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Department of Commerce and Labor
COAST AND GEODETIC SURVEY

O. N. Tittmann
Superintendent.

State: *Alaska*

DESCRIPTIVE REPORT.

Top. Sheet No. *3429*

LOCALITY:

Shumagin Islands.
Popof Strait
Northern Part

1913,

CHIEF OF PARTY:

J. B. Miller

11-4015

3429

DEPARTMENT OF COMMERCE

Coast and Geodetic Survey

O. H. Tittmann, Supt.

ALASKA

Shumagin Islands

ORIGINAL TOPOGRAPHIC SHEET *X 3429*

POPOF STRAIT, NORTHERN END.

Surveyed in June July, 1913 by the party on the C. & G. S. Str.

PATTERSON

James B. Miller, Assistant, C. & G. Survey, Chief of Party

William V. Hagar, Aid, C. & G. Survey, in charge of
topographic party.

SCALE 1: 10,000

AREA 9 1/2 SQ. STAT. MILES.

INKED by William V. Hagar.

DEPARTMENT OF COMMERCE
Coast and Geodetic Survey,

O. H. Tittmann, Supt.

SOUTHWEST ALASKA

Shumagin Islands

DESCRIPTIVE REPORT TO ACCOMPANY TOPOGRAPHIC SHEET X. 3429

Surveyed by the Steamer PATTERSON, June and July, 1913.

1. REPORT, LIMITS, SCALE, METHODS, OBSERVER.

I have the honor to report as follows upon topographic sheet A, which shows the topography of Humboldt Harbor, and the northern part of Popof Strait, Shumagin Islands, Southwest Alaska, as done in June and July, 1913, by a party from the Steamer PATTERSON. On the north and east the sheet connects with sheet M on the north and west with sheet C, and to the south it connects with sheet B. The scale is 1:10000 meters. The plane table was used exclusively in the survey. The work was done by a party in charge of William V. Hagar, Aid, C. & G. Survey.

2. CONTROL, TRAVERSES, CONTOURS, HEIGHTS.

The traverses were closed upon triangulation stations and a proportional linear adjustment made. The greatest error was 40 meters at "Cap". No other error of closure was over 15 meters. The amount of adjustment for error of closure for each hydrographic signal is shown in the list of positions of plane table signals. In plotting distances in the field, allowance was made for expansion or contraction of the sheet. All heights and elevations are above the high water level. The heights were all obtained by means of the plane table. The land is not covered with trees nor otherwise obscured from the shore line and the contours were sketched with especial attention to accuracy. The contour interval is 50 feet.

3. DETAILED DESCRIPTION OF SHORE, PROMINENT POINTS.

East Head is a broad grass-covered point at the extreme northwest point of Popof Island. It rises in a bluff about thirty feet high from the beach. Back of this bluff there is a very ^{gentle} general slope upward toward the interior of the island. To the eastward of East Head the shore is very rocky and the bluff gradually increases in height until at Δ Green it is 275 feet high. About a mile from East Head and directly beneath Δ Green, is Popof Rock, a large offlying rock which shows up very prominently. It is 70 meters from shore and 31 feet high. Range Island. Directly opposite East Head in Popof Strait is Range Island. This island is 300 meters long and 130 meters wide at the widest part. It is nearly flat on top with steep banks leading down to the shore. The top and banks are covered with grass except at the northern end where the island ends in a rocky bluff. The highest point of the island is 30 feet above high water level. Near the

center of the island a low earth wall is to be found enclosing a small plot of ground, evidently the attempt of some one to start a garden. The water between Range Island and East Head is shallow and full of kelp. South of East Head about half a mile is a large but shallow bight. The shore line all the way from East Head to Sand Point is rocky with low bluffs from ten to thirty feet in height from which there is a gentle slope upward toward the interior of the island. About a mile south of East Head is another but smaller bight. At the head of this bight is an occupied house. About one eighth of a mile west from Sand Point Wharf is a broad point from which the ground slopes up rather steeply to a hill 110 feet high back of Sand Point. ^{25 meters off} the point is a small rocky island five feet above high water. Sand Point ^{Village} is located on the west shore of a narrow bight. At the head of the bight is a small stream of water. South and west of Sand Point, ^{the village} the shore continues to be rocky but with very steep grass covered banks rising to a height of from fifty to a hundred feet. About a mile from Sand Point, ^{the village} is a low sand spit half a mile in length and shaped much like an equilateral triangle with the apex off shore. From the sand spit the shoreline bears toward the south-east. South of the sand spit is a dark colored slightly overhanging bluff 90 feet high at the highest point and about a third of a mile in length. Arch Rock. At the southern end of the bluff is a narrow rocky point 30 feet high projecting out 80 meters from main body of land. The outer end of the point has been honey-combed by the action of the surf and waves and presents an arched effect. South of Arch Rock is a narrow valley about an eighth of a mile in width. Beyond the valley the shore is bordered by high bluffs of a rather reddish color. The bluffs rise rapidly to a height of 440 feet and extend past the limits of the sheet. West Head is a dark rocky promontory 40 feet high, about midway between Popof Strait and Zachary Bay. To the west of West Head the bluffs get higher but with numerous valleys which give to the bluffs the general appearance of a transverse section of a series of waves. About half a mile east of West Head is a conspicuous black bluff 300 feet high with a somewhat rounded top. From here the bluff rapidly decreases to a height of from fifty to a hundred feet and presents a terrace like appearance. Opposite Range Island is a small promontory with bluff ninety feet in height. The shore from the north and western limits of the sheet to this promontory is very rocky. To the south of the promontory the bluffs gradually grow lower. About three quarters of a mile to the ^{south} north is a low point at which the shore line turns and bears nearly west. Unga Reef is a rocky reef located 500 meters off this point. It bares at extremely low tides only. Inshore from the reef is a small rocky island about ten feet above high water level. Westward of Unga Reef the beach is sandy with steep grass covered banks inland. Half a mile west of Unga Reef is a rocky point with steep grass covered bank about 70 feet high surmounted by a vertical bluff rising to a total height of 110 feet. West of this point is another sand beach 3/4 of a mile in length. Just inland from the sand beach are a number of sand dunes averaging about forty feet in height. Near the middle of the sand beach the shore line turns and bears nearly south again. Immediately south of the sand beach is a dark bluff 140 feet in height. About three fourths of a mile south of the sand beach is a very conspicuous whitish bluff 160 feet in height and 500 meters in length. Beyond the white bluff the shoreline is generally rocky with steep grass covered banks. Half a mile below \odot Cloth is a rocky point with a small sandy bight on either side. In the bight to the north of this point is a rancher's house and one or two barns. South of the point is a rocky open bight terminating in the point upon which is the \triangle Beef, which is the southern limit of the sheet.

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4. SETTLEMENTS: WHITE, NATIVE. RESOURCES: MINING; FISHING; FARMING, COMMERCE.

There is only one settlement and half a dozen scattered houses within the limits of the sheet. Sand Point is a white settlement consisting of half a dozen houses, store, post office, road house, wharf and warehouses. It is located in a bight with a small hill just north of it which shuts it off from view when approaching from the north until close by. From the south, however, it is visible for some distance. The scattered houses in the general neighborhood of Sand Point are all occupied by white men. There is at present no mining or fishing within the limits of the sheet. Considerable gold was taken from the beach south of the sand spit several years ago and some prospecting is at present being done in the hills back of the reddish bluff at the southeastern limits of the sheet, but there are no active mining operations. There is also a cod fishing station planned to be placed on the sand spit south of Sand Point, but all that had been done toward it up to the past fall was to drive location stakes. About half a mile north of Δ Beef on the east coast of Unga Island lives a rancher with about a dozen head of cattle. Sand Point is a regular stopping place for the mail steamer. There is a wharf at Sand Point and sufficient water at low tide for vessels up to 14 feet draught. The store is headquarters for supplies for the fishermen and trappers on the adjacent peninsula as well as those on the islands, and carries quite an extensive stock. There are several small power and sailing boats which make irregular trips to the nearby villages and fishing stations, and do a general coasting trade. There is little outgoing shipping from Sand Point.

5. GEOGRAPHIC NAMES: AUTHORITIES: LIST.

Below is given a list of geographic names of the most prominent points. The authorities taken were the old charts and names obtained by inquiry among the older residents. In the latter case care was taken to verify the names by asking several people. Considerable difficulty was met with in getting names due to the fact that the natives did not have local names except for the most prominent points.

East Head
Popof Rock
Range Island
West Head
Sand Point
Unga Island
Popof Island
Unga Reef

6. MAGNETIC DECLINATION.

The magnetic declination was carefully determined with the table in orientation at West Base and the declination was found to be 18° - 31' east.

At Sea, Nov. 10, 1913.

Respectfully submitted,

William V. Hagar

Aid, C. & G. Survey.

APPROVED:

James B. Miller
Assistant, C. & G. Survey,
Chief of Party

To the Superintendent,
Coast and Geodetic Survey,
Washington, D. C.

STATION	LATITUDE			LONGITUDE			REMARKS
		Seconds in M's before after adjustment			Seconds in M's before after adjustment		
West Base	55 - 19		525.7 1329.8	160 - 32	296.3 761.8		
Rum	18	1287 569	1287 569	31	798 260	798 260	W.W. on end of arch rock.
Cab	18	572 1284	572 1284	30	701 357	701 357	Shack on beach below cliffs
East Base	19		667.4 1188.2	31		581.9 476.1	
Ho	19	658 1197	658 1197	31	607 451	607 451	House on sand spit
Ay	19	993 863	993 863	31	232 826	232 826	W.W.
Cat	19	1241 615	1241 615	31	108 950	108 950	W.W.
Prom	19	1542 314	1541.7 313.9	31	44 1014	44.7 1014.1	
Man	19	1730 126	1726 130	30	687 371	688 370	House opposite Sand Point. P.O.
But	20	387 1469	379 1477	30	306 752	308 750	W.W.
Bite	20	536 1320	528 1328	30	521 537	523 535	Mast of sloop on beach
Der	20	456 1400	448 1408	30	702 356	704 354	Derrick on wharf
Flag	20	560 1296	552 1304	30	688 369	696 367	Flagstaff
Go	20	916 940	905 951	30	790 268	793 265	W.W.
Set	20	1348 508	1333 523	30	564 494	568 490	Rt. hand ner. cor. of yellow house.
Mut	21	62 1794	42 1814	30	855 202	861 196	W.W.

STATION			LATITUDE		LONGITUDE			REMARKS
			Seconds in M's before after adjusting		Seconds in M's before after adjusting			
Pal		55 - 20	1856 .00	1836 20	160 - 30	292 765	292 760	Falls by shore (in light)
Bun		21	380 1476	358 1498	30	519 538	525 532	W.W.
Do		21	449 1407	427 1429	30	502 555	508 549	W.W.
Hum		21	1149 707	1122 734	30	95 962	103 954	W.W. cairn
Ram		21	998 858	966 890	29	350 707	358 699	Cloth signal over a rock
Cap		21	1115 741	1081 774	28	712 345	721 356	W.W. on Popof rock.
Bluff		20		6442 1711.4	33		121.2 436.4	
House		19	1440 416	1440 416	34	809 249	809 249	L. Hand window of house
Wash		19	857 999	857 999	34	829 229	829 229	W.W.
Cloth		18	232 1624	231.6 1623.9	35	248 811	248.2 810.4	Intersection station
Bar		17	996 860	1000 856	35	60 999	68 991	L. Hand near cor. of barn
Gun		17	1088 768	1092 764	34	696 363	704 355	W.W.
How		17	8 1848	16 1840	34	435 624	451 608	W.W.
Beef		17	5 1851	13.9 1841.6	34	443 616	459.3 592.8	Intersection station

STATION	LATITUDE			LONGITUDE			REMARKS
		Seconds in M's before after adjusting			Seconds in M's before after adjusting		
Bluff	55 - 20		<i>644.2</i> <i>1911.4</i>	160 - 33		<i>621.2</i> <i>436.4</i>	
Dog	20	931	931	33	51	51	Cloth signal ✓
		925	925		1007	1007	
Del	20	1328	1328	32	697	697	Cloth signal ✓
		528	528		361	361	
Be	20	1088	1088	32	250	250	W.W. on outly- ✓
		768	768		808	808	ing rock
Mat	21	282	282	32	243	243	Cloth signal ✓
		1574	1574		814	814	
Rin	21	893	893	32	139	137	W.W. ✓
		963	963		920	920	
Ded	21	1024	1024	31	864	864	Cloth covered ✓
		832	832		193	193	cairn
Dal	21	1072	1072	31	679	679	W.W. ✓
		784	784		378	378	
Bob	21	1754	1754	31	889	889	W.W. ✓
		102	102		168	168	
So	22	753	753	31	1035	1035	W.W. ✓
		1103	1103		22	22	
Win	22	<i>1570</i> <i>286</i>	<i>1570</i> <i>286</i>	31	<i>797</i> <i>260</i>	<i>797</i> <i>260</i>	W.W. ✓
Wet	22	1476	1476	31	932	932	Mouth of ✓
		380	380		124	124	stream
Haw	22	1761	1761	32	65	65	W.W. ✓
		95	95		991	991	
Wit	22	1828	1828	32	356	356	W.W. ✓
		28	28		700	700	
Nit	23	239	239	32	690	690	W.W. ✓
		1617	1617		366	366	
Day	23	205	205	32	996	996	W.W. ✓
		1651	1651		60	60	
Hal	23	553	553	33	332	332	W.W. ✓
		1303	1303		724	724	