

32 lbs
43 lbs

5966 ✓

U. S. COAST & GEODETIC SURVEY
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Form 504
Ed. June, 1923

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. PATTON, Director

State: ALASKA

DESRIPTIVE REPORT

Topographic } Sheet No. K - 2335
Hydrographic }

LOCALITY
~~KRENITZIN GROUP, ALEUTIAN ISLANDS~~
~~AKUTAN PASS & WEST SIDE OF~~

AKUTAN ISLAND, ALEUTIAN
AKUTAN PASS TO NORTH HEAD
ISLANDS, ALASKA.

19 35

CHIEF OF PARTY
A. M. SOBIERALSKI, H. & G. E.

U. S. GOVERNMENT PRINTING OFFICE: 1926

T

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

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. *8560*

Field No. K - 2335

5966
REGISTER NO. **5966**

State ALASKA

General locality ~~Krenitzin Group~~ AKUTAN ISLAND *AKUTAN ISLAND*

Locality AKUTAN PASS & ~~WEST SIDE AKUTAN ISLAND~~ *to North Head*

Scale 1:20,000 Date of survey JUNE - SEPTEMBER, 19 35

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

Chief of Party A. M. SOBIERALSKI

Surveyed by A. M. SOBIERALSKI, ROGER C. ROWSE & IRA T. SANDERS

Protracted by C. J. WAGNER

Soundings penciled by C. J. WAGNER

Soundings in fathoms feet

Plane of reference M L L W

Subdivision of wire dragged areas by _____

Inked by C. F. McKenny, G. Everett

Verified by G. H. Everett

Instructions dated APRIL 13, 19 34

Remarks: _____

DESCRIPTIVE REPORT
to accompany
HYDROGRAPHIC SHEET FIELD No. K-2335, 1935
Scale 1:20,000
Season of 1935 -o- Project No. 176

A. M. SOBIERALSKI, Commanding -o- U. S. C. & G. S. S. SURVEYOR

Instructions dated: April 13, 1934

Instructions:

This survey was made under authority of Instructions to the Commanding Officer of the SURVEYOR, dated April 13, 1934.

Survey Methods:

The soundings on this sheet are controlled by sextant fix positions, from objects or signals on shore located according to Standard Practice, either by triangulation or by topography. The launch soundings were secured by wire and handlead. The ship soundings were secured by fathometer with occasional wire soundings for comparison. A few handlead soundings from the ship were taken as a check on the fathometer on the shoal about 2 miles southwest of Δ FAST, Latitude 54 - 04.4, Longitude 166 - 08.0. The fathometer soundings were corrected for temperature, salinity, index, etc. in accordance with the Hydrographic Manual.

Discrepancies:

There is a lack of any marked discrepancies on this sheet. The junction of the ship and launch soundings is satisfactory. The junction with adjacent sheets this season is also satisfactory, except that two short lines, as follows, would make a better looking junction with sheet Field No. 4135; one short line, Latitude 54 - 08, Longitude 166 - 08.8 and one short line, Latitude 54 - 16, Longitude 166 - 01.0.

*Small
Holidays
refer to
JGL*

Ship:

A 25 fathom sounding position 34-35 "F", (Latitude 54 - 10.2, Longitude 166 - 06.9) in an area averaging 30-32 fathoms should be investigated. A 28 fathom sounding (uncorrected) was located on sheet 4135 in this area.

Motor Sailer:

Three 29 fathom soundings between two 12 fathom soundings - position 53 - 55 "j" (Latitude 54 - 08.2, Longitude 166 - 08.0) were checked at time of sounding and are correct.

Three soundings of 11, 13 and 14 fathoms respectively between positions 6 - 8 "c", 400 meters southeast of Δ CEMENT, in-shore from shoaler soundings were checked at time of sounding and are correct.

Lat 54-07.2 / Long 166-06.9

Dangers:

Generally speaking the area covered by this sheet is free from dangers which are a serious menace to navigation. With the exception of the reef one mile north of \triangle CEMENT, no rocks lie more than 350 meters off shore. Offlying rocks close inshore bound the most prominent points of land. Kelp marks these areas of danger.

(a) The point 1.25 miles north northwest of \triangle TRIP-LET has a foul area making off 300 meters northwest. This area is studded with numerous rocks and marked by heavy kelp. Small boats keeping outside of the kelp will encounter no dangers.

(b) A rock awash at half tide lies 365 meters west of \odot Sol. This rock is marked by kelp.

(c) Numerous rocks bare at high water, rocks awash and sunken rocks bound the shoreline between signals \odot Ask and \odot Mon. The kelp line extends outside of all of them. They offer no dangers if small boats keep clear of the kelp.

(d) Four rocks awash southwest of \triangle FAST, the outer one being 260 meters southwest of \triangle FAST. This rock bares one (1) foot at M L L W, and is marked by kelp. A least depth of 4-4/6 fathoms in this area was found 75 meters northwest of this rock.

(e) A large rock with an elevation of two (2) feet lies in Latitude $54 - 06.51$, Longitude $166 - 06.55$. Twelve (12) fathoms can be carried up ^{to} the face of this rock. There is no kelp around it. Several other rocks lie inshore from this one, but they are inside the kelp line.

(f) A rock awash at M L L W lies 135 meters southeast of \triangle CEMENT, blocking the passage between \triangle CEMENT and the point.

(g) A large offshore reef lies one (1) mile north of \triangle CEMENT and northwest of Reef Bight. This reef is marked by heavy kelp and studded with numerous rocks bare 3 feet at M L L W. Small boats can carry 3 fathoms between this reef and the beach by keeping clear of the kelp just east of the reef.

³₂₄
(h) A sunken rock marked by kelp lies off Lava Point, 90 meters northwest of \odot Tab.

(i) A sunken rock covered 3 feet marked by kelp, lies off Lava Point, 135 meters west of \odot Un.

(j) A rock bare 2 feet at M L L W lies 60 meters northwest of \odot Rock.

Dangers - continued:

- (k) A rock, elevation 8 feet, lies 175 meters northwest of © Abe.
- (l) Two rocks, bare 4 feet at M L L W lie 160 meters northwest of © Rod.
- (m) A rock awash at M L L W lies 210 meters northwest of © Hot.
- (n) A rock bare 2 feet at M L L W lies 115 meters northeast of © Lip.
- (o) A rock awash at M L L W lies 260 meters north of © Pil.

Currents:

Currents with an estimated maximum velocity of 2 knots occur on the flood tide along the west shore of Akutan Island as far north as Reef Point. The 8 fathom shoal at Latitude 54 - 04.4, Longitude 166 - 08.0 is marked with swirls and heavy tide rips on both the ebb and flood. Moderate tide rips have been observed as far north as Lava Point on flood tide with a north wind blowing. The area immediately west of the reef off Reef Bight is usually quite disturbed during flood tides, and small boats desiring to pass this point can save time by passing to the eastward of the reef.

Currents off the point at North Head are negligible. They become more pronounced, especially on the ebb, near Lava Point, where a maximum velocity of one (1) knot has been observed.

Channels:

There are no channels on this sheet, except that small craft can, if desired, pass east of the reef off Reef Bight. From a point 1/8 mile west of the highwater rock off Reef Point a course of 20° (True) will clear the eastern edge of the kelp on the reef and will pass 1/8 mile off Lava Point.

North Head open of Lava Point is a good range to clear this reef if passing to northward of it.

Anchorage:

Anchorage may be had in the bight north of Cape Morgan, in 10 fathoms, sandy bottom. This anchorage offers protection only during northerly or easterly weather. (See Coast Pilot Notes, 1935).

(b) Small craft sometimes anchor in Reef Bight in 5 - 6 fathoms rocky bottom. This offers protection only from the south and east, and is not recommended for anchorage except in an emergency.

Anchorage - continued:

(c) Small craft can secure some protection from easterly and southerly weather in the small bight south of Lava Point, in 5 fathoms, sandy bottom. (See Coast Pilot Notes, 1935).

Comparison with Previous Surveys:

Previous surveys in this area were in the nature of a reconnaissance and where discrepancies occur this survey should be accepted as correct.

On the overlap with Hydrographic Sheet Reg. No. 5745 it is noted that the fathometer soundings of last year average 2 fathoms shoaler than on this sheet. That part of Sheet Reg. No. 5745 falling on this sheet was re-surveyed.

Geographic Names:

The small bight just south of Lava Point (Latitude 54 - 09.5, Longitude 166 - 05.0) has been assigned the name of Lava Bight. So far as is known it has no previously known name.

Respectfully submitted,



Ira. T. Sanders,
Jr. H. & G. E.

Approved & forwarded:



A. M. Sobieralski,
Commanding Officer,
U. S. C. & G. S. S. SURVEYOR

STATISTICS TO ACCOMPANY

HYDROGRAPHIC SHEET FIELD No. K-2335

<u>Date</u>	<u>Day</u>	<u>Vol.</u>	<u>No. Positions</u>			<u>No. Soundings</u>			<u>Statute Miles</u>		
<u>SURVEYOR</u>											
6/26	A	1	144			667			49.0		
6/27	B	1-2	230			926			52.5		
6/28	C	2	90			385			23.0		
7/8	D	2	14			54			5.7		
7/9	E	2	181			692			64.5		
7/22	F	2	61			225			19.4		
8/15	G	3	73			389			37.6		
8/17	H	3	25			129			11.4		
		Total:	818			3467			263.1		

MOTOR SAILER

<u>Date</u>	<u>Day</u>	<u>Vol</u>	<u>No. Positions</u>			<u>No. Soundings</u>			<u>Statute Miles</u>		
			<u>Wire</u>	<u>H.L</u>	<u>Total</u>	<u>Wire</u>	<u>H.L</u>	<u>Total</u>	<u>Wire</u>	<u>H.L</u>	<u>Total</u>
7/9	a	4	41	22	63	73	59	132	6.6	2.2	8.8
7/10	b	4	53	82	135	103	211	314	8.4	8.5	16.9
7/17	c	4	51	16	67	95	46	141	3.0	6.7	9.7
7/23	d	4	61	9	70	117	22	139	9.5	1.5	11.0
8/15	e	4-5	81	68	149	156	217	373	12.8	11.1	23.9
8/16	f	5	114	47	161	213	148	361	16.0	10.0	26.0
8/17	g	5-6	121	11	132	227	31	258	20.2	1.3	21.5
9/6	h	6	147	46	193	262	117	379	17.8	7.0	24.8
9/7	j	6-7	108	70	178	194	217	411	12.5	9.1	21.6
		Total:	777	371	1148	1440	1068	2508	106.8	57.4	164.2

	<u>Positions</u>	<u>Soundings</u>	<u>Statute Miles</u>
Total for sheet:	1966	5975	427.3
Area in square statute miles:	55.0		

LIST OF SIGNALS
to accompany
HYDROGRAPHIC SHEET FIELD No. K-2335

Triangulation Locations:

Trip	Triplet 1901-34
N. Trip	North Triplet Rock, 1934
Fast	Fast, 1934
Cement	Cement, 1934
Lava	Lava, 1935
North	North Head, 1935
Falls	Falls, 1935

Topographic Locations:

Topo. Sheet Field Letter K-D-1935

Tug	Gut	Gat
Pup	Mis	Nit
Sin	Ike	Ked
So	Sol	Cod
Doc	Wad	Ton

Topo. Sheet Field Letter K-C-1935

Toe	Din	Bak	Rock	Lat	Min	Low
Jan	Nap	Zak	Doge	Kit	Set	Lop
Pan	Sun	Gro	Pug	Up	Dog	Abe
Run	Hit	Sot	Slo	Rat	Zo	Lub
Dig	El	Win	Lit	Pow	She	Imp
Mar	At	Tab	Pik	Mex	Crag	Gus
Jig	Man	Pox	Sex	Hel	Ark	Nub
Ask	Los	Out	Ava	Rod	Tar	
Bab	Law	Art	Pa	Cat	Nut	
Sat	Mon	Ax	Elo	Pin	Cove	
Awl	Su	Log	Rat	Pil	Hot	
Tit	Eg	Tim	Try	Ned	Lip	
Wat	Ty	Old	Nag	Wop	Stu	
Leg	Nit	Un	Beach	Stik	Top	

Topo. Sheet Field Letter K-A-1935

Ale
Dry
Fug

d.c.c.

TIDE NOTE FOR HYDROGRAPHIC SHEET

April 7, 1936.

Division of Hydrography and Topography:

✓ Division of Charts: **Attention: Mr. E. P. Ellis**

Tide Reducers are approved in
7 volumes of sounding records for 5966

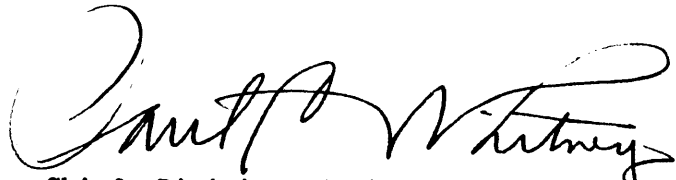
HYDROGRAPHIC SHEET

Locality **Adutan Pass to North Head, Aleutian Islands, Alaska.**

Chief of Party: **A. M. Sobieralski in 1935**
Plane of reference is **mean lower low water reading**
4.0 ft. on tide staff at **Malga Bay**
8.7 ft. below B.M. 1
3.7 ft. on tide staff at **Dutch Harbor**
12.5 ft. below B.M. 1

Height of mean high water above plane of reference is 2.9 ft. at **Malga Bay**; 3.4 feet at **Dutch Harbor.**

Condition of records satisfactory except as noted below:


Chief, Division of Tides and Currents.

MEMORANDUM FOR THE DIRECTOR

DATE: 11/15/58

RE: [Illegible]

5937
5940
5858

On 11/15/58, [Illegible]

[Illegible]

[Illegible]

[Illegible]

[Illegible]

[Illegible]

[Illegible]

[Illegible]

GEOGRAPHIC NAMES
 Survey No. **H5966**

On Chart No. **8860**
 On previous survey No. **72543**
 On U. S. quadrangle Maps
 From local information
 REPT. VS BG
 P. O. Guide or Map
 Rand McNally Atlas
 CH 997 8802
 U.S. Light List
 KH 5966

Name on Survey	A	B	C	D	E	F	G	H	
<u>Bering Sea</u> ✓	*	✓			✓			✓	1
<u>North Head</u> ✓	*	✓			✓			✓	2
<u>Akutan I</u> ✓	*	✓			✓			✓	3
<u>Lava Point</u> ✓	*	✓							4
<u>Lava Bight</u> ✓								*	5
<u>Reef Point</u> ✓								*	6
<u>Reef Bight</u> ✓	*	✓							7
<u>Red Bluff</u> ✓	*	✓							8
<u>Flat Bight</u> ✓	*	✓						✓	9
									10
									11
									12
									13
									14
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									16
									17
									18
									19
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									22
									23
									24
									25
									26
									27

Names underlined in red approved
 by *[Signature]* on 5/5/36

C

H5966

Remarks

Decisions

	Remarks	Decisions
1		
2		
3		
4		
5	<i>prepared by party; as they are not of com-</i>	<i>Lava Point</i>
6	<i>plementary to the "REEF BIGHT" "Lava Pt"</i>	<i>Reef Point</i>
	<i>charts, they are approved</i>	
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		

Field Records Section (Charts).

HYDROGRAPHIC SHEET NO. **5966**

C The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet	.1966.
Number of positions checked	.178...
Number of positions revised	..3...
Number of soundings recorded	.5975.
Number of soundings revised	..5...
Number of signals erroneously plotted or transferred

Date: *May 5, 1935*

Verification by *G.H. Everett,*
Inked by C. McKenny, Everett
Review by *John G. Ladd*

Time: *43½ hrs* } *Total 75½ hrs*
32 hrs }
Time: *12 hrs.*

HYDROGRAPHIC SURVEY NO. 5966

Smooth Sheet 1

Boat Sheet 1 2 cloth tracings

Sounding Records 7 Vols. _____

Descriptive Report yes

Title Sheet yes

List of Signals yes

Landmarks for Charts (Form 567) yes

Statistics yes

Approved by Chief of Party yes

Recoverable Station Cards (Form 524) No

Special Chart for Lighthouse Service No
(Circular Nov. 30, 1933)

Remarks _____

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
 DESCRIPTIVE REPORT
~~PHOTO STAT OF~~

No. H **5966**

~~NOV 1935~~

received
 registered
 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		
✓ 25	<i>SOT</i>	<i>Pages 2 + 3 + 4 - D.R.</i>
26		
✓ 30		<i>Currents - Page 3 - D.R.</i>
40		
62		
63		
82		
83		
88		
90		

RETURN TO

82	
----	--

G. A. Green April 1, 1936

VERIFIERS REPORT ON H-5966 (1935)

For the most part the records conform to the requirements of the General Instructions with the following exceptions:

- (1) Fractions of fathoms were plotted only up to 10 fathoms. ✓
- (2) Color of the day letters on the title page does not correspond with the color used on the sheet for launch. The yellow color used on the sheet for the launch shows up very poorly. ✓

The field plotting was very well accomplished.

The usual depth curves may be completed except for those curves that come in close to shore and within the foul areas. These are the one, two, three, five and a short section of the ten fathom curves. ✓

Junctions -

Junction with H-5745 (1934) is generally one fathom deeper than adjoining sheet. ✓

Junction with H-5949 (1935) is good. This junction was made on H-5949 because of lack of space on this sheet.

Other joining sheets have not been verified to date and have not been made. It is on these sheets in which the D. R. reports of two slight discrepancies in junctions. See VIEW p. 1, 6. ✓

Remarks -

Vol. I, pg. 21, pas 107A contains a note on the general limits of tide rips. It was considered that there were sufficient notes plotted to outline the general limits. ✓

Topo sheets covering this area. To date these sheets have not been diagrammed. The field numbers are K-D-35 (1935) and K-C-35 (1935). The topography was accomplished by the plane table method. ✓

Vol. II pg. 43, par 18c. Rock awash noted in the records was rejected by the field plotter. There is no rock shown on the boat sheet and the rejection was accepted. ✓

Current Notes. See Vol. II pg. 11, Pa 71c. Lat. 54-11.5; Long. 166-03.4
Vol. II, pg. 18 Lat. 54-14.6; Long 165-55.7,
Vol. II, pg. 68 Lat. 54-06.5; Long 166-06.7 and elsewhere.

Current notes were plotted in field with arrows designating the direction but were not inked in the office series there is no statement as to the means by which direction was accurately obtained. It was considered that they are from visual observations. ✓

Lat. 54-13.4; Long 165-58.7 and lat 54-13.3; Long 165-58.2

See positions 50f, and 76f. These positions were noted as being "100 m off beach". The rocks awash in this locality located by topo were not mentioned although there was only 1ft. of tide at time. ✓

© Nit. Lat. 54-03.3; Long 166-03.1 is called signal "Net" on K-D-35 ✓

There is another signal "Nit" at Lat. 54-08.4; Long 166-06.1. The two signals "Nit" originate with two separate topos, ✓

Rock bare above MHW. Lat. 54-06.5; Long 166-06.5 (Topo K.C.35). Topo shows it 2ft. Elevation. From hydro records it bares 3ft above MHW (Vol. II, pg. 37) ✓

Rock Lat. 54-13.4; Long. 165-58.65 shown as bare rock on Topo sheet but changed on hydro sheet to "rock awash at MHW" from note in record. ✓

Note added to T-4932...
That rock is awash MHW,

Submitted May 5, 1935
G. Everett

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5966 (1935) FIELD NO. K-2335

Akutan Pass to North Head, Akutan Island, Alaska
Surveyed in 1935

Instructions dated April 13, 1934

Hand Lead, Machine and
Fathometer Soundings.

3 Point fixes on shore signals.

Chief of Party - A. M. Sobieralski
Surveyed by A. M. Sobieralski, R. C. Rowse
and I. T. Sanders
Protracted by - C. J. Wagner
Soundings penciled by - C. J. Wagner
Verified and inked by - G. Everett and C. F. McKenney

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual except as follows:

- a. The use of yellow ink for the day letters of the motor sailer proves to be very unsatisfactory and is contrary to par. 62 of the Hydrographic Manual.
- b. Important hydrographic features such as rocks, etc., referred to in the remarks column of the volumes were not indexed on the index pages of the respective volumes as called for in par. 60b.

The Descriptive Report is complete and satisfactorily covers all items of importance.

2. Compliance with Instructions for the Project.

The survey complies with the instructions for the project.

3. Shoreline and Signals.

The shoreline and topographic signals originate with T-4932 (1935) and T-6459 (1935).

4. Sounding Line Crossings.

No regular system of cross lines were run, however, those that occur in the normal development of the work together with the parallel adjacent lines are in good agreement.

5. Depth Curves.

The usual depth curves may be satisfactorily drawn, including most of the 5 fathom and parts of the 3, 2, and 1 fathom curves.

6. Junction with Contemporary Surveys.

- a. Satisfactory junctions are made with H-5949 (1935) on the south and H-5971 (1935) on the north.
- b. The junction with H-5973 (1935) is satisfactory except that additional lines should have been run in Lat. $54^{\circ} 08.3'$ Long. $166^{\circ} 09.'$ and at the northwest junction of the two sheets to conform to the required spacing of lines and to better develop the 100 fm. depth curve.
- b. The junctions with H-5745 (1934) shows some discrepancies of one and two fathoms, the soundings in the present survey being the deeper. However, considering the depths involved, 35 to 45 fathoms, the junction is considered satisfactory.
- d. The junction with H-5970 (1935) on the northeast will be considered in the review of that survey.

7. Comparison with Prior Surveys.

a. H-2541 (1901)

This survey on a 1:60,000 scale is very sparsely developed. It contains less than 150 soundings that fall within the limits of the present survey. Although there are no conflicts between the soundings of the two surveys, the larger scale and the greater development on the present survey makes unnecessary the use of the old survey for charting purposes.

b. H-2547 (1901)

This survey, a detailed development of "Reef Bight" on a scale of 1:20,000 is in good agreement with the present survey.

8. Comparison with Chart No. 8860 (New Print dated March 19, 1935)

Within the limits of the present survey the chart is based on surveys discussed in the foregoing paragraphs and contains no additional information that needs consideration in this review with the following exception:

- a. The charted 80 and 19 fathom soundings at Lat. $54^{\circ} 04.9'$ Long. $166^{\circ} 09.8'$ and Lat. $54^{\circ} 04.8'$ Long. $166^{\circ} 08.4'$ respectively originate with H-2541 (1901) as a 30 and 15. These soundings were correctly charted originally but the chart was redrawn about 1913 and they were inadvertently changed to an 80 and 19, due apparently to the poor legibility of the figures on the chart used.

9. Field Plotting.

The field plotting was excellent.

10. Additional Field Work Recommended.

When work is again resumed in this locality the following areas should be further developed:

- a. The area in the general vicinity of lat. $54^{\circ}04'$, long. $166^{\circ}07'$ where 12 and 13 fathom soundings are shown surrounded by deeper waters.
- b. The areas along the junction with H-5973 (1935) as mentioned in par. 6b.

11. Superseding Old Surveys.

Within its limits the present survey supersedes the following surveys for charting purposes:

H-2541 (1901) in part
H-2547 (1901) entirely

12. Reviewed by - John G. Ladd, July 11, 1936.

Inspected by - A. L. Shalowitz.

Examined and approved:

K. T. Adams
K. T. Adams,
Asst. Chief, Division of Charts.

L. O. Robert
Chief, Division of Charts.

J. L. Peacock
Chief, Section of Field Work.

Stude
Chief, Division of H. & T.

Applied to drawing of Chart No. 8860.

S.B. Maize Jan 27 1937

Applied to drawing of Chart No. 8802

S.B. Maize June 1937

Applied to new compilation of Chart No. 9007 (extended)

S. P. Aug. 1938

Applied to compilation of chart 8720

Apr. 14, 1943 G.H.S.