

6527

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES

JAN 22 1940

Ass. No. _____

6527

Form 504
Rev. April 1935
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

~~XXXXXXXXXX~~ } Sheet No. 240139
Hydrographic

State Alaska Aleutian Islands

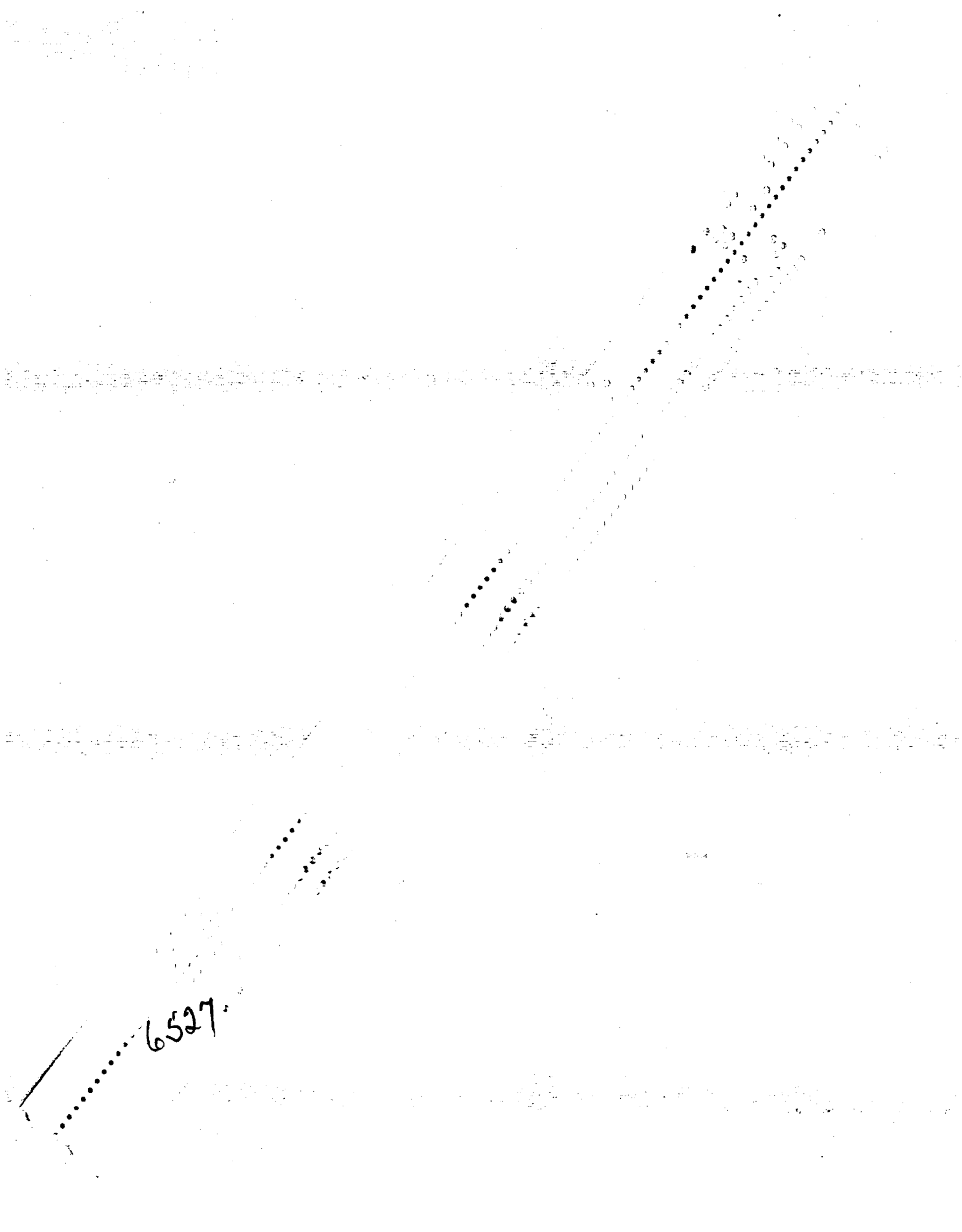
LOCALITY
Aleutian Trough
~~Aleutian Deep Line~~

~~(SE Unnak Id. to S. Unalaska Id.)~~

South of Unalaska Island.

1939

CHIEF OF PARTY
R. L. Schappe



6527

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

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. 240,139 **H6527**

REGISTER NO.

State ~~Alaska~~ Aleutian Islands

General locality ~~Aleutian Islands~~ Trough

Locality ~~SE Unalakleet Island to S. Unalaska Island~~ South of

Scale 1:240,000 Date of survey Aug. 27 and 28, 1939

Vessel SURVEYOR

Chief of Party R.L. Schoppe

Surveyed by C.A. Egner and J.M. Snook

Protracted by J.M. Snook

Soundings penciled by J.M. Snook

Soundings in fathoms ~~feet~~

Plane of reference

Subdivision of wire dragged areas by

Inked by

Verified by J.A. McCormick

Instructions dated April 18, 1939

Remarks: Original orders dated Feb. 3, 1938.

DESCRIPTIVE REPORT TO ACCOMPANY SHEET NO. 240139,
ALEUTIAN DEEP LINE, SE UMNAK ID TO S. UNALASKA ID. }
SHIP SURVEYOR, 1939.

DATE OF INSTRUCTIONS.

In accordance with original orders, dated February 3, 1938, and supplemental instructions, dated April 18, 1939, a line was run across the Aleutian Deep Trough, as per loop No. 13 shown on the ozalid print attached to the instructions.

LOCALITY.

The line took off at buoy Sev 2 at Latitude $52^{\circ} 57'$ (+1087 m.) Longitude $168^{\circ} 28'$ (+203 m.), then ran 13.4 miles $125\frac{1}{2}^{\circ}$ true (on sheet 8237); 102.8 miles, on course $152\frac{1}{2}^{\circ}$ true; 34 miles on course $63\frac{1}{2}^{\circ}$ true; 118.2 miles on course $331\frac{1}{2}^{\circ}$ true; 0.4 miles on course $16\frac{1}{2}^{\circ}$ true; then 0.2 mile on course $91\frac{1}{2}^{\circ}$ true, where it was 25 m. from buoy Aiak 2, Latitude $53^{\circ} 15'$ (-275 m.), Longitude $167^{\circ} 32'$ (-80 m.).

GYRO ERROR.

The gyro error used on the line was $+1\frac{1}{2}^{\circ}$. This was the amount determined on the PDR Line westward, and agreed very closely with observations taken up to the time of running the line.

SURVEY METHODS.

After running 13.4 miles from buoy Sev 2 a quart bomb was fired to fix the position, but no returns were obtained. Then about every half hour a cast iron bomb was fired, to position 224. Station Sev 2 seemed to be the only station to come in, with any degree of certainty.

On coming close to shore again, on the tying in end, the first bomb that came through at all, due to delay caused by radio interference, occurred at position 290. From there on, bombs were fired at intervals of 15 to 30 minutes. In order to get any results, it was necessary to fire cast iron bombs and only station Sev 2 came in again with any degree of certainty.

Inasmuch as it was foggy, when the tie-in was made, the soundings on sheet 8136 were watched very closely, and the soundings as obtained were plotted on the proper scale paper and placed on the tracing of 8136. At position 313 and again at 314 the courses were changed, as indicated by the soundings, and buoy Aiak 2 was found 25 meters to starboard at position 315.

When the buoy was brought aboard it was not in working order, a tube having been burned out. That accounted for its failure to respond to the bombs.

LOGS AND REVOLUTION COUNTER.

In starting the line a taffrail log, electric log and revolution counter were used for measuring distance. The only good factor available was that of the revolution counter, which was obtained on several days work on sheet 8237. It showed that at a speed of 96 revolutions, 572 RPM's equalled one nautical mile. The taffrail log was taken out at position 217 for repairs (a universal joint was removed), and soon after a larger divergence between the log and the revolution counter was apparent. The electric log stopped operating at position 231 and wasn't put in working order again before the line terminated.

As a result of the above, the revolution counter alone was used to measure distance, and the taffrail log was merely used to check any large discrepancies. The speed of the ship was 100 RPM's to position 251, and there were about eight minutes of slow speed at the end, the remainder of the time 96 RPM's were used. Consequently 572 was used as the factor in determining distance, although this may have been slightly in error up to position 251 and also at the end. The adjustment of the line practically took care of this error.

ADJUSTMENTS.

The line was plotted by dead reckoning throughout, from position 1 C₂ on sheet 8237 to 6C (201 L, the start of the Aleutian Deep Line), thence to position 315 L. The error of closure at position 315 was 4.5 miles, azimuth 137°. This was adjusted as follows:

Pos. 1C ₂ to 6C (201L)	-0.22 mi.,	azimuth 137°,	for total distance	13.4 mi.
" 201 L to 245 L	---- 1.94 "	" " " "	" "	116.2 "
" 245 L to 260 L	---- 2.52 "	" " " "	" "	150.2 "
" 260 L to 313 L	---- 4.50 "	" " " "	" "	268.4 "
" 313 L to 314 L	---- 4.50 "	" " " "	" "	268.8 "
" 314 L to 315 L	---- 4.50 "	" " " "	" "	269.0 "

No attempt was made to use the R.A.R. control, in adjusting the line, as the results didn't warrant it. At all the positions, where bombs were used (and anything came in at all), the signal from buoy Sev 2 was the only one that could be identified. Any signal from Aiak 2 (or apparently from Aiak 2) would have to be rejected, since the buoy was found to be out of order at the end of the line. The returns from buoys Mid and South (PIONEER buoys) were not definite enough to give them any weight, and any marks on the tape would have to be considered as water noises.

No velocity tests were obtained during the season. The value obtained by the PIONEER (1470 m./sec.), south of the Islands of Four Mountains, during the season, was therefore used in plotting the arcs from buoy Sev 2. These are shown in pencil on the smooth sheet and fail to hit any of the adjusted positions on the dead reckoning line. It was evident at the time that a wave, other than the reflected one, was giving the return, for bombs larger than the normal size for the distance

had to be used to get any response from the buoy. Between positions 290 L and 306 L, 1490 m./sec. fits the adjusted positions fairly closely, while it is a little greater than this value for the positions 201 L to 224 L (which may be due to the revolution counter value at 96 RPM being used while the ship was turning over 100 RPM.). This would seem to indicate a faster sound wave, probably a surface wave, coming in, instead of the reflected wave, due to intervening shoals.

Were any depth soundings made at any time between 201 and 224 fathoms depth?

SHOALS AND SOUNDING INTERVAL.

The sounding interval generally used was one minute up to 1000 fms. and from two to three minutes above that depth. However, between positions 220 and 249 L and 278 to 287 L, the spacing is more irregular, due to the difficulty in getting an echo return. With the exception of between positions 221 and 227, where an actual holiday exists, due to the failure to obtain soundings, the irregularity of the spacing of the soundings is not bad, considering the depths involved. To obtain some many of these soundings it was necessary to fire a 1/2 pt. bomb and measure the echo return on the dial of the fathometer.

No shoals were encountered. The greatest depth on the western line was 3880 fms. at Latitude 51° 51'.0, Longitude 167° 19'.0 and on the eastern line was 3975 fms. at Latitude 52° 04'to 05', Longitude 166° 30'.0.

FATHOMETER CORRECTIONS.

The corrections to the fathometer readings are made the subject of a separate report, but the correction sheet therefrom is included in the front of the sounding volume.

COMPARISON WITH PREVIOUS SURVEYS.

At the beginning of the line the soundings cross those on sheet 8237 and at the end of the line those on sheet 8136. These junctions are in very good agreement.

H-6503 not received from field. 2/21/40.

STATISTICS.

Statute miles of sounding line -----	275.7
Number of soundings -----	742
Number of positions -----	115

Respectfully submitted,

J. M. Smook
J.M. Smook, H. & G. Eng.,
In Charge of Processing Office.

Approved:

E. L. Schoppe
E.L. Schoppe, Chief of Party,
Commanding Str. SURVEYOR.

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. **H6527**

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

Number of positions on sheet	...115..
Number of positions checked0
Number of positions revised0
Number of soundings recorded	...747
Number of soundings revised7
Number of soundings erroneously spaced9
Number of signals erroneously plotted or transferred0

Date: Feb. 21, 1940.

Verification by } J. A. McCormick
Review by

Time: 7 hr.

Time: 4 hr.

HYDROGRAPHIC SURVEY NO 6527

Smooth Sheet --

Boat Sheet 1

Records; Sounding 1 Vols., Wire Drag Vols., Bomb 1 Vols.

Descriptive Report Yes

Title Sheet Yes

List of Signals None

Landmarks for Charts (Form 567) None

Statistics None

Approved by Chief of Party Yes

Recoverable Station Cards (Form 524) None

Special Chart for Lighthouse Service None
(Circular Nov.30, 1933)

Hydrography: Total Days 2 ; Last Date Aug. 28, 1939.

Remarks _____

Remarks.

Decisions

1		U.S.G.B.
2		U.S.G.B.
3		
4	Location of tide staff.	
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
M 234		

GEOGRAPHIC NAMES

Survey No. 6527

Name on Survey	Source											
	A	B	C	D	E	F	G	H	K			
<u>Umnak Island</u>												1
<u>Unalaska Island</u>												2
<u>Aleutian Islands</u>												3
<u>Kuliliak Bay</u>												4
<u>Aleutian Trough</u>												5
												6
												7
												8
												9
												10
												11
												12
												13
												14
												15
												16
												17
												18
												19
												20
												21
												22
												23
												24
												25
												26
												27

Name undetermined if approved
 L. Heck 2/26/40

6527

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES

JAN 22 1940

Acc. No.

DEAD RECKONING ABSTRACT

Sheet No. 240139

ALEUTIAN DEEP LINE

(SE UMNAK I'D to S. UNALASKA I'D)

Str. SURVEYOR

1939


R. L. Schoppe - Chief of Party.

14 Sheets.

6527

R. A. R. AND DEAD RECKONING ABSTRACT

Log No.	FACTOR
A. Taffrail	1.025
B. Electric	1.045
C. Rev. Counter	572/12.17

HYDROGRAPHIC SHEET No. 8227 (in conjunction with 240139)
 U. S. C. AND G. S. SHIP SERVEYOR, R. L. Scheppe COMMANDING. STATION _____
 LOCALITY Aleutian Deep (off Vsevidof Id) DATE Aug. 27, 1939 STATION _____
 distance between fixed positions DAY C STATION _____
 log distance DAY C STATION _____

Pos. No.	TIME h. m. s.	ELAPSED TIME		COURSE		DISTANCE			BOMB		APP'T HORIZ. VELOCITY		WIND		CURRENT		BUOY ANCHOR TO HYDROPHONE					
		m.	s.	True	Var'n	Log Reads	Log Dist.	True Dist.	r	No.	Station	Distance	Assumed	Final	Dir. True	Vel. Approx mi./hr.	Station	Dir.	Vel. knots	Distance	Dir.	
1	8-16-00					A 97.00																
				124	+1/2	B 59.85																
						C 78584																
2	8-30-00	14	00			A 99.5	2.5															
				124	+1/2	B 62.25	2.4															
						C 787210	1370	2.4	2.4													
3	8-45-00	15	00			A 2.1	2.6															
				124	+1/2	B 64.7	2.6															
						C 788772	1502	2.6	5.0													
4	9-00-00	15	00			A 4.7	2.6															
				124	+1/2	B 62.2	2.5															
						C 790210	1498	2.6	7.6													
5	9-15-00	15	00			A 7.3	2.6															
				124	+1/2	B 69.7	2.5															
						C 771694	1484	2.6	10.2													
6	9-33-00	18	00			A 10.4																
				151	+1/2	B 72.8																
						C 793518	1824	3.2	13.4													
						A																
						B																
						C																
						A																
						B																
						C																

Copy of journal

R. A. R. AND DEAD RECKONING ABSTRACT

LOG NO.	FACTOR
A. Affrail	1.025
B. Electric	1.045
C. Rev. Count	572/m.m.

HYDROGRAPHIC SHEET No. 240139 STATION _____
 U. S. C. AND G. S. SHIP SURVEYOR, R. L. Schoppe COMMANDING. (Name of Ship)
 LOCALITY Aleutian Deep (off Ksevidof Id) DATE Aug 27, 1939 STATION _____
 distance between fixed positions
 $r =$ _____ DAY L (Name of Ship)
 log distance _____

Pos. No.	TIME		COURSE			DISTANCE			BOMB		APP'T HORIZ. VELOCITY		WIND		CURRENT		BUOY ANCHOR TO HYDROPHONE					
	h.	m.	True	Var'n	Dist.	Log Reads	Log Dist.	True Dist.	r	No. Station	Distance seconds	Assumed	Final	Dir. True	Vel. degrees mi./hr.	Station	Dir.	Vel. knots	Distance	Dir.		
201.	9	32	00	-	151 + 1/2	A 10.4			Σ													
					152 1/2	B 72.8				1			Same									
202.	9	45	00	12	00	A 12.5	2.1															
					"	B 74.8	2.0															
					"	C 794732	2.12	2.12	2.12													
203	10	00	00	15	00	A 15.0	2.5															
					"	B 77.3	2.5															
					"	C 796220	1490	2.6	4.7	2												
204	10	15	00	15	00	A 17.6	2.6															
					"	B 79.9	2.6															
					"	C 797729	1511	2.6	7.3													
205	10	30	00	15	00	A 20.1	2.5															
					"	B 82.4	2.5															
					"	C 799216	1485	2.6	9.9	3												
206	10	45	00	15	00	A 22.6	2.5															
					"	B 84.9	2.5															
					"	C 800704	1519	2.7	12.6													
207	11	00	00	15	00	A 25.2	2.6															
					"	B 87.4	2.5															
					"	C 802226	1492	2.6	15.2													
208	11	15	00	15	00	A 27.8	2.6															
					"	B 90.0	2.6															
					"	C 803736	1510	2.6	17.9													
209	11	30	00	15	00	A 30.4	2.6															
					"	B 92.5	2.5															
					"	C 805238	1499	2.6	20.5													

Copy - Jones

R. A. R. AND DEAD RECKONING ABSTRACT

Log No.	FACTOR
A	
B	
C = R. C.	572/n ₁ m

HYDROGRAPHIC SHEET No. 240139 STATION _____
 U. S. C. AND G. S. SHIP SURVEYOR, R. L. Schoppe COMMANDING. (Name of Ship)
 LOCALITY Aleutian Deep (S.E. Unnak Id) DATE Aug. 27, 1939 STATION _____
 distance between fixed positions DAY L STATION _____
 log distance (Name of Ship)

Fog No.	TIME		RELASED TIME	COURSE		DISTANCE			BOMB		APPT' HORIZ. VELOCITY		WIND		CURRENT		BOY ANCHOR TO HYDROPHONE								
	h.	m.		Sec.	Mag. Dev.	Var'n	True	Log Reads	Log Dist.	True Dist.	r	No.	Station	Distance	seconds	Assumed	Final	Dlr. True	Vel.	Station	Dlr.	Vel.	Distance	Dlr.	
210.	11-32-00	00	2 00	151	+1/2	152.2	A 30.8	0.4			4														
211.	11-45-00	13 00	"	"	"	"	B 95.0	2.7																	
212.	12-00-00	15 00	"	"	"	"	A 35.5	2.5																	
213.	12-15-00	15 00	"	"	"	"	B 97.6	2.6																	
214.	12-30-00	15 00	"	"	"	"	A 38.1	2.6																	
215.	12-45-15	15 15	"	"	"	"	B 100.1	2.5																	
216.	13-00-00	14 45	"	"	"	"	C 809762	157.5	2.7	28.4															
217.	13-15-00	15 00	"	"	"	"	A 40.5	2.4																	
218.	13-30-00	15 00	"	"	"	"	B 2.6	2.5																	
							C 811228	146.6	2.6	31.0															
							A 42.9	2.4																	
							B 5.2	2.6																	
							C 81278	154.7	2.7	33.7															
							A 45.2	2.3																	
							B 7.7	2.5																	
							C 81428	150.6	2.6	36.3															
							A 47.0	1.8																	
							B 10.2	2.5																	
							C 815783	150.2	2.6	38.9															
							A 49.3	2.3																	
							B 12.7	2.5																	
							C 817287	150.4	2.6	41.5															

* Log taken out for repairs at 13-03 (Removal Universal Joint, possible change factor)

copy ✓ good

R. A. R. AND DEAD RECKONING ABSTRACT

Log No.	FACTOR
A	
B	
C. R. c.	572/m. h.

HYDROGRAPHIC SHEET No. 240139 STATION _____
 U. S. C. AND G. S. SHIP SURVEYOR, R. L. Schoppe COMMANDING. (Name of Ship)
 LOCALITY Alukotian Deep (SE Umak Id) STATION _____
 DATE Aug. 27, 1939 (Name of Ship)
 DAY L STATION _____
 distance between fixed positions
 log distance

Pos. No.	TIME h. m. s.	ELAPSED TIME m. s.	COURSE		DISTANCE			BOMB		APP'T HORZ. VELOCITY		WIND		CURRENT		BUOY ANCHOR TO HYDROPHONE										
			g/c	g/c	Log Reads	Log Dist.	True Dist.	r	No.	Station	Distance	seconds	Assumed	Final	Dlr.	Trus	degrees	mi./hr.	h. m. s.	Station	Dlr.	Vel.	knobs	Distance	Dlr.	
219	13-45-00	15 00	151	1/2	A 51.6	2.3	152	1/2																		
220	14-00-00	15 00	"	"	B 15.2	2.5	1487	2.6																		
221	14-15-00	15 00	"	"	A 56.2	2.4	1493	2.6																		
222	14-30-00	15 00	"	"	B 20.2	2.5	1481	2.6																		
223	14-45-00	15 00	"	"	A 60.3	2.2	1475	2.6																		
224	15-00-00	15 00	"	"	B 27.6	2.4	1555	2.7																		
225	15-15-00	15 00	"	"	A 62.4	2.1	1463	2.6																		
226	15-18-00	3 00	"	"	B 20.2	2.6	1537	2.7																		
227	15-30-00	12 00	151	1/2	A 65.1	0.5	1521	1.1																		

Slow Speed.
" "
Copy - Jeds

R. A. R. AND DEAD RECKONING ABSTRACT

Log No.	FACTOR
A	
B	
C=R.C.	572/1.4

HYDROGRAPHIC SHEET No. 240, 139
 U. S. C. AND G. S. SHIP SURVEYOR, R. L. Schoppa COMMANDING.
 LOCALITY Alutian Deep (SE of Umanak Id) DATE Aug. 27, 1939
 distance between fixed positions
 I = L log distance
 STATION _____ (Name of Ship)
 STATION _____ (Name of Ship)
 STATION _____ (Name of Ship)

Pos. No.	TIME h. m. s.	ELAPSED TIME m. s.	COURSE			DISTANCE			BORES		APP'T HORIZ. VELOCITY		WIND		TIME h. m. s.	CURRENT		BUOY ANCHOR TO HYDROPHONE						
			94% true	34% Dev't	Var'n E/W	True	Log Reads	Log Dist.	True Dist.	r	No.	Station	Distance	seconds		Assumed	Final	Dir. True	Vel. mi./hr.	Station	Dir.	Vel. knots	Distance	Dir.
228	15-35-00	5 00	151	1/2		152	A 66.2 B 37.3	0.3 0.5	0.5	62.1														
229	15-45-00	10 00	"	"	"		A 67.6 B 30.9	1.4 1.6																
230	16-00-00	15 00	"	"	"		C 83.0 A 69.8 B 36.2	0.8 1.2 2.3	1.6	63.7														
231	16-15-00	15 00	"	"	"		C 83.1 A 72.18 B 36.83	1.437 2.4 -	2.5	66.2														
232	16-30-00	15 00	"	"	"		C 83.3 A 74.5 B	1.8 2.3 -	2.7	68.9														
233	16-45-00	15 00	"	"	"		C 83.4 A 76.8 B	1.517 2.3 -	2.7	71.6														
234	17-00-00	15 00	"	"	"		C 83.6 A 79.0 B	1.46 2.2 -	2.6	74.2														
235	17-15-00	15 00	"	"	"		C 83.7 A 81.5 B	1.515 2.5 -	2.7	76.9														
236	17-30-00	15 00	151	1/2		152	C 83.9 A 83.6 B	1.501 2.1 -	2.6	79.5														
237	17-45-00	15 00	151	1/2		152	C 84.0 A 84.0 B	1.484 2.6 -	2.6	82.1														

* Electric log stopped.

Resumed full speed.

Copy ✓

R. A. R. AND DEAD RECKONING ABSTRACT

Log No.	FACTOR
A	
B	
C = R. C.	572/4.44

HYDROGRAPHIC SHEET No. 240,139 STATION _____
 U. S. C. AND G. S. SHIP SURVEYOR, R. L. Scheppe COMMANDING. (Name of Ship)
 LOCALITY Aleutian Deep (SE of Unalakleet) DATE Aug. 27, 1939 STATION _____
 distance between fixed positions DAY _____ L DAY _____ (Name of Ship)
 I = _____ log distance

Pos. No.	TIME h. m. s.	ELAPSED TIME		COURSE		DISTANCE			BORE		APP'T HORIZ. VELOCITY		WIND		CURRENT		BUOY ANCHOR TO HYDROPHONE					
		m.	s.	True	Var'n	Log Reads	Log Dist.	True Dist.	r	No. Station	Distance seconds	Assumed	Final	Dir. True	Vel. degrees mi./hr.	Station	Dir.	Vel. knot	Distance	Dir.		
237	17-45-00	15	00	151	+1 1/2	152 1/2		1538	2.7	84.8												
238	17-50-00	5	00	"	"	"		291	0.5	85.3												
239	18-00-00	10	00	"	"	"		9.6	1.6	86.9												
240	18-15-00	15	00	"	"	"		1530	2.7	89.6												
241	18-30-00	15	00	"	"	"		162.5	2.7	92.3												
242	18-45-00	15	00	"	"	"		1492	2.6	94.9												
243	19-00-00	15	00	"	"	"		1482	2.6	97.5												
244	19-15-00	15	00	151	+1 1/2	152 1/2		1536	2.7	100.2												
245	19-30-00	15	00	62	+1 1/2	63 1/2		1472	2.6	102.8												

Copy - gues

R. A. R. AND DEAD RECKONING ABSTRACT

LOG No.	FACTOR
A	
B	
C = R.C.	572/m.h.

HYDROGRAPHIC SHEET No. 240, 139 STATION _____
 U. S. C. AND G. S. SHIP SURVEYOR, R. L. Seboappe COMMANDING. (Name of Ship)
 LOCALITY Aleutian Deep (SE of Unnak Id) DATE Aug. 27, 1939 STATION _____
 distance between fixed positions
 I = _____ DAY L STATION _____
 log distance (Name of Ship)

Pos. No.	TIME		COURSE		DISTANCE		BOYS		APP'X HORZ. VELOCITY		WIND		CURRENT		BUOY ANCHOR TO HYDROPHONE						
	h.	m.	Mag. Var'n	True	Log Reads	Log Dist.	True Dist.	r	No.	Station	Distance	Assumed	Final	Dir. True	Vel.	Station	Dir.	Vel.	Distance	Dir.	
246	19	45-00	62 1/2	63 1/2	A 104.2	7.4	7														
247	20	00-00	62	63 1/2	A 106.4	2.2															
248	20	15-00	"	"	A 9.8	2.4															
249	20	17-30	"	"	C 85.877	15.27	7.7	110.8													
250	20	30-00	"	"	A 9.2	0.4															
251	20	45-00	"	"	C 85.721	2.4	0.4	111.2													
252	21	00-00	"	"	A 12.6	2.3															
253	21	15-00	"	"	C 85.930	14.58	2.6	115.0													
254	21	30-00	62 1/2	63 1/2	A 15.6	2.4															
					C 86.764	14.64	2.6	117.6													
					A 17.3	2.3															
					C 86.290	14.06	2.5	120.1													
					A 19.4	2.1															
					C 86.360	14.9	2.5	122.6													

Slow speed to obtain sounding
 Resumed full speed.
 Reduced from 100 to 96 revolutions.

Copy v. J. J. J.

R. A. R. AND DEAD RECKONING ABSTRACT

Log No.	FACTOR
A	
B	
C = R. C.	572/m. hr.

HYDROGRAPHIC SHEET No. 240139
 U. S. C. AND G. S. SHIP SURVEYOR, R. L. Schoppe COMMANDING. STATION _____
 LOCALITY Aketian Deep (S.E. Umna k + Unalaska Ids) DATE Aug. 27, 1939 STATION _____
 distance between fixed positions _____ DAY _____ L STATION _____
 r = _____ log distance _____ (Name of Ship)

Pos. No.	TIME		ELAPSED TIME	COURSE			DISTANCE			BOOM		APP'T HORIZ. VELOCITY		WIND		TIME	CURRENT		BUOY ANCHOR TO HYDROPHONE						
	h.	m.		g.	girs	girs	girs	Log Reads	Log Dist.	True Dist.	r	No.	Station	Distance	seconds		Assumed	Final	Dif. True	Vel. mi./hr.	Station	Dir.	Vel. knots	Distance	Dir.
255	21	45	00	15	00	00	62	1/2	63 1/2																
256	22	00	00	15	00	00																			
257	22	15	00	15	00	00																			
258	22	30	00	15	00	00																			
259	22	45	00	15	00	00																			
260	22	55	00	10	00	00	33	1/2	33 1/2																
261	23	00	00	05	00	00																			
262	23	15	00	15	00	00																			
263	23	30	00	15	00	00	33	1/2	33 1/2																

Copy V Jones

R. A. R. AND DEAD RECKONING ABSTRACT

Log No.	FACTOR
A	
B	
C = R. C.	572/4. M.

HYDROGRAPHIC SHEET No. 240139 STATION _____
 U. S. C. AND G. S. SHIP SURVEYOR, R. L. Schoppe COMMANDING. (Name of Ship)
 LOCALITY Aleutian Deep (SE. of Unalakleet Is.) DATE Aug. 27, 28, 1939. STATION _____
 distance between fixed positions DAY L (Name of Ship)
 I = _____ log distance

Pos. No.	TIME		ELAPSED TIME	COURSE		DISTANCE			BOMB		APP'T HORIZ. VELOCITY		WIND		CURRENT		BUOY ANCHOR TO HYDROPHONE									
	h.	m.		Sec.	Mag.	True	Log Reads	Log Dist.	True Dist.	r	No.	Station	Distance	seconds	Assumed	Final	Dir. True	Vel. degrees mi./hr.	Station	Dir.	Vel. knots	Distance	Dir.			
264	23-45	00	15	00	330 + 1/2	A 39.6	2.2																			
						B																				
265	24-00	00	15	00	"	A 41.8	2.2																			
						B																				
266	0-15	00	15	00	"	A 44.2	2.4																			
						B																				
267	0-30	00	15	00	"	A 46.1	1.9																			
						B																				
268	0-45	00	15	00	"	A 47.9	1.8																			
						B																				
269	1-00	00	15	00	"	A 49.9	2.0																			
						B																				
270	1-15	00	15	00	"	A 52.0	2.1																			
						B																				
271	1-30	00	15	00	"	A 54.1	2.1																			
						B																				
272	1-45	00	15	00	330 + 1/2	A 56.2	2.1																			
						B																				

Copy ✓ *[Signature]*

R. A. R. AND DEAD RECKONING ABSTRACT

Loc No.	FACTOR
A	
B	
C = R. C.	572/n. 4.

HYDROGRAPHIC SHEET No. 240 139
 U. S. C. AND G. S. SHIP SURVEYOR, R. L. Scholpe COMMANDING. STATION _____
 LOCALITY Alutian Deep (SE. Umnak-Uhala Isls) DATE Aug. 28, 1939 STATION _____
 distance between fixed positions _____
 r = _____ DAY L STATION _____
 log distance _____ (Name of Ship)

Pos. No.	TIME h. m. s.	ELAPSED TIME h. m. s.	COURSE			DISTANCE			BOMB		APP'T HORIZ. VELOCITY		WIND		TIME h. m. s.	CURRENT		BUOY ANCHOR TO HYDROPHONE								
			SSC	Day	Var'n	True	Log Reads	Log Dist.	True Dist.	r	No.	Station	Distance	seconds		Assumed	Final	Dir.	True	Dir.	Vel.	Distance	Dir.			
273	2-00-00	15 00	94°	04'																						
			330	1 1/2																						
274	2-15-00	15 00	"	"																						
275	30-00	15 00	"	"																						
276	45-00	15 00	"	"																						
277	3-00-00	15 00	"	"																						
278	15-00	15 00	"	"																						
279	30-00	15 00	"	"																						
280	45-00	15 00	"	"																						
281	4-00-00	15 00	330	1 1/2																						

Copy ✓

R. A. R. AND DEAD RECKONING ABSTRACT

Log No.	FACTOR
A	
B	
C = R.C.	572/mph

HYDROGRAPHIC SHEET No. 240, 139 STATION _____
 U. S. C. AND G. S. SHIP SURVEYOR COMMANDING. (Name of Ship)
 LOCALITY Aleutian Deep (S.E. of Unnak-Cha lasta Ids) DATE Aug. 28, 1939 STATION _____
 distance between fixed positions _____ (Name of Ship)
 $r =$ _____ DAY _____ log distance _____ (Name of Ship)

Pos. No.	TIME		ELAPSED TIME	COURSE			DISTANCE		BOMB		APP'T HORIZ. VELOCITY		WIND		CURRENT		BUOY ANCHOR TO HYDROPHONE								
	h.	m.		psc	Dir.	Var'n	True	Log Reads	Log Dist.	True Dist.	r	No.	Station	Distance	Assumed	Final	Dir.	True	Vel.	Station	Dir.	Vel.	Distance	Dir.	
282	4	15-00	15 00	330	1/2	331 1/2	A 76.6	1.8																	
283	30	00	15 00	"	"	"	A 78.5	1.9																	
284	45	00	15 00	"	"	"	A 80.4	1.9																	
285	5-00	00	15 00	"	"	"	A 82.4	2.0																	
286	15	00	15 00	"	"	"	A 84.3	1.9																	
287	30	00	15 00	"	"	"	A 86.2	1.9																	
288	35	00	5 00	"	"	"	A 88.2	1.3																	
289	45	00	10 00	"	"	"	A 90.2	2.0																	
290	6-00	00	15 00	330	1/2	331 1/2	A 91.3	1.3																	

Copy v. 2005

R. A. R. AND DEAD RECKONING ABSTRACT

Log No.	FACTOR
A	
B	
C	R. C. 572/m.s.

HYDROGRAPHIC SHEET No. 240, 139 STATION _____
 U. S. C. AND G. S. SHIP SURVEY, R. L. Scheppe COMMANDING. (Name of Ship)
 LOCALITY Akutian Deep (S. of Unalaska Id.) DATE _____ STATION _____
 distance between fixed positions _____ (Name of Ship)
 r = _____ DAY L STATION _____
 log distance _____ (Name of Ship)

Pos. No.	TIMES		ELAPSED TIME		COURSE			DISTANCE		RANGE		APP'T HORIZ. VELOCITY		WIND		TIME	CURRENT		BUOY ANCHOR TO HYDROPHONE						
	h.	m.	m.	s.	Log	Revs	Log	Dist.	True	Dist.	r	No.	Station	Distance	seconds		Assumed	Final	Dir.	True	Vel.	Station	Dir.	Distance	Dir.
291	6	15	00	15	00	330	1/2	330	2.4	209.2	14														
292	30	00	15	00	"	"	"	2.4	211.6	13															
293	45	00	15	00	"	"	"	2.4	214.0	14															
294	7	00	00	15	00	"	"	2.4	216.3																
295	15	00	15	00	"	"	"	2.4	218.7	15															
296	30	00	15	00	"	"	"	2.4	221.1	16															
297	45	00	15	00	"	"	"	2.4	223.5																
298	8	00	00	15	00	"	"	2.4	225.9	17															
299	15	00	15	00	330	1/2	330	2.4	228.3																

Copy ✓ good

R. A. R. AND DEAD RECKONING ABSTRACT

HYDROGRAPHIC SHEET No. 240, 139 STATION _____
 U. S. C. AND G. S. SHIP SURVEYOR, R. L. Schoppe COMMANDING. (Name of Ship)
 LOCALITY Aleutian Deep (off Cape Arkt, Una la Sta (S)) STATION _____
 DATE _____ (Name of Ship)
 DISTANCE between fixed positions _____ DAY _____
 log distance _____ (Name of Ship)

13.

LOG No.	FACTOR
A	
B	
C	R.C. 572/1000

Pos. No.	TIME		ELAPSED TIME	COURSE		DISTANCE			BOMB		APP'T HORIZ. VELOCITY		WIND		CURRENT		BUOY ANCHOR TO HYDROPHONE		
	h.	m.		Log Reads	Log Dist.	True Dist.	r	No.	Station	Distance	seconds	Assumed	Final	Dir. True	Vel.	Dir.	Vel.	Distance	Dir.
300	8-30-00	15 00	A 9.9 B	2.0		230.7	18												
301	45-00	15 00	A 11.8 B	1.9		233.0													
302	9-00-00	15 00	A 13.8 B	2.0		235.4	19												
303	15-00	15 00	A 15.7 B	1.9		240.1													
304	30-00	15 00	A 17.6 B	1.9		242.5													
305	45-00	15 00	A 19.6 B	2.0		243.0	20												
306	48-00	3 00	A 20.0 B	0.4															
307	10-00-00	12 00	A 21.6 B	1.6															
308	15-00	15 00	A 23.5 B	1.9		247.5													
			C 925.53	1370	2.4	230.7													
			C 926.86	1330	2.3	233.0													
			C 928.23	1270	2.4	235.4													
			C 929.57	1245	2.3	237.7													
			C 930.94	1265	2.4	240.1													
			C 932.29	1350	2.4	242.5													
			C 932.55	265	0.5	243.0													
			C 933.70	1155	2.0	245.0													
			C 935.15	1445	2.5	247.5													

Copy ✓ gals

R. A. R. AND DEAD RECKONING ABSTRACT

LOG NO.	FACTOR
A	
B	
C = R.C.	572/10.24

HYDROGRAPHIC SHEET No. 240, 139 STATION _____
 U. S. C. AND G. S. SHIP SURVEYOR R. L. Schappe COMMANDING. (Name of Ship)
 LOCALITY Alektian Deep (off Cape Aiak, Unalaska Id) DATE Aug. 28, 1939. STATION _____
 r = distance between fixed positions DAY L STATION _____
 log distance

Pos. No.	TIME		ELAPSED TIME	COURSE		DISTANCE			BOMBS		APP'T HORIZ. VELOCITY		WIND		TIME	CURRENT		BUOY ANCHOR TO HYDROPHONE					
	h.	m.		m.	Var'n	True	Log Recds	Log Dist.	True Dist.	r	No.	Station	Distance	Assumed		Final	Dlr. True	Vel.	Station	Dlr.	Vel.	Distance	Dlr.
309	10-18-00	00	3 00	330 + 1/2	33 1/2	A 23.9	0.4		0.5	248.0													
310	22-00	00	4 00	"	"	A 24.4	0.5		0.7	248.7	21												
311	30-00	00	8 00	"	"	A 25.5	1.1		1.4	250.1	22												
312	45-00	00	15 00	320 + 1/2	33 1/2	A 27.4	1.9		2.5	252.6													
313	00-00	15 00	15 00	15 + 1/2	16 1/2	A 29.2	0.8		2.4	255.0													
314	03-00	00	3 00	90 + 1/2	9 1/2	A 29.5	0.3		0.4	255.4													
315	05-30	00	2 30	90 + 1/2	9 1/2	A 29.6	0.1		0.2	255.6													

Slow speed @ 10 57
 Half speed @ 11 02
 19 28.0
 R.C. 90995
 Aiak buoy abeam, 2.5 m to starboard.

Copy - gads

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
 DESCRIPTIVE REPORT
 PHOTOSTAT OF

} No. H 6527
 } No. T

{ 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			
26			
30			
40			
62			
63			
82			
83			
88			
90			

RETURN TO

82	T.F. Reed
----	-----------

✓ JBR

X00
712

TIDE NOTE FOR HYDROGRAPHIC SHEET

January 26, 1940

Division of Hydrography and Topography:

✓ Division of Charts: Attention: Mr. H. R. Edmonston

Plane of reference approved in
1 volumes of sounding records for

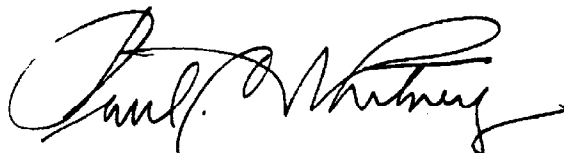
HYDROGRAPHIC SHEET 6527

Locality South of Umnak and Unalaska Islands

Chief of Party: R. L. Schoppe in 1939
Plane of reference is mean lower low water reading
4.8 ft. on tide staff at Kuliliak Bay ✓
6.4 ft. below B. M. 1

Height of mean high water above plane of reference is 5.0 feet

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents.

DIVISION OF CHARTS

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 6527 (1939) FIELD NO. 240,139

Aleutian Islands, Aleutian Trough, South of Unalaska Island
Surveyed in August, 1939, Scale 1:240,000
Instructions dated April 18, 1939 (SURVEYOR)

Soundings:
Type 312 Fathometer

Control:
Precise dead reckoning

Chief of Party - R. L. Schoppe
Surveyed by - C. A. Egner; J. M. Smook
Protracted by - J. M. Smook
Soundings plotted by - J. M. Smook
Verified and inked by - J. A. McCormick
Reviewed by - J. A. McCormick, February 21, 1940
Inspected by - H. R. Edmonston

1. Results of Survey

Two sounding lines were run across the Aleutian Trough in accordance with the plan for systematic development of this feature. The westernmost line may have missed the deepest part of the trough because of an 11-mile gap caused by poor fathometer returns at this point.

2. Condition of Survey

The office verifier has indicated questionable soundings and bomb soundings on the smooth sheet by a small question mark and the word "bomb" respectively. Sounding lines on the present survey cross those of H-4520a (dead reckoning and astronomic fix control) and those of the more rigidly controlled H-6229 (1936-37), H-6377 (1936-38) and H-6503 (1937-39). Crossings with the latter group are fair to good. Possible adjustment is indicated for the crossings with H-4520a but this will be deferred until adjustment of deep sea lines in this general area is undertaken as a whole.


3. Compliance with Instructions for the Project

See par. 1 as regards gap in westerly line.

Examined and approved;


T. B. Reed
Chief, Section of Field Records


K. T. Adams
Chief, Division of Charts


Raymond P. Egner
Chief, Section of Field Work


G. H. Hude
Chief, Division of H. & T.

Applied to Chart 9000 - June 1940 - JTW

Applied to Chart 8802 - June 29, 1940 - JTW

No Correction to Chart 9020 - Jan 8, 1942 - JTW

Applied to Chart 8861 - Feb 1942 - JTW