

4727

Diag. Cht. No 8551-2

U. S. SURVEY
L. & A.
ACC.

Form 504
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY No.
State: ~~Sea~~ Alaska

11-5013

DESCRIPTIVE REPORT.

Hydrographic Sheet No. ^N 4727

LOCALITY:

~~Danger Island~~

Prince William Sound

Montague Strait in Vicinity of

Danger Island

1927

CHIEF OF PARTY:

R. R. Luken.

4727



Looking north from Danger

Views of Danger Island.

? probably A Sig

Danger Id from A Fairview



DESCRIPTIVE REPORT
To Accompany Hydrographic and Topographic Sheet N

DANGER ISLAND

Str. SURVEYOR - - - - - R. R. Lukens, Chief of Party.

Work executed under instructions issued to the Commanding Officer of the Str. SURVEYOR.

Instructions dated Feb 3, 1927

General Description:- Danger Island is a low, wooded island about 1-1/2 miles to the S.W. of the lower extremity of Latouche Island. Danger Island is surrounded on all sides by off-lying rocks and ledges; and outcropping reefs and rocks extend to the S.W. and to the N. E. The south east side of the island is rather heavily wooded as is the N. W. portion of the island, between these two wooded areas is a low marsh, collecting rain and the storm wash from the heavy S.W. swell. This marsh extends nearly across the entire width of the island in a S.W. and N.E. line. It is lined with salt grass and marsh grass and contains much floating debris - logs, etc.

This island was formerly a fox farm. The only building on the island is a small fox feeding shed, on the northernmost extremity of the island proper. When the topographic party landed on the island a black fox made his appearance, barked and scampered off. Apparently all the foxes were not removed when the farm was removed.

There is a seal rendezvous in the warm shoal water, S.E. of \odot Bno and S.S.E. of \odot Jef. The party found about a dozen seals upon the beach, sunning.

The areas of kelp shown are very thick and heavy matted growths and cover foul and shoal ground. The growth was so thick that it was impossible to get the Motor sailer thru it for sounding, without danger of fouling the propeller.

The sector from \odot Hi to \triangle Sig to \odot One is very foul and contains much thick matted kelp. It was inspected from a skiff during the progress of topography. No attempt was made to run the sounding launch into this area or thru the kelp.

The shore line from \odot One to \triangle Cat is steep and rocky with many pinnacles close in, and offlying. The bottom drops down sharply, continuing the same steep slope presented by the S.E. side of ridge on Latouche Island. It drops off rapidly to a 38 - 40 fathoms flat off Danger Island.

The bottom is generally rocky, overlaid with gravel and shell in places.

Dangers:- The island is appropriately named, being surrounded by rocks and foul areas on all sides. They are sufficiently well shown on the sheet to need no further comment, since most are close in and avoided by boats unfamiliar with the area.

On O & G S Chart # 8523, an edition corrected to Feb. 16, 1927, there is shown a sunken rock symbol in Lat. $59^{\circ} 55' N.$, Long. $148^{\circ} 06' 77'' W.$ There is no rock here. This rock and others were put on the boat sheet in pencil and the party instructed to investigate them. The party obtained a sounding of 10 fathoms 2 feet about 20 meters from the supposed rock (see B.S. and p. 34 "b" day position 111-1/2) at a time when there was about a 5 ft. swell running in. Had there been a sunken rock there, some indication must surely have shown by breaking or curling, and there was none - particular attention was paid to this area of reported rocks. This rock is not existent.

Referring again to sheet # 8523, there is a sunken rock symbol shown in Lat. $59^{\circ} 54.9' N.$, Long. $148^{\circ} 06.3' W.$ An investigation was made for this rock and a sounding of 10 fathoms 2 feet obtained about 20 meters from the position reported for this rock. Under the same conditions as above, with a 5 ft. swell running, surely an indication of this rock would have been apparent. It is therefore believed that the report of this rock is erroneous.

In Lat. $59^{\circ} 54.9' N.$, Long. $148^{\circ} 05.1' W.$, on the same chart is a large island or reef some 100 meters long. This does not exist at the time the survey was made (August, 31, 1927).

The rock shown 1412 meters, 252° (true) from \triangle Sig, is a sharp conical shaped rock, awash at ordinary high water.

Currents, Tidal:- The tidal waters of Prince William Sound, flooding into the sound toward the N.E., separate at Danger Island, part going thru the Latouche Passage and part up Montague Strait, and ebbing out of the sound toward the S.W. from Latouche Passage and Montague Strait, join at Danger Island; consequently the currents here are varied and confused. There are eddies and whirls as the current streams wind around thru the rock passages. There was no regularity of tidal currents noted around here by the sounding party, save as mentioned.

Anchorage:- The prevailing weather and the worst storms are from the S. W. Protection from the swell and wind from the S. W. is afforded in the area between \odot Emo and \odot Fog - about 2 - 4 fathoms, rocky bottom, overlaid in some places with gravel. This is not to be recommended as an anchorage. But the survey party anchored here and found it free from swell and well protected by the trees on the island from the wind. Local fishermen use it in some cases, under severe conditions; though from the fishing banks Mac Lead Harbor is closer and provides better anchorage and protection, it is believed. Moreover, it is not far to the anchorage in Montgomery Bay, beyond this point.

No other possible anchorages were found in the area surveyed.

Survey Methods:- \triangle Danger Island is a recovered station. \triangle Sig was located by 6 D & R from \triangle Basil, and \triangle Bry on Montague Island, \triangle Dog and \triangle Cat were located by 1 D & R from the same stations.

\triangle Danger Island Rock is an old station, but it was not recovered or known of until after the work was completed. Its location checks \odot Wash, the same rock and presumably the same point of the rock, as located by a plane table and two hydrographic cuts. It

is on the sheet in pencil as it was not used by this party in the survey.

Topography, based upon these stations as control, was done by S. B. Grenell on the boat sheet projection, as an original topo. sheet. Δ Danger, \odot Fog, \odot Jef, Δ Sig were occupied and the detail rodded from them and cuts taken to the other white wash signals.

\odot Hi was occupied to check cuts to \odot El, \odot Far, \odot San, and \odot Gob.

Starting from Δ Sig, traverse was run for details and angles to Δ Dog. This section checked exactly in azimuth and distance. From Δ Dog to Δ Cat, traverse was run for shore line and signals. This section checked in azimuth, but overran Δ Cat by 12 meters. This error was within the allowable error limit, and was duly distributed between Δ Dog and Δ Cat and the shoreline corrected prior to inking.

This topography makes a satisfactory junction with T 2770 at \odot Hi and at Δ Alice which was not recovered by the signal building party, but when plotted on the sheet gave a satisfactory junction at this point. A good agreement was obtained at \odot El, \odot Fog, \odot Emo, \odot Rock, \odot Jef and \odot Gab.

The shore line on the western side of Danger Island was not rodded but the topographer sketched in this stretch by walking around the point from a set up at Δ Danger Island.

Instructions to the field party called only for enough topography to furnish shore line and signal for the work of this party.

Hydrography was accomplished using Motor Sailer # 2967. The sounding machine was operated by direct drive shaft from the main motor. 14 pound sounding leads were used.

Boat location by sextant angles to topographically located signals, using the three point fix.

Instructions to the field party called for the inshore hydrography to the limit of the ship sheet, and enough lines thru the channels to give good development and a proper junction and overlap to the work in Latouche Passage. A good agreement was obtained with the ship work on this overlap."

Geographic Names:-

- Danger Island
- Latouche Passage
- Latouche Island
- Montague Strait.

Note: Tide gauge at McLeod Harbor.

New Place Names; * No new place names.

Channels:- The channel between Δ Sig and the rock swash at high water will take 5-1/2 fathoms thru it's center, and 8-3/4 fathoms thru the deepest channel to the S.W. of the center. The channel is readily apparent from the soundings shown.

*Approved
A.P. Sowles*

Respectfully submitted

L. P. Sowles
L. P. Sowles
Aid, C & G Survey

List of Statistics
to accompany

Hydrography Sheet "N".

1927.

(Date)	(Letter)	(Vol)	(Positions)	(Soundings)	(Miles)	(Boat used)
Aug. 30	a	1	56	109	12.7	MS#2967
" 31	b	1	120	226	22.9	"
Sep. 1	c	1	77	134	15.8	"
Totals:- - - - -			253	469	51.4	

Total area: 7.1 Square Stat. Miles.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

~~LANDMARKS FOR CHARTS~~
List of P.T. positions

19

SUPERINTENDENT, U. S. COAST AND GEODETIC SURVEY:

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted:

R. P. Lukens
Chief of Party.

Dm's + Dp's, Toposheet - Danger Island.

Description <i>Name</i>	POSITION.				Datum.	Method of determination. <i>Topog.</i>	Charts affected. <i>Description</i>
	Latitude.		Longitude.				
	D. M. meters.	D. P. meters.	D. M. meters.	D. P. meters.			
<i>Rock</i>	59 54	(46) 1761	148 06	(842) 90		<i>Highest pt. of rck.</i>	
<i>Wash</i>	59 55	(1755) 102	148 05	(320) 612		<i>" " "</i>	
<i>Fog</i>	59 55	(1137) 720	148 04	(326) 606		<i>w.w.</i>	
<i>EMO</i>	59 55	(847) 1010	148 04	(122) 810		<i>w.w.</i>	
<i>Jet</i>	59 55	(834) 1023	148 05	(710) 222		<i>Dead tree.</i>	
<i>Hi</i>	59 56	(293) 1564	148 03	(192) 741		<i>w.w.</i>	
<i>Far</i>	59 56	(406) 1451	148 03	(632) 300		<i>w.w.</i>	
<i>San</i>	59 56	(918) 939	148 02	(141) 791		<i>w.w.</i>	
<i>Gob</i>	59 56	(1409) 448	148 02	(226) 706		<i>w.w.</i>	
<i>One</i>	59 56	(1527) 330	148 02	(816) 116		<i>w.w.</i>	
<i>Bay</i>	59 56	(1104) 753	148 01	(525) 407		<i>w.w.</i>	
<i>Out</i>	59 56	(1065) 802	148 01	(839) 93		<i>w.w.</i>	
<i>Mid</i>	59 56	(387) 1470	148 59	(358) 574		<i>w.w.</i>	
<i>Low</i>	59 56	(172) 1685	148 59	(745) 187		<i>w.w.</i>	
<i>End</i>	59 57	(1656) 201	147 58	(257) 675		<i>w.w.</i>	
<i>Pin</i>	59 57	(1440) 417	147 58	(682) 250		<i>w.w.</i>	
<i>EI</i>	59 56	(1524) 333	148 09	(578) 354		<i>w.w.</i>	

A list of objects which are of sufficient prominence for use on the charts, together with a description of the same, must be furnished in a special report on this form, and a copy of such report must be attached by the Chief of Party to his descriptive report. The selection, determination, and description of these points are of primary importance. The description of each object should be short, but such as will identify it; for example, standpipe, water tower, church spire, tank, tall stack, red chimney, radio mast, etc. Generally, flagstaves and like objects are not sufficiently permanent to chart.

February 10, 1928.

(11)

Division of Hydrography and Topography:

Division of Charts:

Tide reducers are approved in
1 volumes of sounding records for

HYDROGRAPHIC SHEET 4727

Locality: S.W. ALASKA. MONTAGUE STRAIT.

Chief of Party: H. E. LAKERS, 1927.
Plane of reference is M L L W
4.3 ft. on tide staff at Madgeed Harbor.

Condition of records satisfactory except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A.M. or P.M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of each day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.

Glavin

Chief, Division of Tides and Currents.

Records Section
Hyd. 4729

Chief of Party R.R. Lukens - Surveyed by S.B. Grenell
Protracted by L.P. Sowles
Soundings plotted by L.P.S.
Verified and inked by J.Fleming. March 6-1928

- 1 Records conform to general instructions
- 2 Depth curves cannot be completely drawn
- 3 Field plotting complete and with two exceptions very accurate - only two positions were found to be in error

Certain rocks shown in pencil on the boat sheet were not drawn on the smooth sheet - These were drawn by the undersigned.

J. Fleming

March 6-1928

IN REPLY ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY
AND NOT THE SIGNER OF THIS LETTER

AND REFER TO No. 11-DEM

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

WASHINGTON

August 17, 1928.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4727

Surveyed in 1927

Instructions to Commanding Officer, SURVEYOR, dated February 3, 1927

Chief of Party, R. R. Lukens.

Surveyed by S. B. Grenell.

Protracted and soundings plotted by L. P. Sowles.

Verified and inked by John Fleming.

1. The records conform to the requirements of the General Instructions.
2. The plan and character of the development fulfill the requirements of the General Instructions, except that the passage between Latouche Island and Danger Island should have been developed a little more closely.
3. The depth curves can be completely drawn except where prevented by kelp, and at one place in the area noted above.
4. The field plotting was completed to the extent prescribed in the General Instructions with the exception of transferring to the smooth sheet a few rocks close inshore which were shown in pencil on the boat sheet.
5. None of the drafting done by the field party had to be done over in the office.
6. The work on this sheet overlaps H. 2833, R. B. Derickson, 1906, on the north. Two 4-fathom soundings appearing on the above sheet fall outside the 5 fathom curve as delineated on the new sheet. These are in the area which should have been more thoroughly developed. Two sunken rocks on H. 2833 were not found, and the descriptive report of H. 4727 declares them to be non-existent,

basing this statement on having obtained 10 fathoms near the location of each of these rocks, and the fact that a 5 foot swell was running without causing a breaker. It is noted that there was 10 feet of tide at the time of sounding. It appears that the existence of these rocks has not been disproved. Their existence is clearly indicated in the records of H. 2833, 84 and 86 O. In all other respects the new work shows good agreement with H. 2833.

The work joins sheet H. 4730 on the south and west. This junction should be taken up in the review of that sheet.

7. Further development of the passage between Latouche and Danger Islands should be done in the future, and the two rocks above noted be either located or disproved.
8. An island is shown on the chart 500 meters south of \triangle Danger. The descriptive report states that this island does not exist, and a sounding of 35 fathoms was obtained within 50 meters of its position. This island does not appear on the original topographic sheet No. 2770, but is shown on H. 2833. It is possible that a meaningless pencil mark was erroneously inked in on that sheet.
9. It appears that the topography was done on the boat sheet which does not meet the requirements of the General Instructions for topographic surveys. The topography of Danger Island was done previously on T. 2770, in 1906. The topography done in 1927 on Danger Island does not agree well in detail with T. 2770, but is probably more nearly correct, having been done on a larger scale. The western side of the island, however, which was sketched is considerably in error as proven by a photograph of the island appended to the descriptive report.
10. The plan and scope of the surveying are good, with the exceptions noted. The field drafting is excellent.
11. Reviewed by M. O. Witherbee, March 22, 1928.

Approved:

Chief, Section of Field Records (Charts)

Chief, Section of Field Work (H. & T.)

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.
4727

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. N

REGISTER NO. **4727**

C. & G. SURVEY
L. & A.
FEB 2 1928
Acc. No.

State S.W. Alaska

General locality Prince William Sound
Montague Strait, Vicinity of Danger I.

Locality Danger Island

Scale 1:20,000 Date of survey September, 1927

Vessel Surveyor

Chief of Party T. R. Lukens

Surveyed by S. B. Grenell

Protracted by L. P. Sowles

Soundings penciled by L. P. Sowles

Soundings in fathoms feet

Plane of reference M.L.L.W. at McLeod Hbr.

Subdivision of wire dragged areas by

Inked by J. Fleming

Verified by J. F.

Instructions dated February 3rd, 1927

Remarks:

4727 Add'l. Wk.

4727 Add'l. Wk.

Form 504

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

....., Director

State: Alaska

DESCRIPTIVE REPORT

Topographic } Sheet No. 4727 Add'l. Work
Hydrographic }
~~*Additional Work on Original Sheet*~~

LOCALITY

Prince William Sound.

Vicinity of Danger Island

1928

CHIEF OF PARTY

R.R. Lukens

DESCRIPTIVE REPORT

to accompany

Hydrographic Sheet No. 4727

(With additional soundings between

Latouche and Danger Island.)

Ship SURVEYOR

R.R.Lukens- Chief of Party.

Executed under Directors Orders

April 10,
~~Feb. 18,~~ 1928.

SURVEY METHOD:

Standard launch hydrography with sextant fix control on topographic signals located in 1927 by Str. Surveyor. All soundings in less than 15 fathoms were by hand lead. All cuts to rocks were made with the launch dead in the water.

DANGERS:

A careful investigation of the area between Latouche and Danger Island as requested in the instructions was made and as shown on the sheet a least depth of 16 feet was found in a thick bed of kelp. When this area was sounded in 1927 there was no kelp at this point. The bottom is rocky and very broken and uneven.

In Lat. 59-55-plus 1100 m. and Long. 148-04 minus 10 m. a sunken rock was found in a small patch of kelp. It was located by breakers caused by tide rips and a heavy ground swell.

Two rocks south west of Danger Island which were indicated for investigation on the sheet were located at this same time. A search was made for them in 1927 with a moderate sea running, but no indications were found. However, at this time a combination of heavy ground swell, cross tide rips and extreme low water, showed both rocks breaking. Because of the tide rips it was unsafe to approach

the rocks too closely but a number of careful positions and cuts with estimated distances were taken and very good locations secured. These rocks were breaking for less than an hour under the conditions noted above.

TIDES:

All soundings were reduced to M.L.L. Water on the staff at Seward, Alaska.

Respectfully submitted,

Approved & forwarded:

R. R. Lukens
R. R. Lukens,
Chief of Party.

Samuel B. Grenell
Samuel B. Grenell
J.H.&G. Eng.

Smooth sheet inspected
R. R. Lukens.

STATISTICS

Date	Day	Volume	Positions	Soundings	Miles
June 12	A	1	66	219	6.7

(FOR FILES SECTION OF FIELD RECORDS)

E.A.L.

February 18, 1929

Division of Hydrography and Topography:

Division of Charts:

Tide Reducers are approved in
1 volume of sounding records for

HYDROGRAPHIC SHEET 4727 add. wk

Locality: Danger Island, S. W. Alaska.

Chief of Party: R. R. Lukens in 1928.

Plane of reference is Mean lower low water, reading
2.6 ft. on tide staff at Seward, Alaska.
~~XXXXXXXXXXXX~~

Condition of records satisfactory except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A.M. or P.M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks..

Paul C. Whitney

Chief, Division of Tides and Currents.

Section of Field Records
Report on Hyd. Sheet No 4727 (Additional Work)
Surveyed in June 1928.

Instructions dated April 10, 1928 (Surveyor)

Chief of Party - R. R. Lukens

Surveyed by - S. B. Grenell

Protracted and plotted by - P. L. Bernstein

Inked and verified by - J. G. Ladd

This work consists of a close examination of the shoal area between Latouche and Danger Island, and the location of three sunken rocks. Two of these, southwest of Danger Island, were located in 1906 (H. 2833). These new locations are considered to be much more accurate and should be accepted.

The records are clear and conform to requirements.

The plan and extent of development satisfies the specific instructions.

The usual amount of field drafting was well done.

Reviewed by R. L. Johnston

Mar. 1, 1929.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. Add'l. Wk.

HYDROGRAPHIC TITLE SHEET

Additional Work on original Sheet

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. 4727 Add'l. Wk.

REGISTER NO.

State Alaska

General locality Prince William Sound

Locality Vicinity of Danger Island

Scale 1:20,000 Date of survey July, 1928

Vessel Str. SURVEYOR

Chief of Party R.R. Lukens

Surveyed by S.B. Grenell

Protracted by P.L. Bernstein

Soundings penciled by P.L. Bernstein

Soundings in fathoms ~~feet~~

Plane of reference M.L.L.W. Seward

Subdivision of wire dragged areas by

Inked by John G. Ladd

Verified by J.G.L.

Instructions dated Feb. 18, 1928

Remarks: Additional Work