

T-3553

U. S. DEPT. OF COMMERCE
L. & A.
FEB 25 1916
Am. No.

Department of Commerce and Labor
COAST AND GEODETIC SURVEY

Superintendent.

State: _____

DESCRIPTIVE REPORT.

Topo _____ Sheet No. _____

LOCALITY:

190

CHIEF OF PARTY:

3553
Ch Island

Party

Descriptive report to accompany Topographic No.

Pearl Island to East Chugach Island.

The Chugach Islands are rather simple in plan, without deep indentations or long projections. All of the exposed faces are rugged and precipitous, evidence of the battering they continually receive. This character of the shore, together with the sea, currents and tide-rips, made traversing difficult. Also, the topographer, under the cliffs, was cut off from a view of the interior parts. Strong currents flow around the islands; ebb-tide setting to southward and eastward, flood-tide setting to northward and westward, as shown by the arrows at various points. No anchorages of any value occur around them, although in good weather the Explorer has anchored for two or three hours near each, while awaiting the return of field-parties. Low sand-spits seem to form on the side of the islands towards which flood current flows, which is also the more protected side.

East Chugach Island, roughly rectangular, is two miles wide and four long, with its greatest length in an east and west (magnetic) direction. The north and south middle line is low, dividing the island into two mountainous parts, of which the western contains the highest point. The northwest point of the island is a low, wooded sand-flat.

The rest of the shore-line consists of rugged bluffs, sometimes extending well up to the summits, as in the case of Chugach Island High Peak. The precipitous sides of the eastern part, east, north, and south, are marked by remarkable and prominent wide white veins, often several hundred feet long, and generally nearly vertical. They make excellent hydrographic signals.

Many boulders, ledges, and rocks fringe the shores. Kelp surrounds the island. Half a mile east of the northwest point a rocky reef, awash at low water, extends off-shore for a quarter of a mile.

There are several rocks, awash at half-tide, eastward of the northeast point of the island; the outermost one being a thousand meters east true

from the point. Another rock, a few feet above high tide, and surrounded by others showing at low water, lies a thousand meters westward of the point, and half a mile off shore, opposite the middle of the large bight of which signals Cap and East mark the extremities. In good weather, the Explorer once anchored, for a few hours, half-way between this rock and signal Cap.

Twin kraggs, 300 feet high and 100 meters apart, mark the southeast point of the island. The Light-House Service placed an intermittent gas-light on the inner one of these, instead of the outer, on account of the difficulty of crossing the separating ravine. However, from the point chosen, the light shows over an unbroken arc of approximately 250°.

Swirls were seen east of the point and tide-rips south of it. Some rocks were located close around the point, and the existence of others, a little further off, is suspected, but the suspicion could not be verified. While soundings may prove the vicinity clear of rocks, it is at present deemed wise to treat the immediate proximity to the point with respect. Strong flood-currents and heavy tide-rips occur here.

Flood-currents sweep to the northward and westward, ebb-currents to southward and eastward, along the shores of East Chugach Island.

Only one house was found on the island, and this, unoccupied and obscured by trees, is half a mile east of the northwest point.

As inshore soundings have been made only about the northwest point of East Chugach Island, many rocks, prominent points, and recoverable features of a permanent character, were located for future surveys. The topographic sheet, or a photograph of the same, is the best aid for recovering these points. This is important, as the omission of this data in the instance of Port Chatham this year, caused additional work of one day. The points were only identified, as the new work progressed. See list of positions and attached photographs.

Pearl Island, two by three miles and roughly rectangular, has a low ridge along its north side, and a high one along the south side. Between

is a wooded valley, drained to the westward. There is a small deserted village at the west end of the valley, near the beach. Except at the west end and at the northeast, the shores rise in steep bluffs.

No rocks, except the few shown close to the shore, were seen on the north side; many rocks, ledges, and pinnacles were seen and plotted, near shore on the east and south sides.

The passage between Pearl Island and Pearl Island Rocks seems clear. Cuts were made on two rocks seen at low water, 200 meters southwestward of Pearl Island Rocks. But before additional cuts could be made, the rocks were covered, and the second cuts were made on ripples supposed to mark the rocks. The positions so obtained are given as found.

There is a wide kelp-patch at the east end of the island, and another among the ledges at the west end. These western ledges are all covered at high tide, but one of them bares soon afterwards, and is suitable for a permanent hydrographic signal. A rock was seen between these ledges and Nagahut Rocks, and one east of Nagahut Rocks.

Tangent cuts were made on the group known as Nagahut Rocks, but they were not visited by the topographer, on account of the sea and tide-rips. The highest point (50 feet) is the rounded top of the large eastern rock. This point is signal Nag. The small sharp pinnacle just south of Nag is also suitably located for use as a signal.

Rocks are found off the sand beach abreast of the houses on the west side of the island.

Strong currents sweep around the island. North of Pearl Island Rocks, in smooth weather, two men in a dinghy could barely keep abreast of the rocks; while, on the north side of the island off signal Ran, three men in a skiff could not hold their own with the flood.

Main Shore - East end. The bight on the mainland at the east end of the sheet is very foul. The rock, signal Sir, is an easily recoverable permanent point.

Chugach Bay is open to the southeastward, and would afford no shelter from winds from this direction. The Explorer anchored several times at the anchorage shown, in twelve to fifteen fathoms, soft bottom, but with a short scope of chain. The thin line of kelp here extends well out into deep water.

At the north entrance point, a rock, signal Tom, stands half a mile offshore. The shore here has been beaten back, leaving wide ledges bare at low water. The south entrance point is well marked by a large slide. As no other name could be obtained, Slide Point is suggested for this place, as the mark is very prominent. Off the slide, is a group of rocks showing at all tides. The highest point of the highest and largest one, is signal Rox. Kelp-beds surround the rocks, and stretch well out into the bay. While the extent of the kelp is estimated, it is not believed to be exaggerated.

Deep water extends well into the west arm of the bay, passing halfway between the rock, signal Check, and the north shore. No dangers were seen in the north bight, but no soundings were made.

Chugach Bay to Elizabeth Island. For four miles west from Chugach Bay, the shore is fringed with wide ledges and kelp. The launch passed rather close along the edge of the ledges, without seeing rocks or dangers, other than shown.

The stream shown drains a pond, which is filled by streams from the valleys back of it.

Near the west end of the sheet, there are several rocks and some large ledges. The outermost rock, which shows about half-tide, is well located. South of this rock, tiderips, bad for small boats, occur.

Signal Ledge is a small rock, showing at all tides, in the west end of a long ledge, which is covered at high tide. Signal Island is a not very definite point. It is the highest point in the grass-covered part of a large ledge. Most of this ledge is covered at high-tide.

The count...

The country adjacent to the shore is mountainous, and the interior contains higher summits. No names could be obtained for features in this vicinity, although inquiries were made.

The work was done by the usual traverse methods, using a mountain planetable for convenience, and a sheet necessarily smaller than that ordinarily used on the larger table. The topography from these small sheets is combined. *The contour interval is 100 feet.*

Respectfully

E. E. Smith

Asst. C. & G. Survey.

Approved
R. S. Patton
Chief of Party



Descriptive Report to Accompany

Topographic Sheet

Pearl Island to E. Chugach Island

Kenai Peninsula

Alaska

Str. Explorer

*H. J. Patton, Asst.
Chief of Party*

1915

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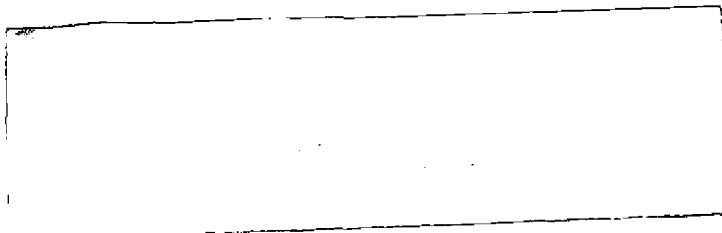
Respectfully

E. E. Smith

Asst. C. & G. Survey.

*Approved
R. S. Patton,
Chief of Party*

Pearl Id from
Southwest.
Nearly vertical
Bluffs here
reach to the
top of the ridge



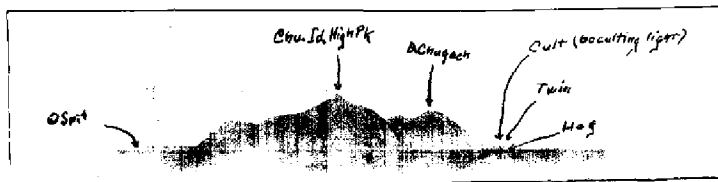
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Pearl Id
from
North eastward



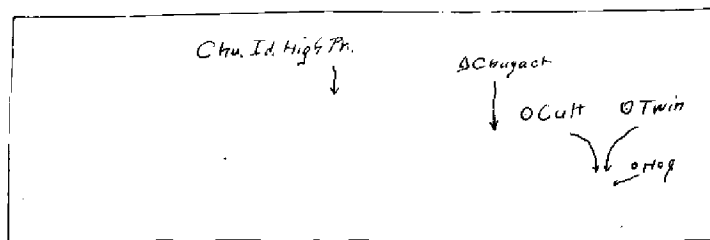
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Chugach Id
from West



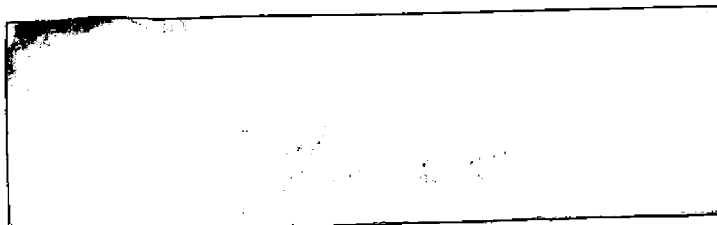
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Chugach Id
from West



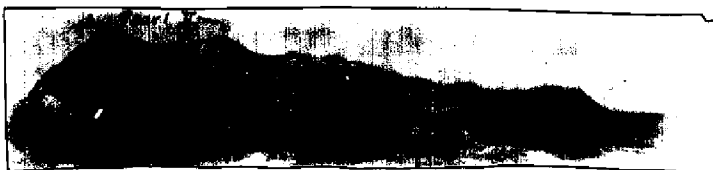
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Pearl Id from
Southwest.
Nearly vertical
Bluffs here
reach to the
top of the ridge



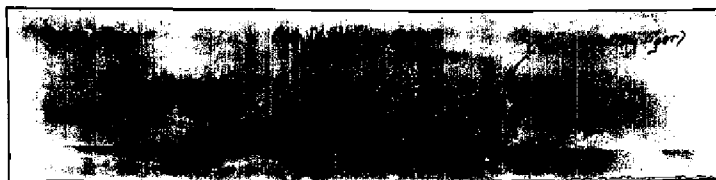
①

Pearl Id
from
Northeastward



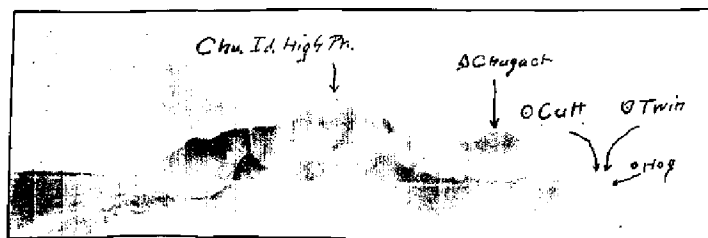
②

Chugach Id
from West



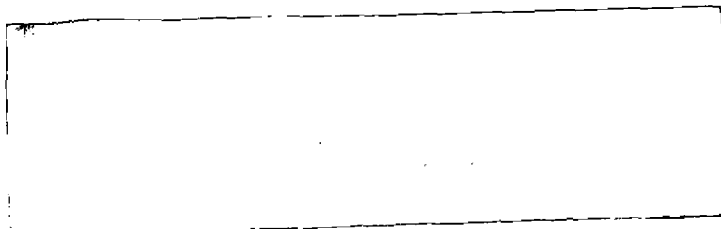
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Chugach Id
from West



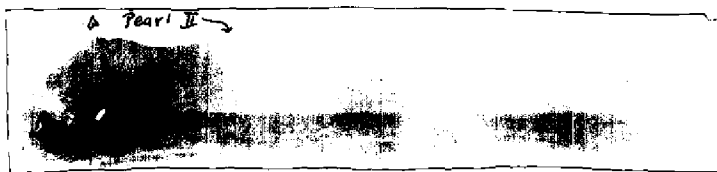
④

Pearl Id from
Southwest.
Nearly vertical
Bluffs here
reach to the
top of the ridge



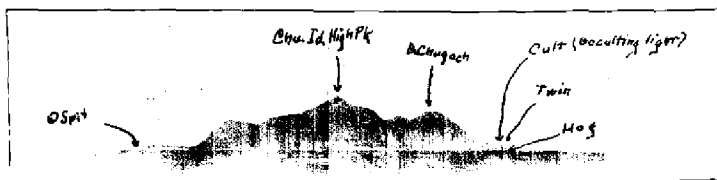
①

Pearl Id
from
North eastward



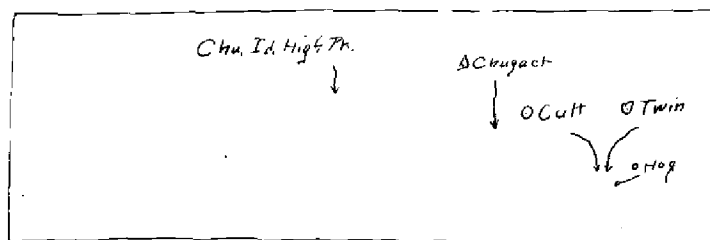
②

Chugach Id
from West



③

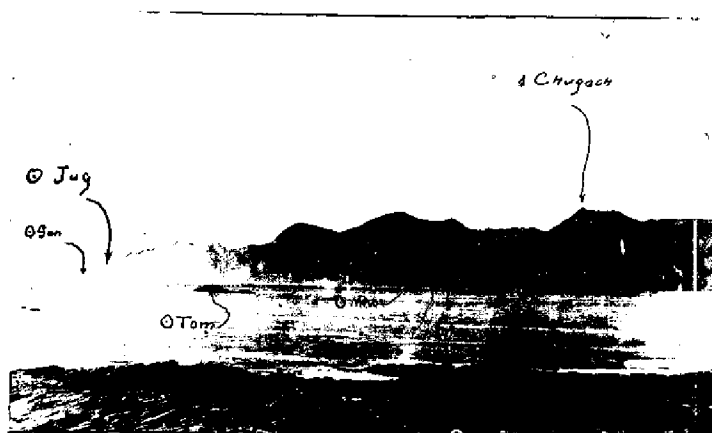
Chugach Id
from West



④

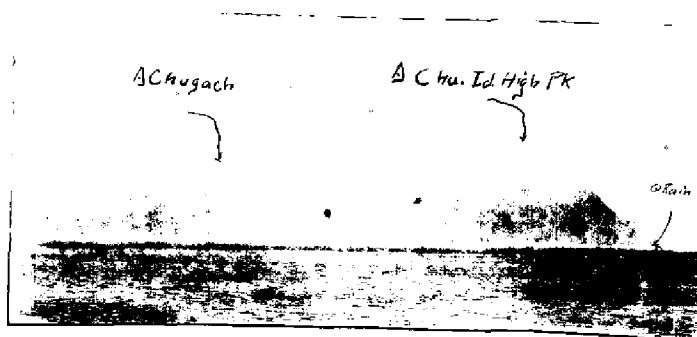
From Mainland Shore
Rock off shore in
TS sig. Torr.

East End
Chugach Id
From North



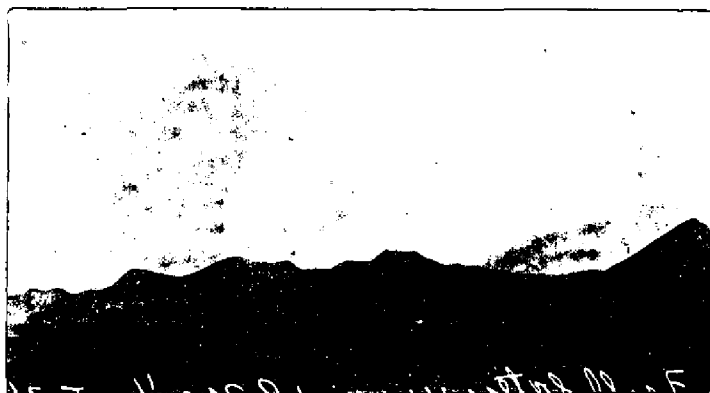
(5)

West end
Chugach Id
from mainland
Shore, From North



(6)

Chugach I
from North



(7)

Looking
Northeastward
from point North
of Sig. Island.
The other side
of the ridge
drops into the
head of
Chugach Bay



(8)

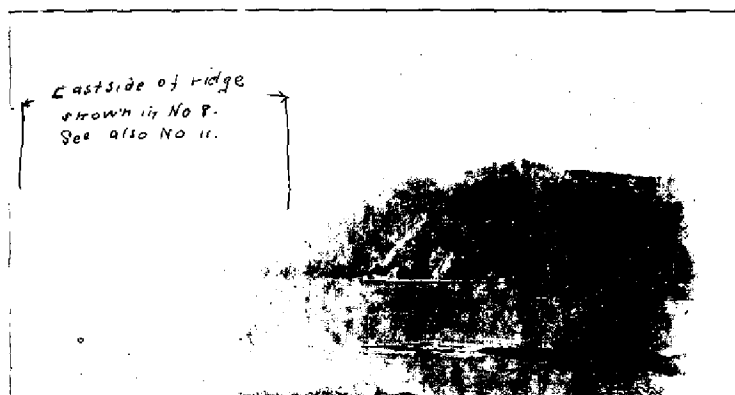
Looking into
North bight of
Chugach Bay

The ridge, on which
the sharp spike
is seen, is probably
on the North side
of the west arm
of Windy Bay.



(9)

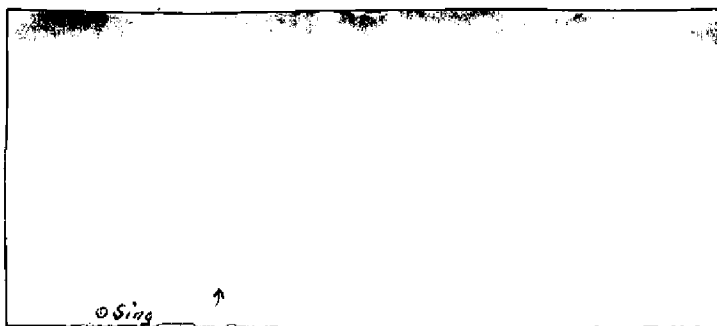
From mainland
shore at East
side of Chugach
Bay. Looking
westward into
the Bay



East side of ridge
shown in No 8.
See also No. 11.

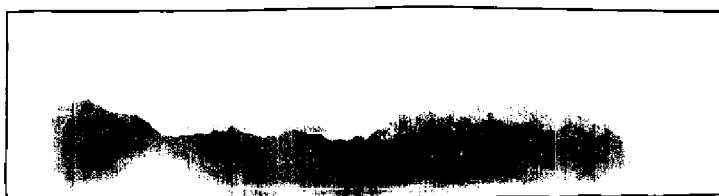
(10)

Head of Chugach Bay from the rock, sig. check, in the middle.



(11)

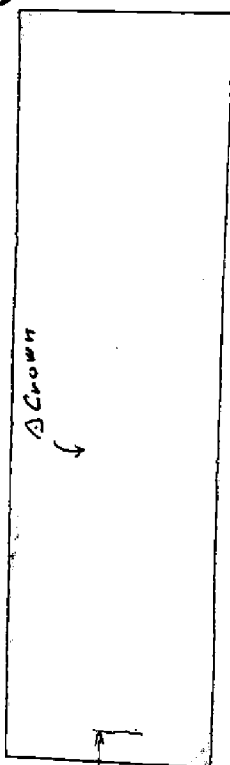
Looking into Chugach Bay from a point North of E. Chugach I.



(12)

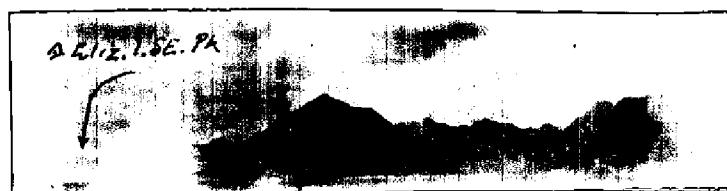
Looking Northwestward toward A Crown

(15)



← E. Elizabeth Id.

Looking Westward into Chugach B.

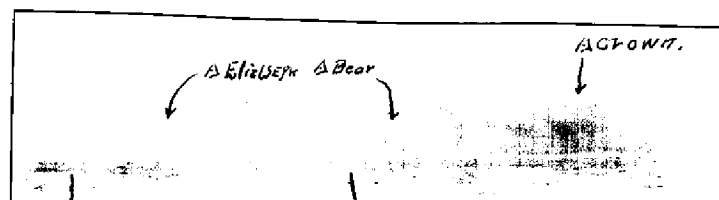


← Elizabeth Id.

Note large slide on point

Chugach B.

(13)



← Elizabeth Id.

Mainland

(14)

Signal	Lat.	Met.	Long.	Met.	Discriptions	Recoverable
Mainland - From West to East						
Doc	59°		151°			
Ledge	09' 566	44'	862		Signal highest point small shoulder. See adjoining sheet.	Yes
Cloth	08' 1463	43'	787		High rock showing at all tides in west end of long ledge	Easily
Island	09' 348	43'	713		Cloth on tree trunk at edge of low bluff	Possibly
Shore	09' 00	42'	907		Highest point of large ledge. Not very definite	Yes
Point	09' 358	43'	334		Whitewash on rock at small point	Possibly
Oak	09' 657	42'	790		Whitewash on rock at small point west side of bight	Possibly
Trot	09' 1193	42'	329		Cloth on tree at shore line in bight	Possibly
Walk	09' 950	41'	577		Whitewash on rock at shore line, east point of bight	Possibly
Hid	09' 955	41'	131		Whitewash on small cairn	Yes
Bad	09' 1149	40'	525		Whitewash on rock	Possibly
Kel	10' 379	37'	323		Peak 1680 feet high	Yes
Duck	09' 1137	35'	801		Tripod signal	Probably
Rox	09' 1450	35'	132		Whitewash at point of bluff	Yes
Gal	09' 1435	34'	508		Highest point of highest rock in group south side of entrance to Chugach B.	Easily
Shag	10' 507	34'	613		Whitewash on rock at point entrance to Chugach Bay	Probably
One	10' 1261	36'	237		Whitewash on face of small point	Probably
Check	10' 1273	36'	831		Whitewash on small point	Possibly
Herr	10' 1636	36'	869		High point large rock middle of west arm Chugach Bay. Rock is flat but with a little care point can readily be determined	Easily
Sing	10' 1587	378	404		Whitewash on small point	Probably
Pod	10' 1744	37'	519		Whitewash on highest point rock just off small point	Yes
Head	11' 114	38'	336		Tripod signal middle of head of bay a few yards back from shore line	Probably
High	11' 134	38'	295		Large rock in middle of beach at head of bay	Easily
Sat	11' 762	35'	560		Whitewash at top of bluff	Possibly
Low	11' 1045	35'	309		Large rock about 50 meters off shore line	Easily
Clam	11' 1598	35'	15		Whitewash in narrow, outer, vertical face of low projecting shoulder	Easily
Bat	12' 520	34'	260		Whitewash on small point of rock at foot of slope of hill at west end bluffs.	Yes
Three	11' 1800	33'	787		Whitewash on rock point	Yes
Two	11' 1533	333	535		Whitewash on outer side small island	Probably
Wrong	11' 1411	32'	730		Whitewash on rock	Possibly
Ship	11' 1291	32'	189		Whitewash on small point of rock	Possibly
Tom	11' 1075	31'	420		Whitewash small point of rock 100 meters west of small stream	Probably
Jerry	11' 414	31'	15		Top of rock showing at all tide 700 meters off shore	Unmistakeable
Entrance	11' 1054	30'	628		Whitewash on small rocky point	Possibly
Rak	11' 1106	30'	1063		Highest point of rock in ledge on point at entrance to small bay	Yes
Sir	11' 1695	30'	420		Whitewash on vertical face of large rock 10 meters from shore	Yes
John	11' 1754	29'	693		Whitewash top small rock showing at all tides	Easily
Dot	12' 125	29'	539		Whitewash west corner of small point	Yes
Shell	12' 255	29'	99		Whitewash on rock in shore line	Possibly
Hunt	12' 00	28'	711		Whitewash on small rocky point	Probably
Windy	12' 87	28'	328		Signal on highest point of large ledge rock on wide ledge	Yes
Shoulder	12' 494	27'	902		Whitewash on steep face of bluff entrance to Windy Bay	Yes
	12' 684	31'	209		Peak of shoulder of hill just east of triangulation station Badger	Yes
Pearl Island						
Gim	59°		151°			
Ran	07' 1157	42'	450		Signal on spit	Probably
Ban	07' 1216	41'	477		Whitewash on rock	Possibly
Brass	07' 324	40'	650		Pole and banner signal	Doubtful
Cop	07' 135	40'	456		Point of white rock	Yes
Per	07' 135	40'	296		Point of white vein	Yes
Tin	07' 138	39'	485		Highest point of rock (25 feet) adjacent to shore	Easily
Jo	06' 1709	39'	86		Top of rock	Yes
Law	06' 1685	38'	551		Whitewash on rocky point, about 30 feet high	Possibly
Flat	06' 1100	38'	449		Low, very flat rock just above high water 100 meters off shore	Yes
Cage	06' 563	38'	664		Big rock, flat top, 25 feet high, about 100 meters off shore	Yes
Tiger	06' 262	38'	747		Rock 10 feet high, 100 meters off shore	Yes
Top	05' 1746	39'	111		Big pinnacle rock near shore, 30 feet high	Yes
Gun	05' 1090	39'	847		Highest point eastern big rock at southeast point Pearl Island	Easily
Fire	05' 1467	40'	561		White spot in the black rock of the shore	Yes
Bare	05' 1721	41'	52		White mark 30 feet high in bluff	Yes
Water	05' 1472	41'	351		Big black pinnacle 30 feet high	Unmistakeable
Lump	05' 1588	41'	518		Small water fall	Yes
Bight	05' 1828	43'	215		Top of small rock south east corner of small point	Yes
Under	06' 737	43'	359		Rock middle of bight	Probably
Sub	06' 1035	44'	103		Highest point of highest ledge in group of ledges west side of Pearl Island. It is submerged at high tide	Easily
Tack	06' 1278	44'	247		Highest point of ledge	Yes
Head	07' 114	44'	434		Highest point of ledge	Yes
Tall	06' 1553	43'	940		Highest point big rock connected to shore by ledges west point Pearl I.	Easily
Round	07' 42	43'	731		Black pinnacle in ledges near shore line	Unmistakeable
Gable	07' 354	43'	475		Rounded rock at high water line at edge of grass at small point	Yes
Nug	07' 771	42'	647		Outer gable outermost house	Yes
	05' 1530	46'	319		Highest point Nagahut Rocks	Unmistakeable

The assertions concerning the recoverability of these positions are made with the supposition that the searcher will be equipped with a photograph of the topographic sheet.

Signal	Lat.	Met.	Long.	Met.	Discriptions	Recoverable
East Chugach Island.						
	59°		151°			
Spit	08'	1447	31'	707	Signal on end of sand spit at northwest point	Probably
Beach	08'	1136	30'	176	Largest rock in beach, between high and low water lines	Yes
Puss	08'	976	29'	450	Large, outermost rock, about 10 feet high, near shore line at foot of bluff	Yes
Cap	08'	824	28'	669	Top of eastern and lower of two large rocks on point	Easily
Mew	08'	760	28'	494	Low rock at toe of point 100 meters east of Cap	Easily
Lane	08'	555	28'	573	Boulder near shore in middle of bight	Yes
Sage	08'	334	28'	394	Boulder near shore east side of bight	Yes
Dub	08'	161	27'	904	Top of ledge awash at high tide	Yes
Boy	07'	1735	27'	478	Rock near shore 50 meters from mouth of stream	Yes
Bow	07'	1669	27'	120	East side of bottom of white vein	Yes
Tub	07'	1705	27'	8	A black rock	Yes
Vein	07'	1670	26'	596	West side of white vein	Yes
Jug	07'	1816	26'	193	Small peak about 150 feet high at northeast point of island	Easily
Son	08'	73	26'	144	Highest point of large outer rock 100 meters off northeast point	Easily
East	08'	102	26'	153	Whitewash on large outer rock 100 meters off northeast point	Possibly
Bight	08'	616	27'	33	Rock half a mile off shore, 1,000 meters west northwestward of northeast pt.	Unmistakeable
Otter	08'	50'	25'	168	Outer rock, awash at half tide, 1,000 meters east of northeast point	Easily
End	07'	1497	26'	45	Top of end of low projecting point, possibly 15 feet high	Yes
Cal	07'	1423	26'	257	Foot of northern and narrower of two large white veins	Unmistakeable
Sip	07'	1165	26'	349	Big black rock in shore line	Yes
Foot	07'	784	26'	456	South side of foot of wide white vein	Yes
Barb	07'	751	26'	354	Large rock near shore 100 meters off Foot	Easily
Yel	07'	260	26'	320	Large yellow rock in heavy shingle beach	Yes
Net	06'	1740	26'	10	Top of outer of two large rocks	Yes
Lew	06'	1445	25'	945	Big, sharp, curved spike of 85 foot pinnacle rock. Shows well from N or S.	Unmistakeable
Dan	06'	1002	26'	176	Top of end of small projecting point, possibly 30 feet high	Yes
Green	06'	800	26'	628	Sharp top of 300 foot hill, rough face to eastward, green slope on other side.	Easily
Ho	06'	643	26'	443	Top of big pinnacle	Easily
Cult	06'	435	26'	854	Intermittent gas light, 325 feet high, at apex of northern of twin kragas at southeast point of the island	Unmistakeable
Lim	06'	396	26'	774	Toe of white vein at end of small point beneath Cult on the east side.	Easily
Mar	06'	294	26'	835	Toe of white vein at southeastermost point of the island	Unmistakeable
Hog	06'	304	27'	29	The big rock on the outer face of the point	Yes
Twin	06'	366	26'	928	Southern of twin kragas southeast point E. Chugach Id., 300 feet high	Unmistakeable
Peck	06'	536	27'	185	Pinnacle rock about 50 feet high	Yes
Rex	06'	754	27'	308	Big rock middle of bight	Yes
Bor	06'	754	27'	807	Highest point in ledge	Yes
Hande	06'	835	27'	723	Top of big rock about 100 feet high	Yes
War	06'	1140	27'	874	Top of waterfall	Unmistakeable
Star	06'	1012	28'	295	Top of rock about 15 feet high	Easily
Har	06'	1250	28'	554	East corner white vein	Easily
Muff	06'	1410	28'	834	West side of foot of wide white vein	Easily
White	06'	1683	29'	273	Large white rock in water near the end of white horizontal vein	Easily
Coat	06'	1839	29'	577	Highest point of rock 100 meters off shore and 8 feet high	Unmistakeable
Fig	07'	660	29'	774	Small white rock in water 20 meters out from foot of bluff	Yes
Sand	07'	794	30'	36	Outcropping white rock in beach near stream	Yes
Sup	07'	647	30'	296	Top of large rock	Easily
Por	07'	729	30'	752	Top of large rock	Yes
Hat	07'	779	31'	79	Top of pinnacle rock 25 feet high	Easily
Rab	07'	1042	31'	511	Flat topped rock in heavy shingle beach	Possibly
Wye	07'	1631	31'	862	Big boulder just off Rain	Yes
Rain	07'	1650	31'	838	Pinnacle rock at foot of ridge which slopes west from Chugach I. High Pk.	Easily
Wat	08'	211	31'	726	Large rock on shore just west of small stream	Easily
Ne	08'	283	31'	651	Pinnacle rock half way between two small streams	Easily
Deep	08'	427	31'	704	Rock awash at high tide 100 meters off shore	Yes

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