4007

Form 504

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

APR 23 1928

State: Alaska

11—5613

DESCRIPTIVE REPORT.

Topog Sheet No. 4007

LOCALITY:

West Coast of Prince of Wales I.

~~Warren Island~~

El Capitan Passage

192

CHIEF OF PARTY:

T.J. Maher

4007

DEPARTMENT OF COMMERCE

U. S. COAST & GEODETIC SURVEY

Col. E. Lester Jones, Director

Descriptive Report -
Topographic sheet of north end
of
El Capitan Passage,
S. E. Alaska.

Surveyed by the Party on the

U. S. S. SURVEYOR - 1922.

L. C. Wilder,
Topographer.

Thos. J. Maher,
Chief of Party.

Descriptive Report to accompany Topographic Sheet No. of El Capitan Passage, S.E.Alaska.

This topographic survey of El Capitan Passage was made following instructions from the Director, U.S.C. & G.Survey to T.J.Maher, Commanding Steamer SURVEYOR dated February 25th, 1922.

That section of El Capitan Passage covered by this sheet is a narrow and rocky channel between Prince of Wales Island, and Kosciusko Island. The Western end of the Passage borders Shakan Strait.

LIMITS of SHEET.

This sheetccovers the Northern part of El Capitan Passage from its junction with Shakan Strait to within a mile of the point at which the Passage makes a sharp bend to the South. This includes Dry Pass.

GENERAL DESCRIPTION of SHORE LINE.

(1) Approaching El Capitan Passage from the direction of Shakan Strait the small island upon which ⊙Coop is located and the small island South of this are easily distinguished by numerous grave houses on each of these islands. Some of these houses are new and well painted. The point (Prince of Wales Island) just North of this entrance slopes slowly back to the hills with elevation of 590' and 650'. South of the entrance the hills with elevations of from 1500' to 1060' appear as a range broken in places by small hollows. Proceeding further into the passage the small island about 100 meters N.E. of ⊙Rock and the two islands upon which ⊙s:Colt and Bar are located are easily recognized. The point about 50 meters N.E. of⊙Leg appears as an island from the locality of ⊙Colt and ⊙Bar. The small island upon which ⊙He is located is an important feature, as it is located at a turn in the channel. The island has a clump of bushes at its highest part which assists in identifying it. From this locality the hill South of Dry Pass with an elevation of 1375 feet appears rather sharp and symetrical in shape.

Proceeding to the East through the Passage, when rounding the island upon which ⊙Mar is located one may see all the way through Dry Pass; the South shore of the passage in the vicinity of ⊙Sea will be in range with the center of the Pass. From this locality, West of Dry Pass, the hill of 680 feet elevation and the hills between this and △Flat are prominent.

From △Flat to the small valley North of the hill of 680 feet elevation they appear as a chain of hills.

The points on the North and South sides of the Passage near ⊙Cob slope very gradually to the water's edge and make well out at low water. When in the locality of ⊙Bag and proceeding to the East the island upon which ⊙Del is located is prominent, also the chain of hills making towards the point at ⊙Pil. The small island just East of ⊙El is heavily wooded and prominent. Rounding the point at ⊙Hat and East of this point the hills on the opposite side of 980 feet, 720 feet and 815 feet appear as a range of hills. Capitan Peak is also very prominent. The islands upon which⊙Las and △Grass are located are prominent.

(2) When passing through El Capitan Passage from East to West the ridge back of ⊙Doc with a summit of 1230 feet is prominent. The islands near ⊙s El and Del are not mistakable.

When in the locality of ⊙Ben the peaks on the opposite side with elevations 1660 feet, 1780 feet and 2120 feet are easily seen. The peak of 2120 feet elevation and the ridge to the West are bare.

When approaching Dry Pass the hill of 550 feet elevation, and the shore near ⊙Sen may be seen through the Pass. When in the locality of ⊙Slo the island at ⊙He can be seen, and the rocks at ⊙Flag and ⊙Row except at higher high water, which covers the rocks. From the island at ⊙He the island upon which ⊙Bar is located may be seen and back of them and in range, the hills on Hamilton Island. Approaching the West end of the Passage the islands upon which grave houses are located are prominent. The shore line above the high water line is almost extensively rocky ledge or boulders. At the heads of bights and sloughs, gravel overgrown with grass predominates.

There are no sand beaches in that part of El Capitan Passage covered by this sheet.

On that part of the sheet West of Dry Pass, below the high water mark, gradually sloping rock ledges exist. The islands upon which ⊙s Colt, Bar and Cup are located uncover discolored marble slopes at low water. At ⊙Slo and for a short distance to the West the beach is sheer.

Dry Pass above the high water mark is rock ledge. Below the high water mark it is almost extensively boulders of various sizes, with here and there outcropping ledges. At the part which goes dry at low water there are two ridges of rocks and ledge, the tops of which are higher in elevation than any other part of the bottom of the channel. These ridges are shown on the sheet by two lines of rocks (the conventional sign for a rock which is awash at any stage of the tide.)

An examination of these lines of rocks indicates that local fishermen and navigators must have cleared away the rocks and boulders in each of these ridges for a space of about 50 feet affording a deeper channel.

East of Dry Pass below the high water line there are more gravel and boulder beaches. The beaches in the sloughs make well out.

DANGERS.

The Western part of El Capitan Passage including Dry Pass demand careful piloting. Rocky ledges make out from almost all of the points and islands, and the shoals are all rocky ledge or boulders.

Rocky ledges make out a small distance from the two small islands at the Western entrance to the Passage.

The ledge reef about 120 meters Southeast of ⊙ Rum is extensive in size and covers at a little below high water.

The rocky points at⊙s Colt and Bar make well out.

The two rocks about 130 meters North Northwest of ⊙Leg and Alligator Rock are the most dangerous obstructions in this passage. The South east side of the island at ⊙He below the high water mark is rather sharp. The rocks at ⊙Fag and ⊙Row are covered at higher high water. Dry Pass which goes dry at low water has a bottom consisting of boulders of from one to three feet in diameter. Two ridges of these boulders extend three quarters of the way across the Pass in two places. The low water points near ⊙Ni and ⊙Sea make well out at low water.

LANDMARKS.

There are few prominent landmarks in that section of El Capitan Passage covered by this sheet. The three ledge bluffs shown on the sheet are prominent; particularly the two to the East. These bluffs are black and are very little steeper than the slopes of the hills. The house near ⊙ Doc is what remains of the village of El Capitan and may be picked up easily. The grave houses on the two islands at the West entrance to the Passage serve as a good mark for picking up the channel between these islands. A beacon constructed of boards mounted at the top of a vertical pipe has been placed on Alligator Rock.

SURVEY METHODS.

A traverse was run between △ Pass and △ Point. Back sights used were as long as obtainable. The closing error was 28 meters Northeast of Point. This error was adjusted between △ Point and △ Pass. During the progress of the work the sheet contracted approximately 8 meters per nautical mile in all directions. At the Eastern end of the sheet the contraction is not quite as large.

The declinatoire used in obtaining the magnetic meridian was slightly rusty. The meridians drawn on the sheet do not agree very well.

Elevations given represent the ground referred to high water.

The positions of all triangulation stations were computed in the field. Later, after a least square adjustment at △ Nipple, these positions were recomputed and a considerable difference was found in the two computations of the stations in the middle and Easterly end of the sheet. The position of triangulation stations on the West end of the sheet did not change enough to be plotted. All stations are plotted on this sheet as first computed and all topographic features are referred to these erroneous positions of the triangulation. △s Peak, Flat and Capitan were not used in doing the topography.

	Pass	56 09 01.96 (60.6)	
		133 27 30.14 (520.3)	
*	Point	56 09 16.63 (514.4)	
		133 19 11.79 (203.6)	As plotted on the sheet.

There is a marble quarry near ⊙As, operated by the Vermont Marble Co. The Westerly quarry pit indicated on the sheet has been providing good marketable marble. ⊙As is a derrick used to load marble onto barges.

Respectfully submitted,

L. C. Wilder,

Jr. H. and G. Engineer.

* As the maximum error in the computation was only 6 meters in long. and 1 meter in lat. the projection has not been corrected. E.P.Ellis. Jan. 21, 23

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Plane - table Positions.

Object and description	Latitude	D. M.	Longtitude	D. P.	Height	Descriptions and remarks.
Coop	56 09	276	133 27	423		W.W. on Ledge
		1580		613		
Ho	09	490	27	380		Pole and Flag
		1366		656		
Dent*	09	552	27	296		Board nailed to log
		1304		740		
Rum*	09	726	27	122		Small tripod
		1130		914		
Bog*	09	1416	27	142		Pile rocks
		440		893		
Egg	09	1638	27	139		Signal cloth tree
		218		896		
Boat*	56 09	1200	133 26	1013		W.W. on boulder
		656		22		
Tea	09	870	26	1000		Small tripod
		986		35		
Bat*	09	1527	26	915		W.W. on box
		329		129		
Bite*	09	1557	26	694		W.W. on stump
		299		341		
Ball	09	1447	26	616		Pole and Flag
		409		419		
As	09	1411	26	454		Marble derrick
		445		581		
At*	09	1410	26	384		Pole and Flag
		446		651		
Pic	09	1334	26	97		Pile rocks
		522		938		
He*	09	1211	26	123		Small tripod
		645		912		
Isle*	09	1080	26	128		Pile rocks
		776		907		
Leg*	09	1016	26	303		Pole and flag
		840		732		
Rock*	09	719	26	868		Pile rocks
		1137		168		
Mor	09	513	26	1024		Pole and flag
		1343		12		
Cove	09	474	26	876		Pole and target
		1382		160		
Cris	09	342	26	907		Pole and flag
		1514		129		
Hen	09	265	26	603		Pile rocks
		1591		433		
Dane	09	97	26	607		Flag in tree
		1759		429		
Pile	09	65	26	685		Pile
		1789		351		
Low*	09	231	26	843		No Fishing sign
		1625		193		

computed by H.L.B.

T-4007
(2)

Plane - Table Position.

Object and Description	Latitude	D.M.	Longitude	D.P.	Height	Descriptions and Remarks.
Long	56 09	53	133 26	910		Flag -- Tree
		1803		126		
Dick	09	192	26	1024		Pole and Target
		1664		12		
Colt*	09	900	26	865		Small Tripod
		956		171		
Tin	09	961	26	838		Small Tripod
		895		198		
Pup	09	1018	26	832		Small Tripod
		838		204		
Cook	09	1082	26	689		Small Tripod
		774		347		
Kil	09	1042	26	628		Pole and Target
		814		408		
Bar*	09	984	26	674		Pole and Target
		872		362		
Can*	09	1283	26	777		Small Tripod
		568		259		
Coal	09	1278	26	671		Small Tripod
		578		365		
Cup	09	1228	26	692		W.W.on Boulder
		628		344		
Ache	09	1312	26	407		Pole and Flag
		544		629		
Ant*	09	1299	26	436		Pole and Flag
		557		600		
Nac*	09	1379	25	1030		Pile Rocks
		477		5		10 ft.
Mud	09	1472	25	820		Target on tree back
		384		215		
Slo*	09	1525	25	674		Flag in Tree
		331		361		
Next*	09	1577	25	474		Flag in Tree
		279		561		
Sen *	09	1606	25	380		Small Tripod
		250		655		
Lock*	09	1691	25	131		W.W.on Boulder
		165		904		
Foot*	09	983	25	175		Flag on Old Dock
		873		864		
Out *	09	1200	25	358		Target on Stump
		656		678		
Sun*	09	1266	25	466		Pole and Flag
		590		570		
Pete	09	1482	25	580		Pole and Flag
		374		456		
Pen	09	1412	25	669		Pile Rocks
		494		367		
Bad*	09	1304	25	685		W.W.on Ledge
		552		351		
Ace	09	1124	25	702		W.W.on Log
		732		334		

computed by H.L.B.

Plane - Table Position

Object and Description	Latitude	D.M.	Longitude	D.M.	Height	Description and Remarks
Flag*	56 09	1278 578	133	25	830 206	Small Tripod
Ed*	09	1278 578		25	884 152	Small Tripod
Row*	09	1347 509		25	954 82	Pile Rocks
Fag	09	1360 496		25	944 92	Pole and Flag
Mar*	09	1476 380		25	151 885	Pole and Flag
Pot	09	1399 457		25	250 786	Pole and Flag
Bo*	09	1450 406		25	386 650	Pole and Flag
End*	09	1514 342		25	375 661	W.W.on Sm.Boulder
Old*	09	1715 141	133	24 ~~24~~	943 92	Pole and Flag
Kat*	09	1715 141		24	784 251	W.W.on Ledge
Roy	09	1744 112		24	623 412	Flag on Stump
Bit	09	1840 16		24	324 711	W.W.on Ledge
Coo	10	167 1689		24	237 798	W.W.on Boulder
Hi	10	349 1507		24	293 742	Pole and Flag
Fal	10	354 1502		24	204 831	Pole and Flag
Es	10	202 1654		24	84 951	Pole and Flag
Cow	09	1716 140		24	423 612	W.W.on Ledge
Lib*	09	1672 184		24	461 574	Pole and Flag
Man*	09	1560 296		24	501 535	W.W.on Ledge
Bel	09	1435 421		24	570 466	W.W.on Ledge
Dry*	09	1343 513		24	522 514	W.W.on Ledge
Imp*	09	1314 542		24	433 603	W.W.on Ledge
Whit*	09	1266 590		24	556 680	Pole and Flag
Cap*	09	1236 620		24	274 762	Small Tripod
Up	09	1120 736		24	72 964	Sm.Rocks on Ledge
Shel*	09	1200 656		24	266 770	Dead Fir Tree

computed by H.L.B.

Object and Description	Latitude	D.M.	Longitude	D.M.	Height	Description and Remarks
Toe *	56 09	1233	133 24	387		W.W.on Ledge
		623		649		
Top *	09	1259	24	483		W.W.on Ledge
		597		553		
Art *	09	1279	24	608		W.W.on Ledge
		577		428		
Max *	09	1242	24	655		Pole and Target
		614		381		
Sol *	09	1247	24	714		Pole and Target
		609		322		
Tom *	09	1264	24	766		Pole and Target
		592		270		
Leo	09	1258	24	842		Pole and Target
		598		194		
Fin *	09	1261	24	911		W.W.on Ledge
		595		125		
Red	09	1035	24	887		Pole and Flag
		821		149		
Wild *	56 09	1169	133 23	825		Pile Rocks
		687		211		
Cop *	09	1178	23	681		Pole and Target
		678		355		
Cos	09	1028	23	576		Mooring Pile
		828		460		
Mos *	09	1069	23	465		Pole and Flag
		787		571		
Corn *	09	944	23	230		" " "
		912		806		
Cob *	09	873	23	189		" " "
		983		847		
Ni	09	830	23	35		Target on Snag
		1026		1001		
To *	09	669	23	167		Pole and Flag
		1187		869		
Way	09	703	23	284		Target on Stump
		1153		752		
This	09	746	23	460		Target on Tree
		1110		576		
Arm *	09	854	23	613		W.W.on Rocks
		1002		423		
Ump *	09	764	133 22	675		Target on Stump
		1092		361		
Wil *	09	759	22	575		W.W.on Stump
		1097		461		
Bag	09	621	22	223		W.W.on Tree
		1235		813		
Elm *	09	187	22	262		Pole and Flag
		1669		774		
Tel *	09	469	22	534		W.W.on Board
		1387		502		

Computed by H.L.B.

Object and Description	Latitude	D.M.	Longitude	D.P.	Description and Height Remarks
Ate	56 09	628	133 22	831	Small Tripod
		1228		205	
Sea*	56 09	695	133 22	997	" "
		1161		39	
By *	56 09	593	133 21	970	Pile Rocks
		1261		66	
Blak ϕ	09	631	21	547	W.W.on Ledge
		1225		489	
Big	09	761	21	176	Pole and Flag
		1095		860	
Del *	09	259	21	208	W.W.on Ledge
		1597		828	
Hay	09	232	21	212	Tall dead Stump
		1624		824	
Bun	08	1421	21	140	"No Fishing" Sign
		435		896	
Bur *	08	1839	21	360	Pole and Target
		17		676	
Bale *	09	202	21	546	W.W.on Ledge
		1654		490	
Ev	09	189	21	615	W.W.on Ledge
		1667		421	
Be *	09	120	21	705	" " "
		1736		331	
Flo *	09	11	21	971	W.W.on Boulder
		1845		65	
Ben *	56 09	581	133 20	813	Pole and Flag below H.W.
		1275		223	
Pun	09	820	20	695	W.W.on Ledge
		1036		341	
El *	09	821	20	586	" " "
		1035		450	
Ape	09	986	20	700	" " "
		870		336	
Ex	09	1178	20	595	Small Tripod
		678		441	
Doc	09	1367	20	597	Bollard onDock
		489		439	
Lig	09	1699	20	215	S/cloth on Tree
		157		820	
Hat	09	798	20	181	Pole and Flag
		1058		855	
Pit *	09	632	20	371	Pile Rocks
		1224		665	
Tal	09	219	20	440	Tall White leaning Tree
		1637		596	
Blo *	08	1645	20	611	W.W.on Boulder
		211		425	

Computed by H.L.B.

Object and Description	Latitude	D.M.	Longitude	D.P.	Height	Description and Remarks
Own	56 09	1369	133 19	812		W.W.on Ledge
		487		224		
Seg	09	1373	19	475		Pole and Flag
		483		560		
Star	09	1121	19	259		Pole and Target
		735		777		
Cry	09	469	19	403		" " "
		1387		633		
Cold	09	400	19	718		" " "
		1456		318		
Gul	09	559	19	838		W.W.on Ledge
		1297		198		
Pil	09	795	19	1003		W.W.on Pole
		1061		33		
Po	56 09	1034	133 18	955		Pole and Target
		822		81		
Stump	09	978	18	783		Small Tripod
		878		253		
Post	09	841	18	648		" "
		1015		388		
Mid	09	867	18	784		W.W.on Ledge
		989		252		
Las	09	801	18	872		W.W.on Rocks
		1055		164		
Sop	09	237	18	876		Pole and Target
		1619		160		

Computed by L.C.W.
" " H.L.B.

More of the stations are marked by a brass tack embedded in cement

J.P. Baker

Form 537a
12—5813

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

The finished Topographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No. 4007

State . . ~~S. E. Alaska~~ ALASKA

General locality ~~West Coast~~ Prince of Wales Island.

Locality El Capitan Passage, Aneskett Pt. to Dry Pass

Chief of party . T. J. Maher

Surveyed by . . L. C. Wilder

Date of survey . October 1922

Scale . . . 1:. 10000

Heights in feet above Mean High Water

Contour interval .100 . feet.

Inked by L. C. Wilder Lettered by . L. C. Wilder

Records accompanying sheet (check those forwarded): Photographs,

Descriptive report, Horizontal angle books, Field computations,

Data from other sources affecting sheet

Plane- table Positions.

Remarks:

ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY

AND REFER TO No. 4-DM1

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON June 21, 1923.

SECTION OF FIELD RECORDS

Report on Topographic Sheet No. 4007

El Capitan Passage, Alaska.

Surveyed in 1922. Instructions dated Feb.25, 1922.

Chief of Party, T. J. Maher.

Surveyed by L. C. Wilder.

Inked by L. C. Wilder.

1. The records conform to the requirements of the General Instructions.

2. The plan and character of the work fulfill the requirements of the General Instructions.

3. The plan and extent of the survey satisfy the specific instructions.

4. The field drafting prescribed by the General Instructions was completed by the field party.

5. The junction with the survey at the western edge of the work is satisfactory. The new survey at the eastern edge of this sheet has not yet been received in the office.

6. No further surveying is required within the area of the sheet.

7. The character of the surveying and field drafting are excellent.

8. Reviewed by E. P. Ellis, June , 1923.