. Aerial photographs would further assist reconnaissance for establishment of control stations. ✓

PROCESSING OFFICE:

This topographic sheet has been completely inked. It is only necessary for the Processing Office to make a further (see paragraph COMPARISONS) comparison with the launch hydrographic sheets; it should be kept in mind that kelp is frequently towed under by the strong currents in this area and therefore is not always visible. ✓

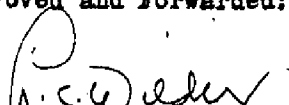
Kelp limits as shown on this topographic sheet were estimated (rod shots taken infrequently) by the topographer both from the planetable set-up points, and observations at other times from the dory while enroute to adjacent localities.

Respectfully Submitted:



ROSWELL C. BOLSTAD,
Jr. H. & G. Engr.,
Coast and Geodetic Survey.

Approved and Forwarded:



L. C. WILDER,
H. & G. Engr.,
Comdg., M.V. "E. LESTER JONES".

REPORT

ON

STANDARDIZATION OF DECLINATOIRES

Season 1940

H.V. "E. LESTER JONES"

L. C. WILDER, COMMANDING

During the field season 1940, while working on projects HT-215 and HT-247, the two declinatoires aboard this vessel were standardized in accordance with instructions.

The spring standardization was made at the Sitka Magnetic Observatory, on April 15, 1940. The azimuth of the mark was obtained from the magnetic observer there. Complete computations for the error of the two instruments were made. It will be noted that declinoire No. 172 was slightly sluggish.

The fall standardization was made at the newly established station at Lincoln Park, Seattle, Washington, the line from the station to Alki Point Light being used for reference. No magnetic values for the station are known, therefore the computations are being submitted unfinished. It will be noted that declinoire No. 172 was again found sluggish.

Four readings were taken for the standardization of each instrument. The angles made with the true azimuth line were then scaled with a steel protractor, and the four values meaned. The resulting mean angle was applied to the true azimuth of the mark in each case to determine the value of magnetic north by declinoire. The true variation was then applied to this value to determine the error of the instrument concerned.

Declinoire No. 172, which is obviously out of order, is being returned to the office and requisition for replacement has been made.

Following are the computations for each standardization:

(1). SITKA MAGNETIC OBSERVATORY--April 15, 1940.

Declination	29° - 57' E.
Diurnal Variation	<u>+02'</u>
Actual Variation	29° - 59' E.

	Declinatoire C.L. Berger & Sons(A) (10:25 a.m.)	Declinatoire # 172 (10:30 a.m.)
Azimuth of mark	172° - 36' True	172° - 36' True
Mn. angle measured (4)	142° - 39'	141° - 31'
Magnetic North by declinatoire	29° - 57'	31° - 05'
Actual Variation	29° - 59'	29° - 59'
Declinatoire Error	-02'	+1° - 06'

(2). LINCOLN PARK, SEATTLE, WASHINGTON--October 12, 1940.

Abandoned - not suitable for standardization

Declination

Diurnal Variation

Actual Variation

	Declinatoire C.L. Berger & Sons(A) (1:08 p.m.)	Declinatoire # 172 (1:04 p.m.)
Azimuth of Mark	342° - 37' True	342° - 37' True
Mn. Angle measured (4)	40° - 42'	39° - 53'
Magnetic North by declinatoire	23° - 19'	22° - 30'
Actual Variation		
Declinatoire Error		

The values which are unknown are to be filled in by the Office and computations completed.

Respectfully Submitted:

John C. Ellerbee
J. C. ELLERBEE,
Jr. H. & G. Engr.
U. S. Coast and Geodetic Survey

Forwarded; Approved:

L. C. WILDER,
H. & G. E., Ch. of Pty.,
Comdg., M.V. "E. LESTER JONES".

Rep.
Original with
Data Rept.
T-6745

REPORT
on
STANDARDIZATION OF DECLINATOIRE #2

Season 1940

M.V. "E. LESTER JONES"

L. C. WILDER, Commanding

During the field season 1940, it was found necessary to borrow a declinatoire from the ship Pioneer for use by one of the topographic parties on this vessel. This declinatoire, called No. 2, was subsequently transferred to this party by the Commanding Officer of the PIONEER. It was used only on topographic sheet Register No. T⁶⁷⁴⁵

Standardization in accordance with the instructions was delayed until after the instrument was transferred to this party, therefore the resulting data was not included in the report on standardization of the other two declinatoires now on inventory.

Upon inquiry, this party was informed that no data was available for the usual spring standardization of this instrument. The fall standardization made at Lincoln Park, Seattle, Washington, is as follows; (November 2, 1940): *station not suitable for standardization*

Declination

Diurnal Variation

Actual Variation

Declinatoire # 2
12:37½ P.M.

Azimuth of mark

342° 37' true

Mn. Angle measured (4)

40° 58'

Magnetic North by declinatoire

23° 35'

Actual Variation

Declinatoire error

Alki Point Light was used as the mark, and four readings of the declinatoire were taken. The values of the declination and variation at this standard station are unknown, and are left blank, the computations to be completed by the Office.

Respectfully submitted,

John C. Ellerbe
JOHN C. ELLERBE,
Jr. H. & G. Engr.,
U. S. Coast and Geodetic Survey.

Approved and forwarded:

L. C. WILDER, H.&G.E.,
Chief of Party, C.&G. Survey,
Comdg., M.V. "E. LESTER JONES"

Forwarded
Sealman
Officer in Charge,
Seattle Processing Office

Remarks

Decisions

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5	For title	525695
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GEOGRAPHIC NAMES

Survey No. **T6745**

Name on Survey	On Chart No.		On previous survey No.		On U. S. quadrangle Maps		From local information		On local Maps		P. O. Guide or Map		Rand McNally Atlas		U. S. Light List	
	A,	B,	C,	D,	E,	F,	G,	H,	K,							
<u>Chuginadak Island</u>																1
<u>Concord Point</u>																2
<u>Corwin Rock</u>																3
																4
<u>Islands of Four</u> <u>Known facts</u>																5
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Names underlined in red approved
by L. Heck on 6/18/42

DESCRIPTIVE REPORT
to accompany
TOPOGRAPHIC SHEET, FIELD LETTER "A"
REGISTER NO.

East Portion Chuginadak Island
Islands of the Four Mountains
Aleutian Islands, Alaska

Scale 1:20,000

U.S.C.&G.S. Motor Vessel "E. LESTER JONES"

L. C. WILDER, Commanding

Project HT-218

1940

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

TO BE CHARTED } STRIKE OUT ONE
TIG-BE-CHARTED

Seattle, Washington

October 11th, 1940

I recommend that the following objects which have ~~(been)~~ been inspected from seaward to determine their value as landmarks, be charted on ~~(attached form)~~ the charts/indicated.

The positions given have been checked after listing.

L. C. WILDER,
Chief of Party.

[illegible]

This form shall be prepared in accordance with 1934 Field Memorandum, "LANDMARKS FOR CHARTS." The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
~~PHOTOSTAT OF~~

~~No. H~~

No. T

T6745

(Confidential)

received Mar. 3, 1941
registered Mar. 3, 1941
verified
reviewed
approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

ROUTE		Initial	Attention called to
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25	✓	<i>TH</i>	Pages 2 to 5
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RETURN TO

82	T. B. Reed
----	------------

✓ *TBR*

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEYAIDS TO NAVIGATION
LAND MARKS FOR CHARTS

STRIKE OUT ONE
} ~~TO BE CHARTED~~
~~TO BE DELETED~~

Seattle, Washington October 11 1940

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.

L. C. WILDER.
Chief of Party.

GENERAL LOCALITY	NAME AND DESCRIPTION	POSITION				METHOD OF LOCATION	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED	
		LATITUDE		LONGITUDE								DATUM
		°	'	D. M. METERS	°							
West half of Omiginadak Id. Herbert Id. West 2/3 Unaska Id.												
There are no non-floating aids to navigation in this area.												
No floating aids to navigation being in this area, no objects for "fixes" are herein defined for use by Lighthouse Service.												
Sheet 76745												

This form shall be prepared in accordance with 1934 Field Memorandum, "LANDMARKS FOR CHARTS." The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

CONFIDENTIAL

DIVISION OF CHARTS

SURVEYS BRANCH

REVIEW OF TOPOGRAPHIC SURVEY

REGISTRY NO. 6745

Field No. A

Aleutian Islands, Islands of Four Mountains,
Chuginadak Island (Eastern Portion)
Surveyed May - July 1940; Scale 1:20,000
Instructions dated February 3, 1938

Plane Table Survey

Aluminum Mounted

Chief of Party - L. C. Wilder
Surveyed by - R. C. Bolstad
Inked by - R. C. Bolstad
Reviewed by - R. H. Carstens
Inspected by - H. R. Edmonston, February 19, 1943

1. Adjoining Surveys

The present survey joins T-6746 (1940) on the west.

2. Comparison with Prior Surveys

There are no prior surveys of the area by this Bureau.

3. Comparison with Chart 8802 (latest print date 1-18-43)

a. Topography

The charted topography originates with the present survey and, because of the small scale of the chart, only a general outline of the shore line is shown.

b. Aids to Navigation

There are no charted aids to navigation within the limits of the present survey.

c. Magnetic Meridian

The survey determination of the magnetic meridian is in satisfactory agreement with the charted value.

4. Condition of Survey

Satisfactory.

5. Compliance with Instructions for the Project

Satisfactory.

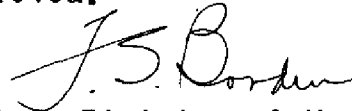
6. Superseded Surveys

None.

Examined and approved:



Chief, Surveys Branch



Chief, Division of Charts



Chief, Section of Hydrography



Chief, Division of
Coastal Surveys