WIRE DRAG

6941

Additional work 1944

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey WIRE DRAG

Field No. 6941a *Office No.* 6941

LOCALITY

State Alaska

General locality Aleutian Islands

Locality Massacre Bay, Attu Island

194 4

CHIEF OF PARTY

Roland D. Horne, Lieut. Comdr., C&GS

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DATE JAN 20 1945

B-1870-1 (1)

WIRE DRAG 6941 Additional work 1944

Form 537
Ed. Dec. 1930

REG. NO. H6941

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.

Field No. 6941a

REGISTER NO.

State Alaska

General locality Aleutian Islands

Locality Massacre Bay, Attu Island

Scale 1:10,000 Date of survey July 14, 17, 1944

Vessel EXPLORER

Chief of Party Roland D. Horne

Surveyed by George R. Shelton

Protracted by R.D. Goodrich

Soundings penciled by

Soundings in ~~fathoms~~ feet

Plane of reference MLLW

Subdivision of wire dragged areas by R.D. Goodrich

Inked by R.D. Goodrich

Verified by J.A. McCormick

Instructions dated March 25, 1944, 19

Remarks:

U. S. GOVERNMENT PRINTING OFFICE

DESCRIPTIVE REPORT TO ACCOMPANY WIRE DRAG SHEET NO. 6940a

MASSACRE BAY, ATTU ISLAND

SHIP EXPLORER 1944

Instructions:

Project CS-218, dated March 25, 1944 and verbal request from the Captain of the Port, Massacre Bay.

Equipment:

Two regular hydrographic launches from the EXPLORER were used to tow the drag with a motor whaleboat as drag tender. The drag was set out and picked up by the EXPLORER.

The standard wire drag was used. The ground wire was 3/16" stranded galvanized wire equipped with patent fieges. Aluminum toggles were used. The bouys were of the latest design, all steel construction.

The tester was the standard type with regulation markings and a greased iron rod at the bottom to register lift.

Method of Survey:

The drag strips were plotted with dual launch control, each launch plotting independent positions on duplicate boat sheets. The main ship channel was dragged to an effective depth of 39 feet, the small boat channel was dragged to an effective depth of 18½ feet.

A fifteen hundred foot drag was used with four intermediate bouys. The effective length of the tow line was 215 feet, allowing fifteen feet for half the length of the launch, the angles being taken from amidship and the tow line being attached near the stern of the launch.

List of Groundings:

There were no important groundings in this survey.

Records:

All reducers have been entered and checked. The effective depth diagrams have been drawn and checked. All end launch and tender records have been copied into the guide launch record and copy checked.

Tidal Note:

Automatic tide gage on Navy Pier No. 1, Massacre Bay, Attu Island. ✓

Staff reading of 3.9 feet for MLLW was used.

STATISTICS, Wire-drag sheet No. 6941

Date	Letter	Volume	Drag Length	Positions	Miles stat.	Soundings
July 14, 1944	A	1	1500	18	2.3	-----
July 17, 1944	B	1	1500	67	8.5	1
Total				85	10.8	1

Respectfully submitted,

George R. Shelton

George R. Shelton
Lieut. Comdr. C&GS

Approved and forwarded:

Roland D. Horne

Roland D. Horne, Lieut. Comdr., C&GS
Commanding Officer Ship EXPLORER

Form 250
Ed. July, 1928

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

L. O. Colbert, Director.

State: Alaska

OBSERVATIONS
OF
HORIZONTAL ANGLES

LOCALITY

Aleutian Islands

Attu I. - Massacre Bay

~~INSTRUMENT~~

3-point observations at O.DAB.

Computations are attached to Descriptive Report for sheet H-6941

1944

CHIEF OF PARTY

R. D. Horne

1 Vols. Vol. 1

GOVERNMENT PRINTING OFFICE 11—747

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
Form 250

HORIZONTAL

STATION: DAB (Ecc.) STATE:

OBSERVER:

OBJECTS OBSERVED	TIME h. m.	TEL. D OR R	REP'S	ANGLE ° ′
Little		D	0	0 00
\		D	1	185 09
Mass		D	3	195 28
		D	6	30 56
		R	6	359 58
Mass		D	0	0 00
\		D	1	55 26
Dock		D	3	166 19
		R	6	332 37
		R	6	0 00
Dock		D	0	0 00
\		D	1	119 24
		D	3	358 13
Little		D	6	358 25
		R	6	00 01

Do not write in this margin

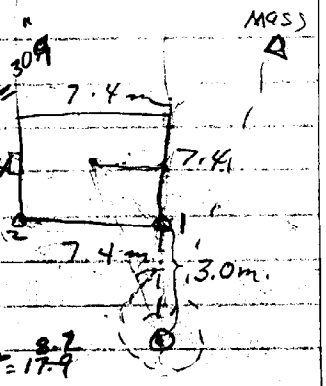
ANGLES

ISLAND OR COUNTY:

DATE:

INSTRUMENT:

A "	B "	MEAN OF VERNIERS	ANGLE MEAN D AND R ° ' "	REMARKS
00	10	05		
30	25	~~27.5~~		
10				
30	30	30.0	185-09-24.2	
45	50	47.5	37.1	
			30.6 +0.7 =	
00	10	05		
30	35			
40				
55	60	57.5	55-26-18.8	
10	20	15.0	17.1	
			~~17.9~~ +0.8 = 17.9	
			18.0	
00	10	05		Mass To No1
15	10			= 330° 32'
~~00~~	~~00~~			D = 3.0 m.
50	60	55	119-24-18.3	262° 30
35	40	37.5	02.9	D = 7.99 m
			10.6 +0.2 = 10.8	
			359-59-59.2	
				60.0
				comp. R.D. 14-
				~~SRS~~



Do not write in this margin

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
Form 250

HORIZONTAL

STATION: STATE:

OBSERVER:

OBJECTS OBSERVED	TIME h. m.	TEL. D OR R	REP'S	ANGLE ° ′	

Do not write in this margin

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
Form 28 B

EXPLORER 1944 - Comp.

GEOGRAPHIC POSITIONS

Accession No. of Computation: _____

Locality Massacre Bay, Attu I. Datum U.S. Navy (Gannet) 1934 - recomputed State Alaska

U. S. GOVERNMENT PRINTING OFFICE 11—10256

STATION	LATITUDE AND LONGITUDE	SECONDS IN METERS	AZIMUTH	BACK AZIMUTH	TO STATION	DISTANCE		
						LOGARITHM (METERS)	METERS	FEET
	° ′ ″		° ′ ″	° ′ ″				
Dab center squ. twr.	52 50 32.59	(847.4) 1007.3						
3 pt. fix	173 12 43.57	(907.5) 815.6						

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
Form 27
Ed. April, 1929

POSITION COMPUTATION, THIRD-ORDER TRIANGULATION

		°	′	″
α	2 Dab (ecc) to 3 Dock	265	01	34
2d ∠	&	+ 246	17	
α	2 to 1	151	14	
Δα				
		180	00	00.0
α′	1 to 2			

		°	′	″
α	3 to 2			
3d ∠	&	−		
α	3 to 1			
Δα				
		180	00	00.0
α′	1 to 3			

First Angle of Triangle

	°	′	″			°	′	″
φ	52	50	37.371	2 Dab (ecc)	λ	173	~~13~~ 12	~~28677~~ 43.767
Δφ		+	00.716		Δλ		−	00.195
φ′	52	50	32.587	1 Dab.	λ′	173	12	28377

	°	′	″			°	′	″
φ				3	λ			
Δφ					Δλ			
φ′				1	λ′			

	Logarithms	Values in seconds
s	0.880 814	1007.3 (847.4)
Cos α	9.942 795	
B	8.509 868.	
h	9.333 477	1st term 0.″216
s²		
Sin² α		
C		
		2d term +
h²		
D		
		3d term +
		−Δφ

½(φ+φ′)	°	′	″ 43.572
	Logarithms	Values in seconds
s	0.880 814	
Sin α	9.687 365	815.6 (307.5)
A′	8.508 791	
Sec φ′	0.219 8956 0440	
Δλ	9.291 8936	0.″195
Sin ½(φ+φ′)		
−Δα		

	Logarithms	Values in seconds
s		
Cos α		
B		
h		1st term ″
s²		
Sin² α		
C		
		2d term +
h²		
D		
		3d term +
		−Δφ

½(φ+φ′)	°	′	″
	Logarithms	Values in seconds
s		
Sin α		
A′		
Sec φ′		″
Δλ		
Sin ½(φ+φ′)		
−Δα		

11—9362 U. S. GOVERNMENT PRINTING OFFICE, 1930

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
Form 27
Ed. April, 1929

POSITION COMPUTATION, THIRD-ORDER TRIANGULATION

		°	′	″
α	2 Mass to 3 Dock	24	05	59.7
2d ∠	&	+ 5	29	51.8
α	2 to 1	29	35	51.5
Δα				35.7
		180	00	00.0
α′	1 Dock(ecc.) to 2 Mass	209	35	15.8
		55	26	18.7

		°	′	″
α	3 Dock to 2 Mass.	204	05	31.9.
3d ∠	&	− 119	03	50.0.
α	3 to 1	85	01	41.9
Δα				7.9
		180	00	00.0
α′	1 Dock(ecc) to 3 Dock.	265	01	34 49.8

First Angle of Triangle

	°	′	″			°	′	″
φ	52	51	20.124	2 Mass.	λ	173	13	28.562
Δφ		−	47.753		Δλ		−	44.795
φ′	51	50	32.371	1 Ecc.	λ′	173	12	43.767

	°	′	″			°	′	″
φ	52	50	32.892	3 Dock.	λ	173	12	53.671
Δφ		−	527 444		Δλ		−	09.904
φ′	51	50	37.378 390	1 Ecc.	λ′	173	12	43.767

	Logarithms	Values in seconds
s	3.229 834	
Cos α	9.939 277	
B	8.509 868	
h	1.678 979	1st term 47.751
s²	6.4597	
Sin²α	9.3873	
C	1.5208	
	7.3708	2d term + 002.
h³		
D		
		3d term +
		−Δφ 47.753

	°	′	″
½(φ+φ′)	52	50	56.2 (450)

	Logarithms	Values in seconds
s	3.229 834	
Sin α	9.693 644	
A′	0.218 956	
Sec φ′	8.508 791	
Δλ	1.651 225	44.795
Sin ½(φ+φ′)	9.901 484	
−Δα	1.552 709	35.7

	Logarithms	Values in seconds
s	2.269 678	
Cos α	8.937 837	
B	8.509 870.	
h	9.817385	1st term 44.4 (527)
s²	4.5393	
Sin²α	9.9967	
C	1.5236.	
	6.0596	2d term +
h³		
D		
		3d term +
		−Δφ

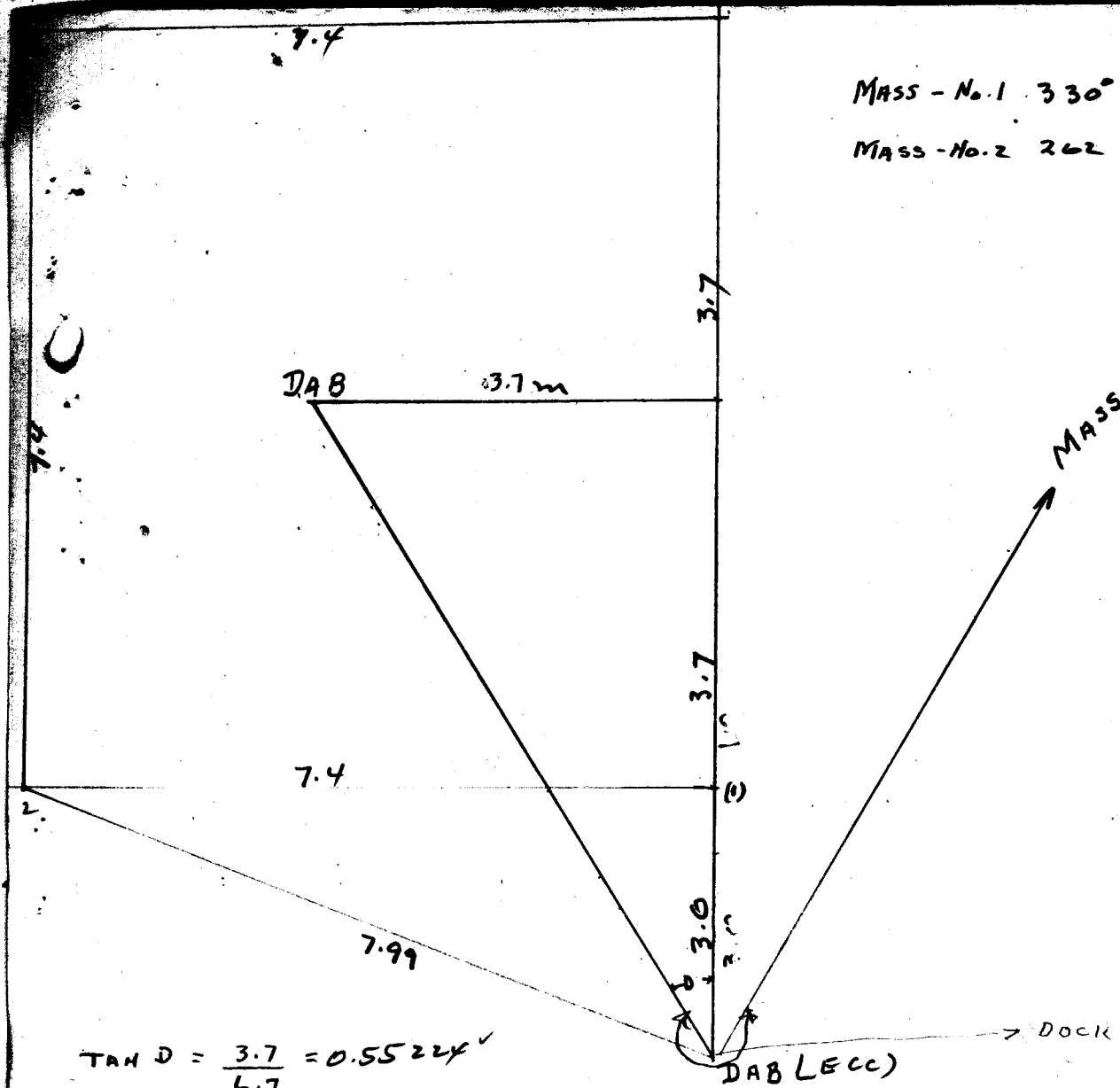
	°	′	″
½(φ+φ′)	52	50	32.5

	Logarithms	Values in seconds
s	2.269 678.	
Sin α	9.998 363	
A′	8.508 791	
Sec φ′	0.218 956	
Δλ	0.995 788	.99035
Sin ½(φ+φ′)	9.901 446	
−Δα	0.897 224	7.89

11—9363 U. S. GOVERNMENT PRINTING OFFICE: 1930

32.371
216
32.587

43,767
− .195
43 572



MASS - No. 1 330° - 32'

MASS - No. 2 262 30

$\tan D = \frac{3.7}{6.7} = 0.5522$ ✓

$D = 28° 54'$ ✓

$DAB - DAB(ECC) = \sqrt{3.7^2 + 6.7^2} = 7.6$ metres ✓

AT DAB(ECC)

MASS TO DAB $330° 32' - 28\ 54 = 301 - 38'$ ✓

MASS - DOCK $55\ 26$ ✓

DOCK - DAB $246 - 12$ ✓

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
Form 25
Ed. Jan., 1929

343
63
400

COMPUTATION OF TRIANGLES

State: _____

11—9121

NO.	STATION	OBSERVED ANGLE	CORR'N	SPHER'L ANGLE	SPHER'L EXCESS	PLANE ANGLE AND DISTANCE	LOGARITHM
	2-3						3.203 956. ✓
	1 Ex	55. 26. 18.✓	✓				0.084 348. ✓
	2 Mano.	5. 29. 51.8. ✓					8.981 394 ✓
	3 Dock.	119. 03. 50.0. ✓					9.941 550 ✓
	1-3						2.269 678 ✓
	1-2						3.229 834 ✓
		180 -00 -00.0					
	2-3						3.70✓ 368.
	1 Ex.	119-24-10.9.					0.059 888.
	2 Dock.	1- 50.36.✓					
	3 Little	58-45-1✓.9.					9.931 938
	1-3						
	1-2						3.694 194
	2-3						3.70✓ 368 ✓
	1 Ex	119- 24- 10.9 ✓					0.059 888. ✓
	2 Dock	58- 45- 12.9 ✓					9.931 938 ✓
	3 Little	1- 50- 36.✓ ✓					8.507 48✓ ✓
	1-3						3.694 194 ✓
	1-2						3.269 695 ✓
		180 -00- 00.0					
	2-3						3.822 024
	1 Ex.	174-50-29.					1.046 177.
	2 Mano.	3. 48-25.✓					8.8✓ 21 41
	3 Little	1-21-05.8.					8.37 26 89
	1-3						3.69 03 42
	1-2						2.240 890

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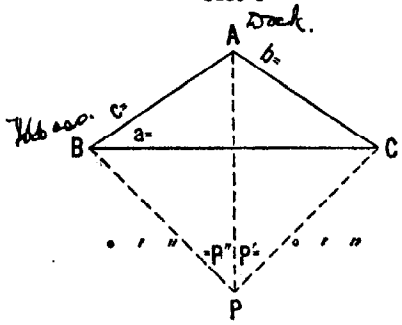
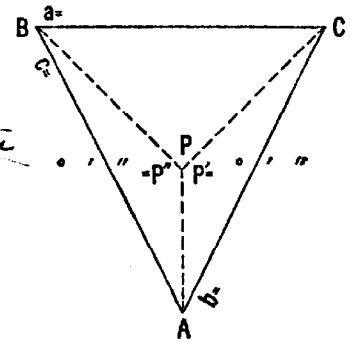
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
Form 655
Ed. Sept., 1929

COMPUTATION OF THREE-POINT PROBLEM

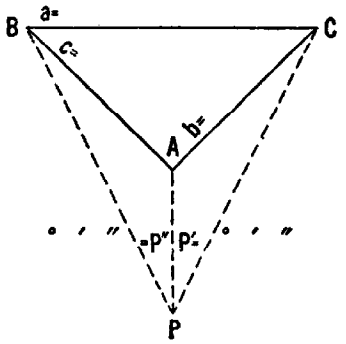
Case 1



Case 2



Case 3



Cases 1 and 2

P′	119 · 24 · 10.9 ✓
P″	55 · 26 · 18.2 ✓
A	177 · 49 · 03.0 ✓
Sum	352 · 39 · 32.1 ✓
½ Sum	176 · 19 · 46.0 ✓

S = 180° − ½ sum = 3 · 40 · 14.0 ✓

Case 3

P′	119 · 24 · 10.9
P″	55 · 26 · 18.2
Sum	
A	

S = ½ (A − sum) =

Log c =	3.203 956 ✓
Log sin P′ =	9.940 112 ✓
Colog b =	6.297 632 ✓
Colog sin P″ =	0.084 328 ✓
Sum = log tan Z =	9.526 028 ✓
Z =	18 · 33 · 35.8 ✓
Z + 45° =	63 · 33 · 35.8 ✓
Log cot (Z + 45°) =	9.696 598 ✓
Log tan S =	8.807 284 ✓
Sum = log tan ϵ =	8.503 802 ✓ (sign +)
ϵ	1° · 49 · 37.8 ✓
S	3 · 40 · 14.0 ✓

(Tan ϵ+)
S + ϵ = angle ABP 5 · 29 · 51.8 ✓
S − ϵ = angle ACP 1 · 50 · 36.2 ✓

(Tan ϵ−)
S − ϵ = angle ABP
S + ϵ = angle ACP

BPA	55 · 26 · 18.2 ✓	APC	119 · 24 · 10.9 ✓	PCB	1 · 21 · 05.8 ✓
ABP	5 · 29 · 51.8 ✓	PCA	1 · 50 · 36.2 ✓	CBP	3 · 48 · 25.2 ✓
PAB	119 · 03 · 50.0 ✓	CAP	58 · 45 · 12.9 ✓	BPC	174 · 50 · 29.1 ✓
	180 · 00 · 00.0		180 · 00 · 00.0		180 · 00 · 00.1 ✓

(For explanation of this form see Special Publication No. 138, pages 191 and 192, or Special Publication No. 145, pages 98–100)

U. S. GOVERNMENT PRINTING OFFICE: 1933
11—9912

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
Form 662
Rev. April, 1931

INVERSE POSITION COMPUTATION

$$s_1 \sin\left(\alpha+\frac{\Delta\alpha}{2}\right)=\frac{\Delta\lambda_1 \cos\phi_m}{A_m}$$

$$s_1 \cos\left(\alpha+\frac{\Delta\alpha}{2}\right)=\frac{-\Delta\phi_1 \cos\frac{\Delta\lambda}{2}}{B_m}$$

$$-\Delta\alpha=\Delta\lambda \sin\phi_m \sec\frac{\Delta\phi}{2}+F(\Delta\lambda)^3$$

in which $\log \Delta\lambda_1=\log(\lambda'-\lambda)-$correction for arc to sin*; $\log \Delta\phi_1=\log(\phi'-\phi)-$correction for arc to sin*; and $\log s=\log s_1+$ correction for arc to sin*.

NAME OF STATION

1. ϕ	52° 48' 06.699"	Little Mesa.	λ	173° 10' 54.603"	
2. ϕ'	52° 51' 20.124"		λ'	173° 13' 28.562"	
$\Delta\phi\ (=\phi'-\phi)$	03' 13.425"		$\Delta\lambda\ (=\lambda'-\lambda)$	2° 33.959'	
$\frac{\Delta\phi}{2}$	01' 36.712"		$\frac{\Delta\lambda}{2}$		
$\phi_m\left(=\phi+\frac{\Delta\phi}{2}\right)$	52° 49' 43.411"				
$\Delta\phi$ (secs.)	193.425"		$\Delta\lambda$ (secs.)	153.959"	

log $\Delta\phi$	2.286 517		**log** $\Delta\lambda$	2.187 405
cor. arc−sin	−		cor. arc−sin	−
log $\Delta\phi_1$	2.286 517		log $\Delta\lambda_1$	2.187 405
log cos $\frac{\Delta\lambda}{2}$			**log cos** ϕ_m	9.8781 180
colog B_m	1.490 179		**colog** A_m	1.491 209
log $\{s_1 \cos\left(\alpha+\frac{\Delta\alpha}{2}\right)\}$	3.776 641	(opposite in sign to $\Delta\phi$)	**log** $\{s_1 \sin\left(\alpha+\frac{\Delta\alpha}{2}\right)\}$	3.449 794
			log $\{s_1 \cos\left(\alpha+\frac{\Delta\alpha}{2}\right)\}$	3.776 641
			log tan $\left(\alpha+\frac{\Delta\alpha}{2}\right)$	9.673 153
log $\Delta\lambda$	2.187 405	3 log $\Delta\lambda$	$\alpha+\frac{\Delta\alpha}{2}$	205° 44' 22.3"
log sin ϕ_m	9.901 367	log F	**log sin** $\left(\alpha+\frac{\Delta\alpha}{2}\right)$	9.707 695
log sec $\frac{\Delta\phi}{2}$		log b	**log cos** $\left(\alpha+\frac{\Delta\alpha}{2}\right)$	9.934 543
log a	9.088 771 n.		**log** s_1	3.842 238
a	−122.68"		cor. arc−sin	+
b			log s	3.847 098
$-\Delta\alpha$ **(secs.)**	+ 122.68"			
$-\frac{\Delta\alpha}{2}$	+ 61.34			
$\alpha+\frac{\Delta\alpha}{2}$	205° 44' 22.3"			
α (1 to 2)	205° 43' 23.6"			
$\Delta\alpha$	02. 02.68			
	180			
α' (2 to 1)	25° 47' 26.3"			

* Use the table on the back of this form for correction of arc to sin.

NOTE.—For log s up to 4.52 and for $\Delta\phi$ or $\Delta\lambda$ (or both) up to 10', omit all terms below the heavy line except those printed (in whole or in part) in heavy type or those underscored, if using logarithms to 6 decimal places. 11—9810

U. S. GOVERNMENT PRINTING OFFICE: 1931

Table of arc-sin corrections for inverse position computations

log s_1	Arc-sin correction in units of seventh decimal of logarithms	log $\Delta\phi$ or log $\Delta\lambda$	log s_1	Arc-sin correction in units of seventh decimal of logarithms	log $\Delta\phi$ or log $\Delta\lambda$	log s_1	Arc-sin correction in units of seventh decimal of logarithms	log $\Delta\phi$ or log $\Delta\lambda$
4. 177	1	2. 686	5. 223	124	3. 732	5. 525	497	4. 034
4. 327	2	2. 836	5. 234	130	3. 743	5. 530	508	4. 039
4. 415	3	2. 924	5. 243	136	3. 752	5. 534	519	4. 043
4. 478	4	2. 987	5. 253	142	3. 762	5. 539	530	4. 048
4. 526	5	3. 035	5. 260	147	3. 769	5. 543	541	4. 052
4. 566	6	3. 075	5. 269	153	3. 778	5. 548	553	4. 057
4. 599	7	3. 108	5. 279	160	3. 788	5. 553	565	4. 062
4. 628	8	3. 137	5. 287	166	3. 796	5. 557	577	4. 066
4. 654	9	3. 163	5. 294	172	3. 803	5. 561	588	4. 070
4. 677	10	3. 186	5. 303	179	3. 812	5. 566	600	4. 075
4. 697	11	3. 206	5. 311	186	3. 820	5. 570	613	4. 079
4. 716	12	3. 225	5. 318	192	3. 827	5. 575	625	4. 084
4. 734	13	3. 243	5. 326	199	3. 835	5. 579	637	4. 088
4. 750	14	3. 259	5. 334	206	3. 843	5. 583	650	4. 092
4. 765	15	3. 274	5. 341	213	3. 850	5. 587	663	4. 096
4. 779	16	3. 288	5. 349	221	3. 858	5. 591	674	4. 100
4. 792	17	3. 301	5. 356	228	3. 865	5. 595	687	4. 104
4. 804	18	3. 313	5. 363	236	3. 872	5. 600	702	4. 109
4. 827	20	3. 336	5. 369	243	3. 878	5. 604	716	4. 113
4. 857	23	3. 366	5. 376	251	3. 885	5. 608	729	4. 117
4. 876	25	3. 385	5. 383	259	3. 892	5. 612	743	4. 121
4. 892	27	3. 401	5. 390	267	3. 899	5. 616	757	4. 125
4. 915	30	3. 424	5. 396	275	3. 905	5. 620	771	4. 129
4. 936	33	3. 445	5. 403	284	3. 912	5. 624	785	4. 133
4. 955	36	3. 464	5. 409	292	3. 918	5. 628	800	4. 137
4. 972	39	3. 481	5. 415	300	3. 924	5. 632	814	4. 141
4. 988	42	3. 497	5. 422	309	3. 931	5. 636	829	4. 145
5. 003	45	3. 512	5. 428	318	3. 937	5. 640	845	4. 149
5. 017	48	3. 526	5. 434	327	3. 943	5. 644	861	4. 153
5. 035	52	3. 544	5. 440	336	3. 949	5. 648	877	4. 157
5. 051	56	3. 560	5. 446	345	3. 955	5. 652	893	4. 161
5. 062	59	3. 571	5. 451	354	3. 960	5. 656	909	4. 165
5. 076	63	3. 585	5. 457	364	3. 966	5. 660	925	4. 169
5. 090	67	3. 599	5. 462	373	3. 971	5. 663	941	4. 172
5. 102	71	3. 611	5. 468	383	3. 977	5. 667	957	4. 176
5. 114	75	3. 623	5. 473	392	3. 982	5. 671	973	4. 180
5. 128	80	3. 637	5. 479	402	3. 988	5. 674	989	4. 183
5. 139	84	3. 648	5. 484	412	3. 993	5. 678	1005	4. 187
5. 151	89	3. 660	5. 489	422	3. 998			
5. 163	94	3. 672	5. 495	433	4. 004			
5. 172	98	3. 681	5. 500	443	4. 009			
5. 183	103	3. 692	5. 505	453	4. 014			
5. 193	108	3. 702	5. 510	464	4. 019			
5. 205	114	3. 714	5. 515	474	4. 024			
5. 214	119	3. 723	5. 520	486	4. 029			

List of Signals

H-6941

Additional Work - 1944

The following signals already are on the smooth sheet:

CAS	MAR	△ TANK
△ FLAG	PON	VEE
△ LITTLE	SON	
△ MASS	WAT	

Signals WAT and BIG are on smooth sheet H-6939. (1943)

New Signals:

△ DOCK	DOCK (USN) Scaife 1943
DAB	Computed 3 point fix 1944. See Report.
DER	H-6940, Vol. 1, page 47.
LEE	H-6940 (1943)

NOTE:

See D.R. H-6940 for correction to be applied to △ DOCK : −30.068" Lat.
−03.380" Long.

List of Signals

H-6941

Additional Work - 1944

The following signals already are on the smooth sheet:

CAS	MAR	△ TANK
△ FLAG	PON	VER
△ LITTLE	SON	
△ MASS	WAT	

Signals WAT and BIG are on smooth sheet H-6939.

New Signals:

△ DOCK	DOCK (USN) Scaife 1943
DAB	Computed 3 point fix 1944. See Report.
DER	H-6940, Vol. 1, page 47.
LEE	H-6940

Massacre Bay Wire Drag

Statistics

H-6941 - Additional Work - 1944

Date	Day	Vol. No.	Drag Length	No. of Positions	Mi. of Drag Strip	Soundings
7/14/44	A	1	1500	18	2.3	
7/17/44	B	1	1500	67	8.5	1
		1		85	10.8	1

Massacre Bay - Attu Island

Tidal Note

Additional Work - 1944 - H-6939, H-6940, & H-6941

Massacre Bay

Standard Automatic Gage on Navy Pier No. 1

Latitude 52° 50!5

Longitude 173 11.7

Staff Reading of MLLW
as fixed by the Washington Office 3.94 feet

H-6941
Additional Work - 1944

Seattle Processing Office Notes

A three point position observed with theodolite gives the following computed position for DAB:

Latitude	52°	50'	32.59
Longitude	173	12	43.57

The object is the center of a square tower. Computations are attached.

The records have been reduced and checked by the Seattle Processing Office and forwarded to Washington for plotting on the original smooth sheet.

Respectfully submitted,

Edgar E. Smith

Edgar E. Smith
Cartographic Engineer

Approved and Forwarded:

F. H. Hardy

F. H. Hardy
Officer in Charge,
Seattle Processing Office.

Surveys Section (Chart Division)

HYDROGRAPHIC SURVEY NO. H6941 Additional Work 1944

Records accompanying survey:

Boat sheets ../..; sounding vols. ./...; wire drag vols. .2...;

bomb vols. .....; graphic recorder rolls .....;

special reports, etc. .....

.....

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

Number of positions on sheet		..85.
Number of positions checked		...7.
Number of positions revised		0
Number of soundings recorded		.....
Number of soundings revised (refers to depth only)		.....
Number of soundings erroneously spaced		.....
Number of signals erroneously plotted or transferred		.....
Topographic details	Time	.....
Junctions	Time	.....
Verification of soundings from graphic record	Time	.....

Verification by J.A. McCormick. Total time 6 hr. Date 4/24/44.

Review by J.A. McCormick Time 2 hr. Date 4/24/44.

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Rev. June 1937

TIDE NOTE FOR HYDROGRAPHIC SHEET

January 23, 1945.

~~Division of Hydrography and Topography.~~

✓ Division of Charts: Attention: H. R. EDMONSTON

Plane of reference approved in
1 volumes of sounding/wire drag records for Additional Work

HYDROGRAPHIC SHEET 6941

Locality Massacre Bay, Attu Island, Aleutian Islands, Alaska.

Chief of Party: R. D. Horne in 1944
Plane of reference is mean lower low water reading
3.9 ft. on tide staff at of June 20, 1944 at Massacre Bay
6.5 ft. below B. M. 1

Height of mean high water above plane of reference is 3.3 feet.

Condition of records satisfactory except as noted below:

H. D. Marmer
Acting Chief, Division of Tides and Currents.

U. S. GOVERNMENT PRINTING OFFICE 154827

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY REGISTRY NO. 6941 W.D. Add'l Work

Aleutian Islands; Attu Island; Massacre Bay
Surveyed in July, 1944, Scale 1:20,000
Project CS 218

Wire Drag Dual Control

Chief of Party - R. D. Horne
Surveyed by - G. R. Shelton
Protracted by - R. D. Goodrich
Inked by - R. D. Goodrich
Verified and reviewed by - J. A. McCormick
Inspected by - H. W. Murray, April 24, 1944.

The 1944 additional drag work in Massacre Bay satisfactorily supplements the original work of 1943. Made at the request of the Captain of the Port, the work was well done despite the difficulties of maneuvering between navigational buoys and shoals. There were no important groundings nor were there any conflicts between effective depths and the hydrography of H-6940 (1943) and Chart 9128 (Print of Jan. 16, 1945)

Examined and Approved:

Charles Price
Chart Division

F. S. Borden
Chief, Chart Division

Earl O. Heaton
Chief, Section of Hydrography

G. R. Putnam
Chief, Division of Coastal Surveys

NAUTICAL CHARTS BRANCH

SURVEY NO. H 6941 Add'l. Work 1944

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
6-21-45	9198	J. M. A.	~~Before~~ After Verification and Review No correction
June '45	8865	J. M. A.	Before After Verification and Review " "
July 2, '45	910 V	J. M. A.	Before After Verification and Review " "
Sept. 10, 1945	9128	J. W. Walbey	" " "
11-4-92	V-A23	Ed Mats	~~Before~~ After Verification and Review New Chart
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

6941 WIRE DRAG SURVEY.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Wire Drag

Field No. ..... *Office No.* H-6941

LOCALITY

State ~~Alaska~~

General locality Aleutian Islands

Locality Attu Island

Massacre Bay

1943

CHIEF OF PARTY

G. C. Mattison

EXPLORER

LIBRARY & ARCHIVES

DATE

8-1870-1 (1)

6941 WIRE DRAG SURVEY.

Form 537
Ed. Dec. 1930

REG. NO.

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.

Field No. .....

REGISTER NO. H-6941

State ..... Alaska

General locality ..... Aleutian Islands - Attu Island

Locality ..... Massacre Bay

Scale 1:20,000 Date of survey Aug. - Oct., 1943

Vessel ..... EXPLORER

Chief of Party ..... C. C. Mattison

Surveyed by ..... S. B. Grenell

Protracted by ..... W. M. Martin

Soundings penciled by ..... W. M. Martin

Soundings in ~~fathoms~~ feet ..... Feet

Plane of reference ..... MLLW

Subdivision of wire dragged areas by ..... W. M. Martin

Inked by .....

Verified by .....

Instructions dated Oral instructions by Liaison Officer, 19Adak

Remarks: ..... Smooth Plotting and Smooth Sheet by the Seattle Processing Office.

U. S. GOVERNMENT PRINTING OFFICE

H-6941 - Wire Drag

Aleutian Islands - Attu Island

Massacre Bay

by the EXPLORER

G. C. Mattison, Comdg.

August, 1943

Scale 1:20,000

Methods -

Using 1800 to 2400 foot wire drag in 300 and 400 foot sections, towline 100 and 200 feet long. Each end of drag separately located by sextant fixes. ✓

Datum-

U. S. Navy astronomical datum as determined in 1934 in Chichagof Harbor. ✓

Control -

Based on 1943 triangulation by the HYDROGRAPHER; signals expanded therefrom by sextant cuts. Cuts in Vol. 17 of H-6940. See reports for H-6939 and H-6940 where full explanations of control are given. The hydrographic cuts were not replotted on H-6941, but were transferred from H-6939 (1:20,000) or scaled and replotted from H-6940 (1:10,000). ✓

Records -

The end launch record and the tender record have been copied into the guide launch book. ✓

Split -

There is a small split at Latitude 52° 47'2 Longitude 173° 18'9, between the end of one strip and the start of another strip. The boat sheet does not show this split. The field party drew a reverse curve from the ✓

plotted buoy to the guide launch position 1B at the start of B day. This is probably allowable. While the end launch position was not given at that time, the field party did know the position of the plotted buoy and could tell whether the drag was against it. At Pos. 38A day the field party drew the ending bight to Pos. 1A by mistake. These two items covered on the boat sheet the area shown as a split on the smooth sheet.

Statistics -

Statute Miles Drag Strip	15.4
Number of Positions	144
Area dragged - Sq. Stat. Miles	5.2

This report was prepared by the Seattle Processing Office.

Edgar E. Smith
Assoc. Cart. Engineer

Approved and Forwarded:

F. H. Hardy
Officer in Charge

Tidal Note

H-6941 - Wire Drag

Aleutian Islands - Attu Island

Massacre Bay

Surveyed by the EXPLORER

G. C. Mattison, Comdg.

1943

Massacre Bay

Portable Automatic Gage

Latitude	52° 50'.45
Longitude	173 11.65
Staff Reading of MLLW	3.7 feet

GEOGRAPHIC NAMES

Survey No. H6941

Name on Survey	A On Chart No.	B On previous survey No.	C On U. S. quadrangle Maps	D From local information	E On local Maps	F P. O. Guide or Map	G Rand McNally Atlas	H U. S. Light List	K	
Aleutian Islands										1
Attu Island			(U.S.G.B)							2
Massacre Bay			(525730E)							3
										4
										5
										6
										7
										8
				Names underlined in red approved by L. Heck on 9/18/44						9
										10
										11
										12
										13
										14
										15
										16
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										23
										24
										25
										26
										27

M 234

Surveys Section (Chart Division)

HYDROGRAPHIC SURVEY NO. H6941

Records accompanying survey:

Boat sheets ....; sounding vols. ....; wire drag vols. ....;

bomb vols. .....; graphic recorder rolls .....;

special reports, etc. .....

.....

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

Number of positions on sheet		.144.
Number of positions checked		...7.
Number of positions revised		...0.
Number of soundings recorded		.....
Number of soundings revised (refers to depth only)		.....
Number of soundings erroneously spaced		.....
Number of signals erroneously plotted or transferred		.....
Topographic details	Time	.....
Junctions	Time	.....
Verification of soundings from graphic record	Time	.....

Verification by..J.A.McCormick..Total time .5 hrs. Date 9/8/44..

Review by .....J.A.McCormick..... Time 2 hrs. Date 9/8/44..

FORM M-238

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY / DESCRIPTIVE REPORT / PHOTOSTAT OF } No. H H6941 / 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	

Park

R.a.c.
7/12

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Rev. June 1937

TIDE NOTE FOR HYDROGRAPHIC SHEET

June 21, 1944

~~Division of Hydrography and Topography:~~

Division of Charts: Attention: H. R. EDMONSTON

Plane of reference approved in wire drag
3 volumes of sounding records for

HYDROGRAPHIC SHEET 6941

Locality Aleutian Islands, Attu Island, Massacre Bay, Alaska

Chief of Party: G. C. Mattison in 1943
Plane of reference is mean lower low water
3.7 ft. on tide staff at Massacre Bay
6.5 ft. below B. M. 1

Height of mean high water above plane of reference is 3.3 ft.

Condition of records satisfactory except as noted below:

E K Green

Chief, Division of Tides and Currents.

U. S. GOVERNMENT PRINTING OFFICE 154327

DIVISION OF CHARTS

REVIEW SECTION -- SURVEYS BRANCH

REVIEW OF HYDROGRAPHIC SURVEY REGISTRY NO. 6941 W.D.

Aleutian Islands; Attu Island; Massacre Bay
Surveyed in August-October 1943, Scale 1:20,000
Project CS 218

Wire Drag Dual Control

Chief of Party - G. C. Mattison
Surveyed by - S. B. Grenell
Protracted by - W. M. Martin
Subdivision of dragged areas by - W. M. Martin
Inked by - W. M. Martin
Verified and reviewed by - J. A. McCormick
Inspected by - H. R. Edmonston, September 8, 1944

Made under instructions from the Survey's Liaison Officer at Adak, the survey apparently was intended to cover only principal approaches to Massacre Bay. Inspection of hydrographic surveys H-6939 and H-6940 of 1943 shows that effective depths of 40 or more feet probably could have been used in the 28 and 29 foot strips on the south. The three shoal soundings obtained at the inshore ends of these two strips are in accord with the hydrography. Limits of the dragged areas have been added to chart 9128 (print of Jan. 22, 1944) from the EXPLORER's advance blueprints. The chart should be revised to agree with the reviewed survey. Buoys in the area have been shifted around to better mark the dragged strips.

Examined and approved:

Robert W. Knox
Chief, Surveys Branch

L. B. Borden
Chief, Division of Charts

Earl O. Herston
Chief, Section of Hydrography

G. Rude
Chief, Division of Coastal Surveys

NAUTICAL CHARTS BRANCH

SURVEY NO. H 6941 See also back cover

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
June 1945	8865	J. M. a.	~~Before~~ After Verification and Review
9/10/45	9128	JTW	~~Before~~ After Verification and Review Green plate corrected
11-4-92	16423	EL Mat	~~Before~~ After Verification and Review New Chart
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

Partially applied to Cht 9128 before Ver. & Rec. Aug. 10 1944 H.H.D.