7138

Diag'd. on diag. ch. No. 9198-1

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. EX-1146 *Office No.* H-7138

LOCALITY

State Alaska

General locality Agattu Island

Locality Otkriti Bay

194 6

CHIEF OF PARTY

F.L. Gallen

LIBRARY & ARCHIVES

DATE AUG 8 9 1947

B-1870-1 (1)

7138

Form 537
Ed. Dec. 1930

REG. NO. H7138

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. EX 1146

REGISTER NO. H-7138

State Alaska ✓

General locality Agattu Island ✓

Locality Otkriti Bay ✓

Scale 1:10,000 ✓ Date of survey 14 May to 17 Sept. 1946 ✓

Vessel EXPLORER

Chief of Party F. L. Gallen ✓

Surveyed by J.C.Partington, A.L. Wardwell, P. Taylor ✓

Protracted by C. E. Petersen

Soundings penciled by C. E. Petersen

Soundings in fathoms ~~feet~~ by Graphic Recorder ✓

Plane of reference MLLW ✓

Subdivision of wire dragged areas by

Inked by C P Reed

Verified by C P Reed

Instructions dated CS-218 of 21 March 1946 and Supp. Instructions of 16 March 1946 by Liaison Officer

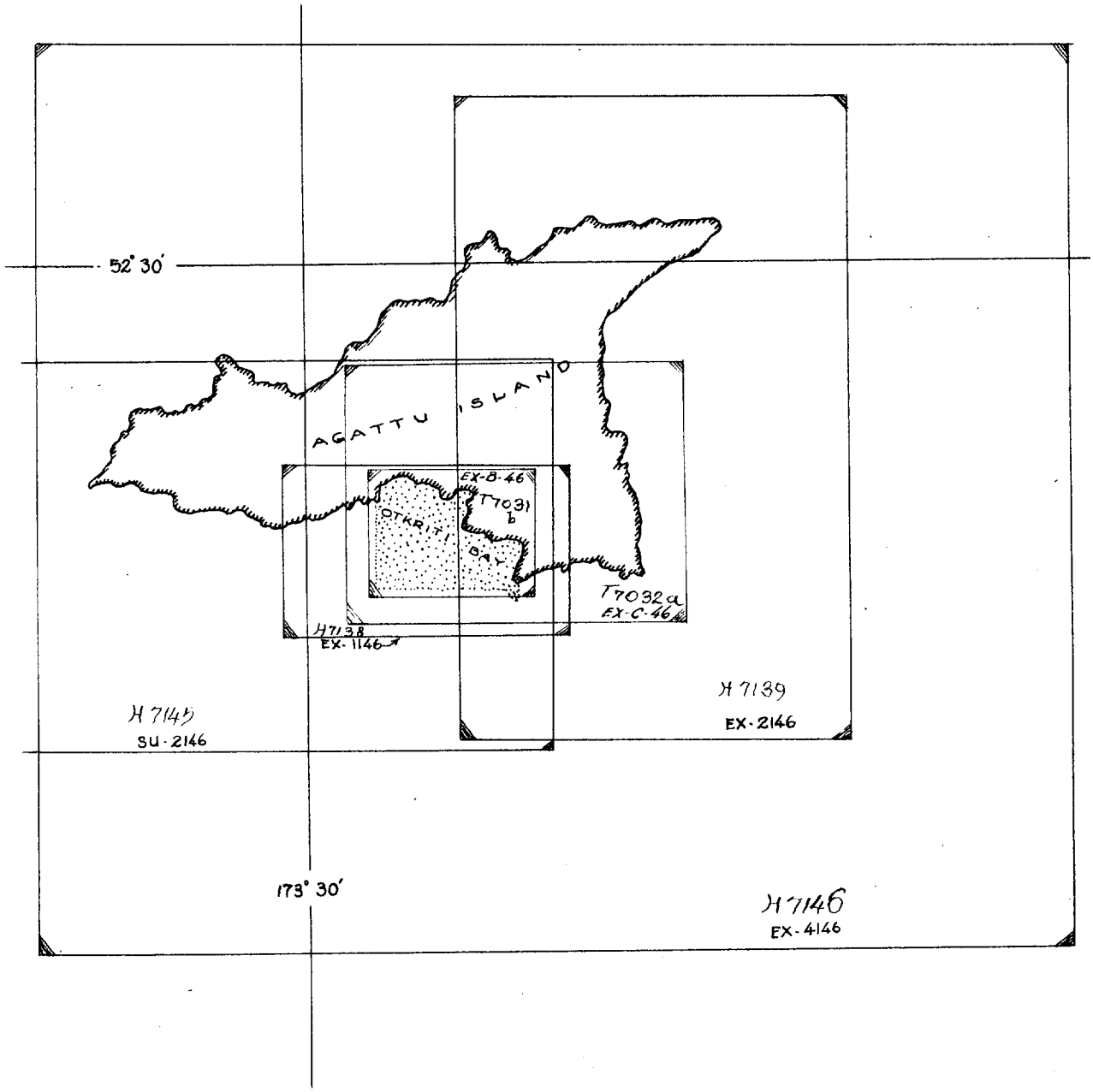
Remarks: Smooth Sheet and Plotting by Seattle Processing Office

Time used for operation of tide gages, execution of hydrography and for reduction of soundings was 165 W. Meridian.

U. S. GOVERNMENT PRINTING OFFICE

INDEX SHEET

To accompany Descriptive
Report for Hydrographic Survey
Field No. EX-1146



DESCRIPTIVE REPORT

TO ACCOMPANY HYDROGRAPHIC SURVEY H - 7138

Field No. EX-1146

SCALE 1:10,000

OTKRITI BAY AND KARAB COVE, AGATTU ISLAND

ALASKA

1946

USC&GSS EXPLORER F. L. GALLEN, COMMANDING

SURVEYED BY:

J. C. PARTINGTON, A. L. WARDWELL, P. TAYLOR

A. PROJECT:

INSTRUCTIONS, Project CS-218; Project 32 - TRIANGULATION AND HYDROGRAPHY, Agattu Island, 16 March 1946, from the USC&GS Officer, 17th Naval District; INSTRUCTIONS (Tentative), 21 March 1946, from the USC&GS Officer, 17th Naval District.

B. SURVEY LIMITS AND DATES:

Locality: Alaska, Agattu Island, Otkriti Bay. This survey includes area of Otkriti Bay, with that of Karab Cove, extending southward to about Latitude 52°22.0' N.

Junctures were made with contemporary surveys as follows and as indicated on Index Sheet submitted with this report: to the southeast, with Field No. EX-2146, scale 1:20,000; to the west, with SU-2146, scale 1:20,000; and to the south, with EX-4146, scale 1:40,000.

H 7139 (1946)

H 7145 (1946)

H 7146 (1946)

Hydrography was executed during various periods from 14 May to 17 September, 1946, while conditions were favorable for launch hydrography.

C. VESSEL AND EQUIPMENT:

Hydrography was accomplished with EXPLORER's Launches No. 1 and No. 2, equipped with 808 Fathometers No. 50 and No. 51, respectively. All soundings were read and recorded on the fathoms scale of these instruments, except while drift sounding to examine critical shoals, as noted in the sounding volumes. Additional bottom characteristics were obtained by Ship PATTON.

D. TIDE STATIONS:

The portable automatic tide gage installed at Otkriti Bay was used for tide reducers from 14 May to 24 May. Thereafter reducers were obtained from the standard tide gage at Massacre Bay, Attu Island.

E. SMOOTH SHEET:

To be accomplished by Processing Office.

F. CONTROL STATIONS:

Hydrography was executed from control established by a random traverse on topographic planetable field sheet EX-B-46. T-7031 & also T-7033 & SU-A-46 Signals were later connected with local triangulation, F. L. Gallen, 1946.

G. SHORELINE AND TOPOGRAPHY:

No shoreline or topographic detail was available at the time of hydrography. Occasional off-lying rocks were located during

see Review Pt.

hydrography and a small section of shoreline sketched in. Field inspection of air photographs flown 8 and 10 May, 1946, by NAF, Attu, was accomplished during August by Ship PATTON.

H. SOUNDINGS:

All soundings were read and recorded on the fathoms scale of the 808 Fathometers, except when handlead soundings were employed to obtain critical least depths or bottom characteristics.

I. CONTROL OF HYDROGRAPHY:

Three-point sextant fixes were used to control all hydrography except where it was necessary to reference inshore ends of sounding lines by bearing and estimated distance from signals.

J. ADEQUACY OF SURVEY:

This survey is considered complete and adequate for charting. Junctions with adjoining surveys are satisfactory, the depth curves making good junctures.

K. CROSSLINES:

Amount of crosslines run, exclusive of development work, was about ten percent. Crossing discrepancies were negligible.

L, M. COMPARISON WITH FORMER SURVEYS AND CHART:

No previous survey exists. Chart 9198, print date 2 February, 1945, indicates the presence of a reported reef and a submerged rock offshore in the area of this survey. It is recommended that the wording "reef" be expunged and that the submerged rock symbol be retained with the notation "breaks", since this danger consists of a

Latest chart shows 3/4 fm & note "breaks". This is adequate. I.M.Z.

limited two-fathom area (least depth 0² fms.) over which heavy seas break consistently.

N. DANGERS AND SHOALS:

The danger referred to in the preceding paragraph is located at Lat. 52° 22.69' N., Long. 173° 35.57' E., where a least depth that reduced to 4 (Four) (Reduces to 0² fms.) ~~five~~ feet was obtained after drift sounding in the two-fathom area in this vicinity for about twenty minutes, investigating all shoal indications recorded on the fathometer with the handlead (see sounding record for "b" day, 26 August, Launch No. 1 - Positions 76 to 79).

Respectfully submitted,

J. C. Partington
Lieut. Comdr., USC&GS

A. L. Wardwell
Lieut., USC&GS

P. Taylor
Lieut., USC&GS

Approved and forwarded:

F. L. Gallen
Lieut. Comdr., USC&GS

USED: 14 May through 13 June, Sheet 1146.

VELOCITY CORRECTIONS

16 MAY 1946

SHIP

808 820 fms/sec.

Fms.			Fms.
0.0	to	4.8	0.0
5.0	to	8.8	-0.1
9.0	to	12.4	-0.2
12.6	to	16.0	-0.3
16.2	to	20.0	-0.4
20.2	to	23.4	-0.5
23.6	to	27.4	-0.6
27.6	to	31.0	-0.7
31.2	to	35.0	-0.8
35.2	to	43.0	-1.0
43.2	to	51.0	-1.2
51.2	to	58.4	-1.4
58.4	to	66.2	-1.6
66.4	to	74.4	-1.8
74.6	to	82.2	-2.0
82.4	to	90.0	-2.2
90.2	to	98.0	-2.4
98.2	to	104.5	-2.6
105.0	to	124.0	-3.0
124.5	to	144.0	-3.5
144.5	to	163.5	-4.0
164.0	to	183.5	-4.5
184.0	to	200.0	-5.0

LAUNCH

808 820 fms/sec.

Fms.			Fms.
0.0	to	2.2	0.0
2.3	to	6.5	-0.1
6.6	to	10.3	-0.2
10.4	to	14.4	-0.3
14.6	to	18.4	-0.4
18.6	to	22.2	-0.5
22.6	to	26.0	-0.6
26.2	to	29.8	-0.7
30.0	to	33.4	-0.8
33.6	to	41.4	-1.0
41.6	to	49.0	-1.20
49.2	to	57.0	-1.4
57.2	to	64.8	-1.6
65.0	to	72.6	-1.8
72.8	to	80.4	-2.0
80.6	to	88.4	-2.2
88.6	to	96.4	-2.4
96.6	to	103.0	-2.6
103.5	to	122.5	-3.0
123.0	to	142.5	-3.5
143.0	to	162.0	-4.0

Used: 26 Aug through 17 Sept.

VELOCITY CORRECTIONS

15 AUGUST 1946

SHIP

808 Fms	820 fms/sec. Corr. Fms
0 - 5.5	0.0
5.6 - 13.4	-0.1
13.5 - 19.5	-0.2
19.6 - 24.7	-0.3
24.8 - 30.2	-0.4
30.3 - 31.0	-0.5
31.5 - 39.5	-0.6
40.0 - 48.5	-0.8
49.0 - 57.0	-1.0
57.5 - 65.0	-1.2
65.5 - 73.0	-1.4
73.5 - 81.0	-1.6
81.5 - 88.5	-1.8
89.0 - 96.0	-2.0
96.5 - 100	-2.2
101 - 119	-2.5
120 - 139	-3.0
140 - 158	-3.5
159 - 178	-4.0

LAUNCH

808 Fms.	820 fms/sec. Corr. Fms
0 - 4.0	0.0
4.1 - 12.9	-0.1
13.0 - 18.0	-0.2
18.1 - 24.2	-0.3
24.3 - 28.7	-0.4
28.8 - 31.0	-0.5
31.5 - 38.0	-0.6
38.5 - 47.0	-0.8
47.5 - 55.5	-1.0
56.0 - 63.5	-1.2
64.0 - 71.5	-1.4
72.0 - 79.5	-1.6
80.0 - 87.0	-1.8
87.5 - 94.5	-2.0
95.0 - 100.5	-2.2
101 - 117	-2.5
118 - 137	-3.0
138 - 156	-3.5
157 - 176	-4.0

H-7138

(EX 1146)

Otkriti Bay - Agattu Island - Near Is.

Seattle Processing Office Notes

Topo. Compilation completed in Wash. Office. Shoreline & offshore detail applied to smooth sheet. IMZ

The Smooth Sheet projection is hand made on Whatman Paper. All signals are from 1946 triangulation, or from topographic sheet T-7031b or T-7033a of the same year. There is no reliable source for shoreline and none will be available until the compilation is made from the inspected air photographs. In parts of the sheet the field party sketched the limiting shore ledges and these have been transferred in pencil from the boat sheet. All rocks appearing on the boat sheet without other means for locating them have similarly been transferred.

Kelp- This sheet is remarkable in this area for the general absence of kelp. There is very little kelp shown on the boat sheet and it is scarcely mentioned in the records.

Dangers- Note the ridge extending more than ~~two~~ one mile SW off the south entrance point of Karab Cove. Also note the following:

3.7	fms. at Lat.	52°	22.90	Long. 173°	35.90
0.7	"	52	22.70	173	35.60
2.7	"	52	22.62	173	35.40
6.9	"	52	22.53	173	35.~~18~~.18
2.5	~~1.9~~ "	52	23.43	173	36.~~1~~39

The fathograms show very jagged bottom.

Crossings- Good.

Respectfully submitted,

Edgar L. Smith
Cartographic Engineer
Seattle Processing Office

TIDAL NOTE

Soundings on Hydrographic Survey H - 7138, Field No. EX-1146, were reduced from tide data from portable automatic tide gage No. H-161, located at Otkriti Bay, Agattu Island, during the period from 14 to 24 May, 1946. Hourly heights for reduction of soundings were scaled from the marigrams. Plane of reference of M.L.L.W. is 4.1 feet on the tide staff, reference Director's letter of 28 June, 1946, ref. 36-tmo.

Soundings on this survey for the period of 13 June to 17 September, 1946, were reduced from tide data from standard gage No. H-401 located at Massacre Bay, Attu Island. Hourly heights for the reduction of soundings were scaled from the marigrams of the gage. Plane of reference of M.L.L.W. is 3.4 feet on the tide staff, computed from levels run to the 1946 location of this staff (which differs from the 1945 location, although the staff elevations are the same). Elevations of tidal bench marks used in leveling were as derived from descriptions furnished by the Washington Office: TIDAL BENCH MARKS, Massacre Bay, Attu Island, dated 9 May, 1946, ref. fvm.

Time meridian used for operation of tide gages was that of 165° West.

STATISTICS FOR HYDROGRAPHIC SURVEY H - 7138

FIELD NO. EX - 1146 USC&GSS EXPLORER

Survey Unit	Vol.	Day Letter	Date, 1946	Number Positions	Stat. Miles Sndg. Lines	Area: Square Stat. Miles
Lch.#2	1	a	14 May	172	26.8	
Lch.#2	1	b	15 May	159	31.0	
Lch.#2	2	c	21 May	69	12.2	
Lch.#2	2	d	22 May	171	26.7	
Lch.#2	2 & 3	e	23 May	187	30.2	
Lch.#2	3	f	24 May	177	35.9	
				935	162.8	
Lch.#1	4	a	13 June	124	28.1	
Lch.#1	4	b	26 Aug.	118	14.5	
Lch.#1	4 & 5	c	27 Aug.	128	19.6	
Lch.#1	5	d	17 Sept.	23	2.8	
				393	65.0	
PATTON	5	A	28 Aug.	10	----	
T O T A L S :				1338	227.8	8.4

H-7138

EX 1146

Geographic Names on Sheet

Attu Island

Otkriti Bay

Karab Cove

RHC

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

Division of Hydrography and Topography September 23, 1947

Division of Charts: H. W. MURRAY

Plane of reference approved in 6
volumes of sounding records for H. S. 7138

HYDROGRAPHIC SHEET

Locality - Otkriti Bay, Agattu Island, Aleutian Islands, Alaska

Chief of Party: F. L. Gallen and K. G. Crosby in 1947
Plane of reference is mean lower low water, reading
4.1 ft. on tide staff at Otkriti Bay
5.5 ft. below B. M. 1 (1946)
3.5 ft. on tide staff at Massacre Bay
6.6 ft. below B. M. 1 (1943)

Height of mean high water above plane of reference is 3.4 feet.

Condition of records satisfactory except as noted below:

E.C. McKay
Section
Chief, Division of Tides and Currents.

U. S. GOVERNMENT PRINTING OFFICE 154327

GEOGRAPHIC NAMES

Survey No.

H7138

Name on Survey

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:	
Alaska			(for title)							1
Aleutian Islands			"	"						2
Agattu Island									USGB	3
Otkriti Bay		(location of one tide staff)							"	4
Karab Cove									"	5
Pacific Ocean										6
				Names underlined in red are approved. 3/10/48 L.Heck						7
										8
										9
Massacre Bay		(location of one tide staff)								10
										11
										12
										13
										14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

M 234

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H7138

Records accompanying survey:

Boat sheets 1; sounding vols. 6; wire drag vols. 0;

bomb vols. 0; graphic recorder rolls 10;

special reports, etc. .....

.....

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

Number of positions on sheet		1338
Number of positions checked		26
Number of positions revised		7
Number of soundings revised (refers to depth only)		51
Number of soundings erroneously spaced		48
Number of signals erroneously plotted or transferred		0
Topographic details	Time	6 hr.
Junctions	Time	2 hr
Verification of soundings from graphic record	Time	5 hr.

Verification by C.P. Reed ..... Total time 155 hr. Date 8 Dec. 1947

Reviewed by I. M. Zaskind ..... Time 24 hr. Date 19 Feb. 1948.

M-2232-1

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY REGISTRY NO. H-7138

FIELD NO. EX-1146

Alaska, Agattu Island, Otkriti Bay
Surveyed in May to September, 1946 Scale 1:10,000
Project No. CS-218

Soundings:

808A Fathometer

Control:

Three-point fixes on shore signals

Chief of Party - F. L. Gallen
Surveyed by - J. C. Partington, A. L. Wardwell and P. Taylor
Protracted by - C. E. Peterson
Soundings plotted by - C. E. Peterson
Verified and inked by - C. P. Reed
Reviewed by - I. M. Zeskind, February 19, 1948
Inspected by - H. W. Murray

1. Shoreline and Signals

The topographic signals originate with graphic control sheets T-7031b and T-7033a of 1946.

The shoreline and off-lying topographic details are from airphoto compilations superimposed on the above graphic control sheets in 1947.

Additional rocks have been plotted on the smooth sheet by transfer from the boat sheet or from fixes recorded in the sounding records of the present survey.

2. Sounding Line Crossings

Depths at crossings are in adequate agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves are adequately delineated except inshore where foul areas prevented detailed development.

Bottom irregularities exist close inshore with occassional lumpiness offshore. A prominent shoal extends approximately 1 mile southwest from the island at the southern end of Karab Cove.

4. Junctions with Contemporary Surveys

Adequate junctions were effected with H-7139 (1946) on the southeast and H-7146 (1946) on the south. The junction with H-7145 (1946) on the west will be considered in the review of that survey.

5. Comparison with Prior Surveys

H-6936 (1943) scale 1:100,000

A line of soundings from this survey falls within the present survey in the vicinity of lat. 52° 22.0', long. 173° 33.8'. This is a reconnaissance survey and is superseded by the present survey.

6. Comparison with Chart 9198 (Latest print date 6/16/47)

A. Hydrography

The charted hydrography originates with advance information from the 1943-1946 surveys shown on Bp. 42073. The hydrography was revised in the Processing Office and during verification and is, therefore, completely superseded by the present survey.

B. Aids to Navigation

There are no aids to navigation within the limits of the present survey.

7. Condition of Survey

a. The protracting and plotting of the sounding records were adequately accomplished.

b. The field records and Descriptive Report are complete and adequate.

c. No hand lead development was made of the critical soundings listed in paragraph 9 of this review.

8. Compliance with Project Instructions

The present survey adequately complies with the Project Instructions, except as noted in paragraph 7c above.

9. Additional Field Work Recommended

This is a good basic survey; however, hand lead verification of the following shoals is recommended and in addition the two 6.9-fm. soundings tabulated below should be developed further.

Shoal	Latitude	Longitude
6.9 fathom	52° 22.60'	173° 35.22'
6.9 "	52° 22.53'	173° 35.18'
10.7 "	52° 22.51'	173° 37.65'
10.7 "	52° 22.56'	173° 37.64'
7.3 "	52° 22.68'	173° 36.99'

Examined and approved:

I. E. Rittenburg
Chief, Nautical Chart Branch

Casper M. Durgin
Chief, Division of Charts

K. G. Crosby
Chief, Section of Hydrography

C. K. Green
Chief, Division of Coastal Surveys

NAUTICAL CHARTS BRANCH

SURVEY NO. H7138 1946

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
4/14/48	9147	L.A. McGann	~~Before~~ (After) Verification and Review
5-11-63	8165	[illegible]	~~Before~~ After Verification and Review Exam Part'l Grypd Revised 2 subp & corr
10-28-92	16423	Ed Mark	~~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.