6647

CONFIDENTIAL

Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
L. O. Colbert, *Director*

Aleutian Islands
State: ~~ALASKA~~

DESCRIPTIVE REPORT

Topographic / ~~*Hydrographic*~~ *Sheet No.* Field No. N 37
Reg. No. T 6647

LOCALITY

~~Nikolski~~ Umnak Island,
Nikolski ~~Harbor~~ Bay
~~Aleutian Islands~~

~~Alaska.~~

1938

CHIEF OF PARTY
A. M. SOBIERALSKI
U.S. Coast & Geodetic Survey

U. S. GOVERNMENT PRINTING OFFICE: 1933

6647
CONFIDENTIAL

Applied to compilation 8861 Feb. 12, 1942 J.M.A.
" " " 9025 March 1942 J.M.A.

Form 537a

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 Letter N 37

REGISTER NO. T 6647

State ~~ALASKA~~ Aleutian Islands

General locality ~~ALEUTIAN ISLANDS~~ Umnak Island

Locality Nikolski, ~~Harbor~~ Umnak Island Bay

Scale 1:20,000 Date of survey July, August, 1938

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

Chief of Party A. M. Sobieralski

Surveyed by F. A. Riddell

Inked by F. A. Riddell

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

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

Instructions dated ~~April 13, 1934~~, Mar. 1, 1938 Feb. 3, 1938, 19

Remarks:

U. S. GOVERNMENT PRINTING OFFICE: 1938

DESCRIPTIVE REPORT

to accompany

TOPOGRAPHIC SHEET No. T 6647

NIKOLSKI, UMNAK ID., ALASKA

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

A. M. SOBIERALSKI, H.&G.E., Commanding

Project H.T. 176

Scale 1:20,000

AUTHORITY:

The Director's Instructions dated April 13, 1934 and February 3, 1938.

And amendment to instructions dated March 1, 1938, regarding use of air photographs. HFS.

EXTENT:

This survey covers that portion of the Island of Umnak around the native village of Nikolski* (Umnak P.O.) from OKEE PT. (suggested name) about five miles north of the village to CAPE STARR (suggested name) which is about four miles west of the village and at which point the coast line makes a sharp bend to the southward. Also covered are Ananiuliak Island and a 1:10,000 scale insert of the immediate area around Nikolski.

* φ-52° 56.5 λ-168° 52.0

GENERAL DESCRIPTION:

The highwater line for the most part runs along a gravel and rock beach which is fringed to a varying distance offshore by rocky reefs, large boulders, and kelp. Many of the reefs have jagged rocks which actually are above high water but which are covered except on very calm days by the heavy swell. The most prominent of these are indicated on the sheet in solid black but because of their size are hardly distinguishable on a survey of this scale. On the west side of Ananiuliak Island the rocky ledges (all above highwater) over which the surf pounds extend 40 to 60 meters inshore to the grass line. The dashed lines outside of the reefs indicate foul areas with numerous sunken rocks.

Except on very calm days there are few places where safe landings can be made. In the winter when heavy northwesters are blowing it, often times, according to the natives, is impossible to land even at the village. Dories are hauled overland to the bight* near Sheep Creek where landings are possible in most any weather.

* φ-52°-57.3 λ-168°-51.0

The hills with few exceptions are rolling and are carpeted with a thich mat of grass. The earth is very compact and retains so much moisture that even on the tops of hills and along the ridges there are frequent marsh areas.

The rocky reef north of the village is practically covered at highwater except for a few scattered rocks and the pier like ledge on which triangualtion station NE BASE is located.

NIGGERHEAD:

712 Ft above MHW

Niggerhead, known also as High Hill, the highest hill in the immediate locality is very prominent not only because of its height but also because of its peculiar formation. It is cone shaped with the tip cut off making it flat topped. The sides except for the east are steep, rocky, and rugged.

φ-52°58.5
λ-168°-51.3

SHEEP CREEK:

With the exception of the stream which drains the lakes near the village, this is the largest creek in the vicinity. It extends northeastward into a broad marshy valley dotted with numerous small lakes and ponds. Here, as at the stream running through the village, the natives construct a fish trap across the mouth for catching salmon.

φ-52°-57.5
λ-168°-51.0

NIKOLSKI (UMNAK P.O.):

Nikolski, a native village with but few white inhabitants is the largest village in the Aleutian Islands west of Unalaska. Fishing and trapping are the means of livelihood and also the harvesting of the seals in the Pribilof Islands employs some of the men during the summer season.

The store and the Russian church are painted white and are the most prominent buildings in the village. The church has two crosses, one on the peak of the hipped roof and the other on the belfry tower.* The latter was located as a signal for hydrography and called "HOPE". The store carries few supplies and is stocked only during the trapping season.

* Land mark

Most conspicuous point in village

The Bureau of Indian Affairs school house is an old ramshackled building which they hope to replace in the near future. The school teacher in charge and his wife were most hospitable and they endeavored in every way to be helpful to the survey party.

The ranch buildings of the Aleutian Livestock Company are about one quarter of a mile southwest of the village. This company is engaged in the raising of sheep for wool. Because of the limited market and the high transportation costs the meat packing end of the business has not been developed. The company has several thousand head of sheep which are allowed to graze more or less unrestricted over the south end of the island. During June and July they are rounded up for shearing. The wool is said to be of very fine quality because of its long clean fibers free from burs. The company also has about a dozen horses and several milk cows which are quite a rarity in the islands. Most of the horses are broken to the saddle and are used to round up the sheep and to transport supplies to outlying camps. The buildings consist of living quarters, barns, and store houses, the largest being the shearing barn (⊙Gab)* which looms prominently on the sky line from the anchorage off Kelp Pt.

* Land mark

The wool storage building (⊙ Red) is sheathed with sheet metal painted red and makes a conspicuous landmark.

The mound on which triangulation station ASTRO is located is an old village site which has proved very interesting to the noted anthropologist, Ales Hrdlicka. He and his assistants spent several weeks during the summer of 1938 making excavations on this site.

~~MUELLER~~* ROCK (suggested name):

* See list of geographic names.

This is a submerged rock at the entrance to the channel leading to the inner anchorage of Nikolski Harbor. The location of this rock nearly always can be determined by the breaker over it. In westerly weather at high water it occasionally breaks very heavily, creating a dangerous surge across the channel towards Rudisell Reef. This surge was the cause of the stranding of a boat in 1938 which resulted in the loss of two lives.

RUDISELL REEF (suggested name)*:

* Recommended to U.S.G.B.: φ - 52° - 56.8 λ - 168° - 52.2

This reef located at the entrance to the inner anchorage of Nikolski Harbor is practically covered at high water. In heavy weather the seas even break over the narrow outer ledge of rocks which are about 4 ft. above H.W. It, however, serves as an excellent natural breakwater and protects the beach at the village.

CAMEL ROCK:

Camel Rock* (suggested name) is a prominent formation of black rock which from the eastward looks like a kneeling camel. Often times it looms up in the fog like a detached rock while the lighter colored bluff behind it is obscured. The outside or north face is nearly verticle and is higher than at the point where the rock joins the bluff.

* Recommended to U.S.G.B. φ - 52° 56.2 λ - 168° 56.5

PANCAKE ~~ISLAND~~ Rock:

Pancake ~~Island~~ Rock (suggested name) is a low (~~12 ft.~~) flat rocky reef. From a distance only the higher portion at the east end is visible and it has the appearance of flat pancake lying on the surface of the water.

For topography of Pancake Rock and vicinity see T-6712 (1939)

SURVEY METHODS:

The plane table andstadia were used. Short traverses which with exceptions noted below closed flat, were run between triangulation stations. The traverse around the west side of ~~Chief~~ Anapiullak Island which started at triangulation station CHIEF ISLAND LIGHT and ended at ⊙ REN failed to close by eight meters. It was adjusted by the method described on page 57 of the topographic manual. Topographic station KEN had been located by intersecting cuts taken from the mainland. The control was such that the location of nearly all topographic signals could be checked by intersecting cuts.

No Ren on sheet Probably Ken

As there were single lens air photographs (Scale approximately 1:5,000) covering most of the area of this sheet, little rodding or sketching of detail was done in the field. Points spaced about 200 to 400 meters along the shore line which definitely could be identified on the photographs were located on the sheet. Critical offshore rocks also were located. The detail then was traced from the photographs and reduced to the located points by means of the projector.

Photo Nos 5477 & 5555 Acc No. 710 Air photo Unit

Pancake* Island was not occupied by the topographer as it was impossible to land on the days when in this vicinity. The detail was reduced from the photographs and was oriented by means of cuts taken from a sounding launch.

*Located on T-6712 (1939) Deleted from T-6647 (1938)

Elevations were determined by the usual method of vertical angles measured with the alidade to points located by intersecting cuts.

The declinatoire (No. 214) with which the magnetic meridian was determined, was tested at the Green Lake magnetic station at the beginning and at the end of the field season. (See 1938 report on Magnetics).

JUNCTIONS:

No junctions were made as work on adjoining sheets either has not been completed or has not been started.

Junctions Satisfactory. See Review

CONTROL:

The control for this sheet consisted of well located second and third order triangulation.

COMPARISON WITH PREVIOUS SURVEYS:

The only previous survey with which to make a comparison is the one made in 1925. As it was a reconnaissance survey and was rather sketchy, no detailed comparison could be made. It is noted, however, that all prominent features on the 1925 survey have been located on this sheet.

NAMES:

ANANIULIAK ISLAND is the name given the kite shaped island about 5 miles northward of Nikolski on the 1925 survey and on Chart No. 8802. Also this is the name which is used in the light list. Locally, at the present time, it is known as Chief Island because a former chief of the village tends the light and traps on the island. A few years ago for the same reason it was known as Finnigan's Island. Since the natives apparently change the name every time a new man is in charge of the island, it is suggested that the name Ananiuliak Island be retained.

ANANIULIAK LIGHT is the name used in the light list.

The name OKEE PT. is suggested because the sheep station in the bight to the eastward is locally known as Okee Bay.

The following names are suggested because they are considered descriptive:

NORTH ANCHORAGE
SEAWEED PASSAGE
INNER ANCHORAGE *

* Recommended name Mueller Cove

KELP PT. is the name shown on the 1925 survey and is considered descriptive.

SHEEP CREEK is a well established local name.

In memory of the two men Karl Mueller and Maurice G. Rudisell, who lost their lives in this locality during the 1938 season, the following names as shown on the sheet are suggested:

MUELLER ROCK (Sunken rock) See note above, "Mueller Cove".
RUDISELL REEF

NIKOLSKI seems to be a well established name. The village, however, is also known as Umnak and mail is addressed to Umnak. It, therefore, is suggested that the name UMNAK P.O. be placed in parenthesis after the name Nikolski.

Not accepted. See list of geographic names.

UMNAK LAKE is the name suggested for the lake south of the village because it is the largest lake on Umnak Island.

It is suggested that the name NIKOLSKI HARBOR* be considered to include all the area from Ananiuliak Island to Cape Starr.

* Nikolski Bay recommended

EIDER ISLAND* is the name suggested for the small island reef about one mile northwest of Niggerhead because a number of eider ducks nest there.

* Eider Rock recommended.

CAMEL ROCK is suggested as a name for the large rock located at Lat. 52° - 56'.22, Long. 168° - 56'.55 (See description above). Page 3

The name CAPE STARR is suggested in order to preserve in memory the old steamer Starr which for many years served this territory.

The name PANCAKE ISLAND is suggested for the reef which is about seven miles west of the village. (See description above.) See page 3

LIST OF TOPOGRAPHIC SIGNALS

NAME	DESCRIPTION
Act	Whitewash on driftwood signal.
Add	Whitewash.
Age	Whitewash on pinnacle rock.
Air	Whitewash on driftwood signal.
Art	Whitewash on tangent of cliff.
Ash	Whitewash on prominent black rock.
Ate	Top of waterfall.
Awe	Whitewash.
Ban	Driftwood signal.
Bat	Whitewash on Stile.
Bee	Whitewash.
Bug	Whitewash.
Can	Whitewash on rock outcropping.
Coo	Whitewash on side of prominent black rock.
Dav	Small green pinnacle on gravel beach.
Did	Whitewash on prominent rock outcropping.
Doc	Driftwood signal.
Dor	Whitewash.
Dry	Whitewash.
Dub	Whitewash.
Duc	Whitewash.
Dul	Whitewash.
Egg	Post on hill
Eel	Driftwood signal.
Eve	Whitewash on rock outcropping.
Fib	Whitewash on CAMEL ROCK.
Fur	Whitewash.
Gab	East gable of shearing barn.
Guy	Whitewash on most southerly rock outcropping on bluff.
Hem	38 ft. grassy topped pinnacle.
Hen	Driftwood signal.
Hit	Whitewash on small pinnacle rock.
Hope	Cross on church bellfry.
Hot	Driftwood signal.
How	Driftwood signal.
Hum	Whitewash on logs.
Ice	Whitewash.
Ike	Whitewash.
Jam	Driftwood signal.
Jaz	Whitewash.
Jew	Whitewash on prominent outcropping rock.
Jus	Whitewash.
Ken	Whitewash.
Lew	Whitewash.
Lit	Whitewash.
Lop	Whitewash.
Mis	Whitewash on grassy mound
Net	Whitewash on prominent rock outcropping.
Odd	Whitewash.
Oil	Whitewash on stile.
Out	Whitewash.

LIST OF TOPOGRAPHIC SIGNALS (continued)

NAME	DESCRIPTION
Oze	Whitewash.
Par	Whitewash.
Pat	Driftwood signal.
Per	Driftwood signal.
Pin	Whitewash.
Pip	Whitewash.
Pipe	Clay pipe on NW corner of most Northerly house in Nikolski.
Put	Whitewash.
Red	N. Gable of red warehouse.
Rex	Driftwood signal.
Rik	Whitewash.
Rip	Whitewash.
Rod	Whitewash.
Row	Whitewash.
Rum	Whitewash.
Run	Whitewash.
Rut	Whitewash.
Sim	Driftwood Signal.
Stor	NW corner of store building
Sun	Whitewash.
Tab	Whitewash.
Tag	Whitewash.
Tat	Whitewash.
Ted	Whitewash.
Tie	Whitewash on top of offshore rock.
Tom	Driftwood Signal.
Via	Driftwood Signal.
Wet	Whitewash.
Who	Whitewash on large black offshore rock.
Wor	Whitewash on edge of rock outcropping.

STATISTICS

Statute miles of shore line	17.8
Statute miles of shore line (lakes)	5.9
Area in square statute miles	21.0
Number of elevations	97

This sheet and these records are respectfully submitted:

Fred A. Riddell

FRED A. RIDDELL, Jr. H.&G.E.
U.S. Coast & Geodetic Survey

Approved:

A. M. Sobieralski

A. M. SOBIERALSKI, H.&G.E.
U.S. Coast & Geodetic Survey

Forwarded:

Ray L. Schoppe

RAY L. SCHOPPE, H.&G.E.
Commanding Officer
U.S.C.&G.S.S. SURVEYOR

	Remarks.	Decisions
1		File No 525 685 USGB
2		525 685
3	R - Recommended names	
4	submitted to USGB 7/22/39	525685 USGB
5		525685 USGB
6		525685 "
7		525685
8		525685 USGB
9		525685
10		525 690 USGB
11		525685 "
12		525 685 USGB
13		525685 "
14		530 685 "
15		525 685
16		530 685
17		530 685 USGB
18		USGB
19		525685
20		
21		
22		
23	Additional check of names 6/19/41	
24	on basis of U.S.G.B. decisions L:Heck	
25		
26		
27		

M 234

GEOGRAPHIC NAMES

Survey No. T-6647

	Name on Survey	On Chart No. 8802 A,	On previous survey No. B,	On U. S. quadrangle Maps C,	From local information D	On local Maps E	P. O. Guide or Map F	Rand McNally Atlas G	U. S. Light List H		
R	Nikolski ~~Harbor~~ Bay	✓			USGB. decision						1
	Kelp Point	✓									2
	~~Mueller~~ Rock (sunken)										3
R	Rudisell Reef	✓				"	"				4
R	~~Mueller~~ Cove Inner Anchorage	✓				"	"				5
	Nikolski (~~Umnak P. O.~~)	✓									6
	Sheep Creek										7
	Bering Sea										8
R	Cape Starr	✓									9
R	Pancake ~~Island~~ Rock					"	"				10
R	Camel Rock	✓				"	"				11
R	Umnak Lake	✓				"	"				12
R	Eider ~~Island~~ Rock	✓				"	"				13
R	Seaweed Passage					"	"				14
	North Anchorage (descriptive name)										15
	Ananiuliak Island										16
R	Okee Point					"	"				17
	Umnak I.										18
	High Hill										19
											20
											21
											22
											23
											24
	RSE										25
	7/22/39										26
											27

M 234 VR

FORM M-238

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
~~PHOTOSTAT OF~~
~~No.~~ No. T-6647

received May 8, 1939
registered June 14, 1939
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			
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26			
30			
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62			
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82			
83			
88			
90			

RETURN TO

82	T. B. Reed

✓ JBR

REVIEW OF T- 6647

APPLICATION OF PHOTOGRAPHS

1. ~~Extrix~~ Filling in ~~of~~ the detail

(a) On the photographs there has been outlined in ink the M.H.W. line, rocks, reef limits, shoal areas ect. This interpretation has been used in the transfer of detail from the photographs to the topographic sheet. (See Page 4, Par 1.) descriptive However the report does not state how the interpretation that is marked on the photogrpahs was obtained; there is no mention of field inspection of the photographs having been made. It is assumed that the ~~interxpretation~~ delineation that has been marked on the photographs was obtained by actual inspection of the photographs in the field.

(b) Numerous points ~~xrexmarkedxonxthex~~ have been picked and circled on the prints. Apparently most ofthese are radial points. ~~Frexxexexaxinationxofxth~~ From a comparsion of the prints to the topographic sheet , it appears that the points ~~xhichxarexxentionedxinxthexreportxexxhaxingxbeenxinvited~~ which have been marked on the prints with black letters are the points which were located on the ground to use as control in tracing. ~~have been pricked on the topographic sheet, but are not otherwise marked identifiable on the drawing. These point are not marked on the topographic sheet except by fine prick poin~~ lightly These points are marked with a light prick point on the topographic sheet.

2. ~~From~~ Form lines

(a) The ~~rex~~ descriptive report does not state to what extent the photographs were used in drawing the form lines. Because of the scale difference between the photographs and the topographic survey, the ~~largexxxxixexfxthexphotex~~ relation between the scale of the photographs andthe contour interval, and the lack of complete coverage of the photographs in the interior portions of the area ~~xurxyed~~ surveyed, it is assumed that very little use, if any, ~~at all,~~ was made of the photographs for form lining.

3. Pancake Island

It is explained in the descriptive report that Pancake Island Rock was not visited, but that it was drawn from the photographs, oriented by cuts from the sounding launch. ~~xherexarexnexpointsxmarkedxonxthe~~ There is only one point on Pancake Island which has been ~~xarked~~ picked on the photographs. This appears to ~~be~~

represent the position of station Pancake, 1937, (~~although~~ it is unnamed on the print). There is no mention in the report how this staion was located on the photographs, since the island was not visited. Furthermore, no points appear on the prints of Pancake Island which can be identified as the cut-in points which were said to have been taken to this island from the launch. Because of this lack of cut-in points which can be identified, and the brevity of the explanation given in the descriptive report, there is some doubt as to the details of the methods employed in locating and orienting Pancake Island.

For Topography of Pancake Rock and vicinity see T-6712 (1939)

July 18, 1939

T. M. Price Jr.

Field Records Section

DIVISION OF CHARTS

SURVEYS SECTION

REVIEW OF TOPOGRAPHIC SURVEY NO. T-6647 (1938) FIELD NO. N-37

Aleutian Islands - Umnak Island, Nikolski Bay
Surveyed in July - August 1938, Scale 1:20,000
Insert Scale 1:10,000
Instructions dated February 3, 1938, March 1, 1938 (SURVEYOR)

Plane Table Survey with part of the topography from air photographs

Aluminum Mounted

Chief of Party - A. M. Sobieralski
Surveyed by - F. A. Riddell
Inked by - F. A. Riddell
Reviewed by - H. F. Stegman, June 11, 1941
Inspected by - H. R. Edmonston

1. Junctions with Contemporary Surveys

Junctions with T-6648b (1938) on the east (form lines only), T-6712 (1939) on the south, and T-6713 (1939) on the northeast, are satisfactory.

2. Comparison with Prior Surveys

H-4501 (1925), scale 1:20,000

H-4501 is a reconnaissance survey on a local datum containing topography covering most of the area of the present survey. In general the agreement between the two surveys is fair to good. The following major discrepancies were noted:

a. In the vicinity of Lat. 52° 56', Long. 168° 55' the shore line on H-4501 is about 400 meters north of that shown on the present survey. This difference is believed to be due to inaccurate sketching on H-4501.

b. The elevation of Niggerhead, Lat. 52° 58.5', Long. 168° 51.3', is shown as 780 feet on H-4501 while the present survey shows it to be 712 feet.

There are no dangers on H-4501 which were not located on T-6647. The present survey supersedes this reconnaissance survey.

3. Comparison with Chart 8802 (Latest Print dated 11-1-40)

a. Topography

Charted topography originates principally with the survey discussed in paragraph 2 above. The elevation of Niggerhead is in agreement with that shown on the present survey, and the steep slopes along the shoreline are shown by hachures. The present survey supersedes the charted topography.

b. Aids to Navigation

Ananiuliak light, located by triangulation, is charted in its correct position. The triangulation station name is Chief Island Light, 1938. This is the only charted aid to navigation within the area of the present survey.

c. Magnetic Meridian

The magnetic meridians were determined at three points within the area of the present survey. The observations at stations Kol 1925 and Skip 1937 agree closely with the charted values. The value of observation at station Tang 1938, Lat. 52° 56.2', Long. 168° 57.4' is about 1° 15' W. of the interpolated charted value of 13° 50' E.

4. Condition of Survey

Satisfactory.

5. Compliance with Instructions for the Project

Satisfactory.

6. Additional Field Work Recommended

None.

7. Superseded Surveys

H-4501 in part (topography only)

Examined and approved:

Chief, Surveys Section

Chief, Division of Charts

Chief, Section of Hydrography

Chief, Division of Coastal Surveys