

4955



4955



Form 504 Rev. April 1936	
DEPARTMENT OF COMMERCE U. S. COAST AND GEODETIC SURVEY	
DESCRIPTIVE REPORT	
Topographic <del>Hydrographic</del>	Sheet No. Y-37
State <del>Alaska</del>	
LOCALITY	
Aleutian Islands	
Unalaska Island--West End	
1937-1938	
CHIEF OF PARTY	
A. M. Sobieralski	

Applied to chart comp. 9020. June 25, 1940. L.A.M.  
" " " 8802 Nov. " 2 M.A.  
" " " 8861 Jan 8, 1941 J.W.  
" " (new) chart. 9009 Feb. 28, 1942 J.P.B.

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. Y-37

REGISTER NO.

**T4955**  
(Confidential)

State ~~Alaska~~

General locality Aleutian Islands

Locality Unalaska Island--West End.

Scale 1:40,000 Date of survey July, Aug., Sept., 1938

Vessel U.S.C. & G.S.S. SURVEYOR

Chief of party A. M. Sobieralski

Surveyed by Ship's Officers

Inked by J. C. Tison, Jr.

Heights in feet above M.H.W. to ground ~~to top of rock~~

~~Contours, 100 feet interval~~ Form line interval 100 feet

Instructions dated February 3, 1938

Remarks: Computations and form lines by J. C. Tison, Jr.

DESCRIPTIVE REPORT

to accompany

TOPOGRAPHIC SHEET FIELD NO. Y-37

Unalaska Island, Alaska --- Western End

U.S.C. & G.S.S. SURVEYOR -- A. M. Sobieralski, Comdg.

Project HT-176 --- Seasons 1937-38

Scale 1:40,000

### INSTRUCTIONS

This survey was made in accordance with the Director's Instructions for Project HT-176, dated February 3, 1938.

### EXTENT OF SURVEY

This survey consists entirely of form line delineation of interior areas of Unalaska Island. It covers that part of the Island lying west of Longitude  $167^{\circ} 19'$  W. and shows form lines for all inland areas not included on large scale topographic surveys of the shoreline.

In many instances there is considerable overlap between this and previous surveys in order to revise form line detail already submitted.

### GENERAL DESCRIPTIONS

From Chernofski Harbor southwestward, the land area of Unalaska Island is characterized by grass covered hills having smooth slopes, which are interspersed with small, clear cut valleys or ravines. The hills are not distinctive, and the general appearance from offshore is that of rolling grazing country; the features more than 1000 ft. high standing out to form the sky line. Of these, Lone Peak, near the western end of the Island, is the most prominent, and constitutes a conspicuous landmark. East of triangulation station TAX 1936 the hills are more jumbled and as a consequence the topography appears rougher from offshore.

Stream beds are not at all prominent from offshore because of the high ground adjacent to the shoreline. Not until they approach a 500 ft. elevation do the deep-cut ravines marking their courses

become visible. The existence of many small lakes in the area is probable, but no opportunity was afforded to substantiate this supposition or to indicate approximate locations.

The sharp peaks south of Cape Aspid are conspicuous in clear weather and the crater rimmed by them is easily identifiable from the vicinity of Unnak Pass and Chernofski Harbor. The sides of the crater are devoid of vegetation and show much red and yellow marking. It is probable that a lake exists in the crater bowl, for the opening in the west wall appears to be partially blocked by the 596 ft. hill located at its entrance.

#### SURVEY METHODS

Before undertaking field work, all available form lines of the area, as previously submitted on large scale topographic sheets, were reduced and transferred to this sheet in pencil. An overlay tracing was then made and used as a work sheet in the field.

All field work was accomplished from the bridge of the SURVEYOR from offshore positions determined by sextant angles on shore stations. Triangulation signals were available in most cases for fixes. While two officers observed angles for position and one officer plotted, three officers observed sextant cuts and vertical angles on identifiable land features. All observations were recorded as made, to be later replotted and used in computing elevations.

In Bering Sea observations were made at a distance offshore of from one to two miles while cruising from Cape Aspid southwestward to triangulation station TAX 1936 and return. Numerous observations

were also made from anchorage in Chernofski Harbor. On the Pacific side, observations were made while cruising from triangulation station EMERALD to Cape Aiak, at a distance offshore of from one to three miles.

#### CONTROL

Second and third order triangulation stations established in 1935 and 1936, and topographic stations located on various sheets covering the shoreline of this part of the Island furnished control for this survey.

#### ELEVATIONS

All elevations as inked on this sheet were determined by means of sextant angles taken from offshore positions. Several elevations transferred from adjoining surveys during office adjustment.

Locations are from at least three, and often as many as six, intersecting cuts, while each figure is a mean value of at least three computed elevations for the same point. Only those elevations within 10 ft. of the mean were used in arriving at the accepted value.

During the course of this survey many of the previously determined elevations adjacent to the shoreline were verified.

#### FORM LINES

All form lines determined from this survey are inked in red to a junction with those from previous and contemporary surveys. The latter are shown on the sheet in pencil as reduced and transferred from available sources. Pencil ed information inked or removed.

In areas where revision of existing form lines was necessary, those as inked on this sheet are intended to supersede any which have been submitted previously.

Absence of elevations will be noted in the inland areas to north of "Surveyor Bay" and north of triangulation stations FIND 1936 and MAP 1936. It was impossible to identify features in these areas from offshore, and while the form lines as shown are necessarily more sketchy here than elsewhere on the sheet, they are believed to be adequate from the standpoint of the navigator. An attempt was made to at least indicate the rounded hills which exist in these localities.

Those short sections of form lines inked to north of triangulation station HOPE 1936 were drawn to delineate a small area not covered by previous surveys. They are theoretical and were not verified by cuts or elevations from offshore during the course of this survey. They do conform to the general appearance of the land, however, and were drawn by an officer familiar with that part of Unalaska Island.

This area had already been adjusted in the office. As field version did not differ materially, office adjustment is retained and field form lines removed to avoid further adjustment.

#### TOPOGRAPHIC SYMBOLS

The entire area form lined on this sheet is grass covered except for occasional inconspicuous rock outcroppings at the higher elevations and on steep slopes. The grass symbol is omitted from the sheet.

Those peaks south of Cape Aspid are generally bare of vegetation above the 1500 ft. elevation.

The probable drainage system is indicated by appropriate symbol, and was sketched from offshore. The location of stream mouths is from previous surveys.



The shoreline inked on this sheet with a fine black line was transferred from various large scale surveys by means of the projector.

JUNCTION WITH PREVIOUS AND CONTEMPORARY SURVEYS See par. 1, review.

1. This sheet joins topographic sheet Field No. UL-36 on the south, from Cape Aiak westward to Longitude  $167^{\circ} 39.65'$ . A junction of form lines was effected along the irregular broken pencil line shown on this sheet. Any revision of form lines from Sheet UL-36 was of a minor nature, consisting generally in deepening of valleys and stream beds as they extend inland from the shoreline. It is recommended that all form lines on Sheet UL-36 extending beyond a junction with this sheet be rejected.

2. On the south, westward from Longitude  $167^{\circ} 39.65'$ , and on the west, northward to Latitude  $53^{\circ} 19.50'$ , this sheet joins topographic sheet Field No. UH-36. A junction of form lines was effected along the irregular broken pencil line shown on this sheet. A revision of form lines from Sheet UH-36 was necessary in the area immediately southeast of triangulation station LONE PEAK 1936, the need for such revision being readily apparant from offshore. The 950' elevation shown on Sheet UH-36 in Lat.  $53^{\circ} 16.25'$ , Long.  $167^{\circ} 39.82'$  was not checked by this survey, being too high by about 40 ft. It is recommended that the 912' elevation shown on this sheet be substituted instead. Many elevations on Sheet UH-36 were verified during the course of this survey. All form lines on Sheet UH-36 which extend beyond a junction with this sheet should be disregarded.

3. On the west and north, from triangulation station LONE PEAK 1936 eastward to Longitude  $167^{\circ} 33.90'$ , this sheet joins topographic sheet T-4937. A junction was effected along the irregular broken pencil line shown on this sheet, and considerable revision of form lines as submitted on Sheet T-4937 was necessary, particularly in area between stations LONE PEAK and FAST. The need for such revision was readily apparent from offshore, and it is recommended that all lines from sheet T-4937 which extend beyond a junction with this sheet be rejected. Many elevations on sheet T-4937 were checked during the course of this survey.

This sheet also joins sheet T-4937 on the north between Longitudes  $167^{\circ} 26.00'$  W. and  $167^{\circ} 30.00'$  W. Considerable form line revision in this area was also necessary, and those from sheet T-4937 which extend beyond a junction with this sheet should be rejected. The 1018' elevation on Sheet T-4937 in Latitude  $53^{\circ} 25.19'$  N. and Longitude  $167^{\circ} 28.02'$  W. could not be checked during the course of this survey. It is probably misplaced on sheet T-4937 and its rejection is recommended. Many other elevations in the vicinity were verified.

4. East of Longitude  $167^{\circ} 26'$  W. and north of Latitude  $53^{\circ} 23.80'$  this sheet joins topographic sheet T-6548. A satisfactory junction of form lines was accomplished with no revision necessary.

5. In the area adjacent to Chernofski Harbor, this sheet joins Air Photographic Surveys T-5406 and T-5730. A satisfactory junction of form lines was accomplished and no revision was necessary.

6. On the east and south, from vicinity of Cape Aiak eastward, this sheet joins topographic sheet T-6716. A satisfactory junction of form lines was accomplished and no revision was necessary.

7. The narrow strip of form lines inked on this sheet to north of triangulation station HOPE 1936, joins topographic sheet T-6548 on the north, sheet T-6716 on the west, and sheet T-6641 on the east. The inked lines are theoretical, being drawn by an officer familiar with the country, to fill in a gap existing between the above sheets, and a junction was made in each case. Removed.  
See page 5.

#### NAMES

The following names shown on this sheet in pencil are from Chart 8802:

Pacific Ocean, Bering Sea, Unalaska Island, Cape Aspid, Chernofski Harbor, Umnak Pass, and Cape Aiak.

The name "Surveyor Bay" is from topographic sheet Field No. UL-36.

#### STATISTICS

Statute miles of shoreline .....None

Area in square statute miles .....70.5

Respectfully submitted,

*James C. Tison, Jr.*  
James C. Tison, Jr.  
Jr. H. & G. Engr.

Approved and Forwarded:

*A. M. Sobieralski*  
A. M. Sobieralski,  
Chief of Party.

## Remarks

## Decisions

1		V.S.G.B
2		530670 U.S.G.B
3		530675
4		530675
5		530675
6		" U.S.G.B
7		"
8		"
9		" U.S.G.B
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# GEOGRAPHIC NAMES

Survey No.

**T4955**

(Confidential)  
Name on Survey

	On Chart No.	On previous survey No.	On U. S. quadrang. 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>Unalaska Island</u>									1
<u>Cape Aspid</u>									2
<u>Umnak Pass</u>									3
<u>Cape Aiak</u>									4
<u>Chernofski Harbor</u>									5
<u>Surveyor Bay</u>									6
<u>Lone Peak</u>									7
<u>Ship Rock</u>									8
<u>Konets Head</u>									9
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Names underlined in red approved  
by L. A. Heath on 7/12/40

# MEMORANDUM

## IMMEDIATE ATTENTION

SURVEY  
DESCRIPTIVE REPORT  
PHOTOSTAT OF

~~No. H~~

No. T T4955

(Confidential)

received May 27, 1940  
registered June 5, 1940  
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
20			
22			
24			
25	✓	<i>A. J. M.</i>	<i>Pages 2 &amp; 3</i>
26			
30			
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62			
63			
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83			
88			
90			

RETURN TO

82	T. B. Reed
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✓ *1050R*

DIVISION OF CHARTS

Section of Field Records

REVIEW OF TOPOGRAPHIC SURVEY NO. 4955 (1938) FIELD NO. Y-37

Aleutian Islands, Unalaska Islands, West End  
Surveyed in July - September 1938, Scale 1:40,000  
Instructions dated February 3, 1938 (SURVEYOR)

Sextant Survey

Whatman's Paper

Chief of Party - A. M. Sobieralski.  
Surveyed by - Officers of Ship SURVEYOR.  
Inked by - J. C. Tison, Jr.  
Reviewed by - J. A. McCormick, June 26, 1940.  
Inspected by - H. R. Edmonston.

1. Junctions with Contemporary Surveys.

This survey contains no original shoreline and junctions with adjoining surveys are concerned only with inland detail. Junctions were made with topographic surveys T-6552 (1936), T-6597 (1936-37), T-4937 (1936), T-6548 (1936) and T-6716 (1938-39) and with topographic maps T-5406 and T-5730.

The descriptive report discusses in considerable detail the amount of overlap necessary to obtain satisfactory agreement with the various surveys. Suffice to say here that all junctions were carefully examined in this office and the necessary additions or deletions made to this and the adjoining surveys in order to simplify the overlaps as much as possible. The field party did a commendable piece of work in overlapping the form lines of the adjoining surveys a sufficient amount to insure satisfactory adjustments.

2. Comparison with Prior Surveys.

This Bureau has made no previous surveys in this area.

3. Comparison with Chart 8802 (New Print of Dec. 21, 1939).

Charted information in this area is from adjoining surveys discussed in par. 1.

4. Condition of Survey.

Satisfactory.

5. Compliance with Instructions for the Project.

Satisfactory.

6. Additional Field Work Recommended.

None.

7. Superseded Surveys.

None.

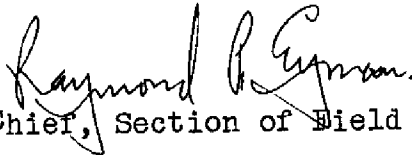
Examined and approved:



T. B. Reed,  
Chief, Section of Field Records.



Chief, Division of Charts.



Chief, Section of Field Work.



Chief, Division of H. & T.