8201

Diag. Cht. Nos. 526, 10003- & 1107.

Form 504

U. S. DEPARTMENT OF COMMERCE

COAST AND GEODETIC SURVEY

NOTES FOR

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. HY-12455 *Office No.* H-8201

LOCALITY

State Maine

General locality Gulf of Maine, NE Part

Locality Browns Bank and Adjacent Waters

1955

CHIEF OF PARTY

Walter J. Chovan

LIBRARY & ARCHIVES

DATE MAR 29 1960

COMM-DC 61300

8201

Form 537
(Ed. June 1946)

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.

REGISTER No. H-8201

Field No. HY-12455

State Maine

General locality Gulf of Maine - Northeastern Part

Locality Browns Bank and Adjacent Waters

Scale 1:120,000 Date of survey 26 June - 28 Sept. 1955

Instructions dated 7 January 1955

Vessel HYDROGRAPHER

Chief of party Walter J. Chovan

Surveyed by C. A. George, G. E. Morris, J. D. Hodges, H. W. Keith, W. N. Martin, M. B. Miller.

Soundings taken by fathometer, graphic recorder, ~~hand lead, wire~~

Fathograms scaled by L. J. Shillenn, J. J. Curley, D. H. Straughan, L. C. Smith

Fathograms checked by D. Moscopulos

Protracted by M. B. Miller - R. J. Black

Soundings penciled by — A.G. Atwill

Soundings in fathoms ~~feet~~ at MLW ~~MLLW~~

REMARKS: Offshore Survey

U. S. GOVERNMENT PRINTING OFFICE 777032

APPROVAL SHEET

H8201

The field work accomplished on this survey was under my immediate supervision. Daily inspections of the records, fathograms, and boat sheet were made as the survey progressed.

The records, boat sheet, and plotting of the smooth sheet were reviewed and approved by me through the period of processing while I was Chief of Party.

The sounding lines in the northeastern and northwestern portions of the sheet do not meet the line spacing requirements as specified by the project instructions. The line spacing was increased to permit covering the entire sheet before the close of the field season. When field work is resumed in the area, additional lines should be run to bring the line spacing within the specified limits, particularly in the northwest corner around the 21 fathom shoal at Latitude 43°15.4', Longitude 66°20.5'.

Except as noted above, the survey can be considered complete and adequate.

Walter J. Chovan
Cdr. C&GS

Notes for

DESCRIPTIVE REPORT

to accompany

Hydrographic Survey H-8201 (HY-12455)

26 June - 28 September 1955

Ship HYDROGRAPHER Scale 1:120,000

Walter J. Chovan
Chief of Party

A. PROJECT:

This survey was made under instructions 22-SRO,S-2-HY, for project 1376, from the Director to the Commanding Officer, Ship HYDROGRAPHER dated 7 January 1955.

B. SURVEY LIMITS AND DATES:

This is a survey of that part of the Gulf of Maine which includes Browns Bank and waters immediately adjacent thereto. The survey began 26 June and concluded 28 September 1955.

The northern and eastern limits of the sheet are the project limits. The southern limit is latitude 42° 28.0'; the western, longitude 66° 33.0'.

Junctions were made to the south and west with contemporary surveys H-8202 and H-8200 (1:120,000, 1955). A junction was made with insert survey H-8197 (1:80,000;1955).

C. VESSEL AND EQUIPMENT:

All work in this survey was accomplished by the Ship HYDROGRAPHER. The ships turning radius at sounding speed was 80-120 meters depending upon wind or current conditions. There are no corrections for settlement and squat to soundings taken on the fathom scale. (See report forwarded 11/2/50)

Soundings were made by two 808-J type depth recorders (153 SPX and 132 SG). Their installation is such that either could be used at will and neither is considered a standby unit. Soundings were made to 160 fathoms with these graphic recorders.

Soundings in depths greater than 160 fathoms were made with an Edo model 185 fathometer.

D. TIDE AND CURRENT STATIONS:

No tide or current stations were occupied within the limits of this survey.

Hourly heights for the reduction of soundings were furnished by the Washington Office from the standard automatic gage at Bar Harbor, Maine.

Predicted soundings were used in the reduction of boat sheet soundings.

E. SMOOTH SHEET:

The sheet projection and EPI arcs were hand ruled by the Norfolk Processing Office. The ~~survey is~~ soundings are to be smooth ~~plotted~~ pencilled by the Norfolk Office.

This is an offshore survey and contains no shoreline or topographic details.

F. CONTROL STATIONS:

All the hydrography on this survey was controlled by EPI system. The EPI stations were located as follows:

EPI-A - Southwest Harbor, Maine
Latitude 44° 14' 47.65"
Longitude 68° 17' 37.61"

EPI-B - Cape Ann, Massachusetts
Latitude 42° 41' 21.79"
Longitude 70° 38' 07.48"

The geographic positions of these stations was determined by F. B. Quinn, Northeast District Officer, in 1955 and forwarded to the Norfolk Processing Office for use in the construction of the boat and smooth sheets.

G. SHORELINE AND TOPOGRAPHY:

This is an offshore survey.

H. SOUNDINGS:

All soundings on this survey were taken with two 808-J type depth recorders, for the shoaler depths, and for the greater depths soundings were taken with the Edo fathometer.

The paper speed travel and length of the stylus arms for the 808 machines was checked in accordance with HM-5554.

To obtain instrumental corrections, simultaneous comparisons were made between the 808 fathometers and a wire sounding machine, with an accurately calibrated sheave. Stranded wire was used, and the sheaves calibrated over a 100 fathom base in accordance with HM-4641.

Instrumental corrections for the Edo and NMC fathometers were determined by simultaneous comparisons with the 808 type fathometers.

No hand lead soundings were taken in the progress of this survey.

I. CONTROL OF HYDROGRAPHY:

The intersection of the two EPI arcs was not less than 29°for any portion of survey on this sheet.

EPI calibrations were made at the beginning and end of each trip to the working grounds. Calibrations were obtained at the site of a visually located buoy planted by this party.

All EPI correctors are entered in the sounding volumes, and a list of these correctors is attached to this report.

J. ADEQUACY OF SURVEY:

This survey is considered complete and adequate to supersede prior surveys. Junctions with contemporary surveys H-8202, H-8197 & H-8200 are satisfactory, as the depth curves are continuous at the junctions.

There are no contemporary surveys to the north of this sheet.

Boat sheet crossings are adequate.

K. CROSSLINES:

Approximately 7% of the hydrography on this survey is crosslines. No excessive discrepancies are noted.

L. COMPARISON WITH PRIOR SURVEYS:

There are no prior surveys of recent date in the area covered by this survey.

M. COMPARISON WITH CHART:

This survey was compared with Chart 71, print date 8/10/53, Revised date 8/24/59 corrected 3/26/55. Preliminary review items, from the Washington Office, noted on Charts 70 and 71, are also covered below.

In general, there appears to be good agreement between the charted depths and depth curves; and those of this survey. A more detailed discussion follows.

The 29 fathoms charted in latitude 43° 08.3', longitude 65° 45.5', was located as charted. Position 143 JA 42 minutes.

A sounding of 21 fathoms was located in latitude 43° 15.4', longitude 66° 25.1'; position 61 MA 47 minutes. The shoalest sounding, previously charted in this vicinity is 37 fathoms. The 21 fathoms from the present survey is recommended for charting.

The 30 fathoms charted in latitude 43° 15.4', longitude 66° 20.5' was slightly beyond the survey limits. However, a sounding of 29 fathoms was found, adjacent to the charted position (41 LA 42 minutes) to verify its existence. 1920 m SSE of

The shoal depths inside the 30 fathom curve on the extreme north west corner of this survey verify those previously charted in this area. However, the chart should be modified so that the depth curve configuration and least depths conform to the present survey.

The 47 fathoms charted in latitude 43° 00.0', longitude 65° 51.4' was not found by the present survey. The least depth located was 71 62 fathoms. 1200 m SSW

The below listed charted soundings were cited for investigation in the preliminary review. They were not verified by this survey. Soundings shown under H-8201 are those least depths found within 1500 meters of the charted soundings.

Latitude	Longitude		Chart 71	H-8201
	03.5'		19.0	
~~43° 04.0'~~	~~65° 20.0'~~		40	55 68
42° 59.7'	65° 42.1'	Removed from chart 71	30	68 ? area not developed
~~42° 55.3'~~	65° 44.4'	"	45	74? area not developed
42° 38.4'	65° 18.7'	"	40	49

Not on chart now

N. DANGERS AND SHOALS:

No new dangers or shoals, with the exception of that noted in M, were found within the limits of this survey.

O. COAST PILOT INFORMATION:

This is an offshore survey. During the field season the ship HYDROGRAPHER was based at the U. S. Naval Reserve at South Portland, Maine. No Coast Pilot revisions are recommended for Portland Harbor and eastern approaches.

P. AIDS TO NAVIGATION:

There were no fixed or floating aids to navigation in this portion of the survey.

Z. TABULATION OF APPLICABLE DATA:

The EPI Report, Velocity Report, Fathometer Report, and Settlement and Squat Report, for the entire project will be forwarded under separate cover. Copies will be furnished the processing office. The lists of applicable correctors for this survey are attached.

E.K. McCaffrey
LT(jg), C&GS

Forwarded:

J.C. Partington
CAPT, C&GS
Chief of Party

TIDE NOTE

Tide Station:	Bar Harbor, Maine
Latitude:	44° 25.5'N
Longitude:	68° 12.3'W
Plane of Reference:	Mean low water = 3.4 feet on tide staff (Directors letter of 6 June 1955; 36-275-982h)
Area Covered:	No. 1 - The entire area of this survey east of longitude 65° 36'W.
	No. 2 - The entire area of this survey west of the above longitude.
Time Correction:	Area No. 1: -2 hr. (From 75th Meridian Time)
	Area No. 2: -1 hr. (From 75th Meridian Time)
Height Correction:	0.7 Ratio of Range (Both areas)

This station is a standard automatic tide gage and was last inspected by the East Coast Tide Party August 1955. It was previously inspected by an officer from this ship at the start of the field season to insure its proper operation. The time and height corrections were furnished by the Washington Office.

STATISTICS

to accompany Survey H-8201 (HY-12455)

Date(1955)	Day Letter	Volume	No. Pos.	Stat. Mi. Soundings
26 June	A	1	16	31.0
8 July	B	1	20	19.5
9 "	C	1	154	247.8
10 "	D	1-2	145	183.5
11 "	E	2	150	258.2
12 "	F	2-3	129	225.0
13 "	G	3	166	243.8
14 "	H	3-4	133	234.6
24 "	J	4	105	157.7
25 "	K	4-5	160	241.3
26 "	L	5	160	262.3
27 "	M	5-6	160	276.8
28 "	N	6	159	246.7
29 "	P	7	43	62.1
7 August	Q	7	83	99.4
8 "	R	7	81	115.0
9 "	S	7	37	63.3
12 "	T	8	20	28.8
23 "	U	8	9	11.8
24 "	V	8	21	36.8
25 "	W	8	61	93.4
26 "	X	8	76	125.9
27 "	Y	8-9	144	256.7
28 "	Z	9	155	278.5
29 "	AA	9-10	152	273.0
30 "	BA	10	106	160.3
8 September	CA	10-11	161	221.1
9 "	DA	11	157	246.7
10 "	EA	12	156	264.7
11 "	FA	12-13	161	265.2
12 "	GA	13	162	243.8
13 "	HA	13-14	170	263.8
14 "	JA	14	176	277.6
15 "	KA	14-15	78	110.0
26 "	LA	15	86	133.4
27 "	MA	15	168	278.3
28 "	NA	15-16	78	130.9
Totals:		16	4198	6668.7

No. Oceanographic Stations: 6

Area Surveyed: 4891.74 square statute miles

PROJECT 1376

1956

ABSTRACT OF EPI CORRECTORS

Trip No.	Dates	EPIA	EPIB	Remarks
1	4-13 May	-5.5	-6.0	*Positions 79 to 91 Sheet H-8202 only, Set No. 11
			-4.3*	
2	19-27 May	-3.5	-5.1	
3	6-15 June	-7.5	-6.3	
4	20-29 June	-6.1	-5.8	
5	7-15 July	-3.8	-3.5	
6	22-30 July	-4.9	-4.7	
7	5-14 August	-4.1	-3.8	
8	22-31 August	-3.1	-4.6	
9	6-16 Sept.	-2.5	-4.9	
10	22-30 Sept.	-2.4	-4.5	

CHKD: H/K

ABSTRACT

INSTRUMENTAL & PHASE CORRECTIONS

SOC Fathometers

132

Scale	0.2 corr.	0.5 corr.
A Scale	0.0	
B Scale	-0.8	
C Scale thru June	-1.0	-1.0
C Scale July on	-2.0	-2.0
D Scale thru June	-0.6	-0.5
D Scale 1 thru 23 July	-1.6	-2.0
D Scale 24 July on	-2.6	-2.5

153

A Scale	0.0	
B Scale	+1.2	
C Scale thru 9 September	+1.2	+1.0
C Scale 10 September on	+0.6	+0.5
D Scale thru 9 September	-0.2	-0.5
D Scale 10 September on	-0.8	-1.0

ABSTRACT

INSTRUMENTAL & PHASE CORRECTIONS

Fdo Fathometer

Depth & Scale	Correction
0 - 150	-2.5
150 - 600	-3.0
600 - 1800	-4.0

NMC II Fathometer *

Depth & Scale	Correction
0 - 400	∠16.0
400 - 800	∠30.0
Deep Scale	∠16.0

* See Fathometer Correction Report, NMC II Fathometer, Instrumental & Phase Corrections.

NORFOLK PROCESSING OFFICE
ADDENDUM
To Accompany

HYDROGRAPHIC SURVEY H-8201 (HY-12455)

GENERAL

All positions were smooth plotted and numbered in the field by personnel of Ship Hydrographer. All soundings and depth curves were penciled in this Office.

SOUNDINGS

Soundings are in good agreement at crossings considering the water depths and the bottom irregularities encountered in the shoaler areas.

ADDITIONAL CHART COMPARISONS

LATITUDE	LONGITUDE	CHARTED DEPTHS	SMOOTH SHEET DEPTHS
42-50.0	66-03.3	29 Fath.	31 Fath.
42-49.5	66-13.0	16 "	18 "
43-00.0	65-51.5	47 "	62 "
42-55.5	65-19.0	57 "	85 "
42-48.7	66-27.0	40.0"	42 "
42-49.0	66-20.0	23 "	26 "
42-43.0	66-01.3	32 "	40 "

Norfolk, Va.
23 March 1960

Respectfully submitted,

Hugh L. Profatt
Cartographer

RHC

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Rev. Apr. 1950

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Coastal Surveys~~

Division of Charts: R. H. Carstens 21 June 1960

Plane of reference approved in
16 volumes of sounding records for

HYDROGRAPHIC SHEET 8201

Locality Gulf of Maine, Maine

Chief of Party: W. J. Chovan in 1955
Plane of reference is mean low water, reading
3.4 ft. on tide staff at Bar Harbor
ft. below B. M.

Height of mean high water above plane of reference at the working grounds is 7.3 feet.

Condition of records satisfactory except as noted below:

William Hobuo
Chief, Tides Branch
~~Chief, Division of Tides and Current~~

U. S. GOVERNMENT PRINTING OFFICE 877988

VERIFIER'S REPORT OF HYDROGRAPHIC SURVEY NO. H-8201

The verifier should deal with the present hydrographic survey only, as the reviewer considers its relation to previous surveys and published charts. He should be thoroughly familiar with Chapters 3, 7 and 9 of the Hydrographic Manual.

1. The descriptive report was consulted and appropriate notes were made in soft pencil regarding action taken.

2. Soundings originating with the survey and mentioned in the descriptive report have been verified, including latitude and longitude.

3. All reference to survey sheets mentioned in the descriptive report include the registry number and year.

4. Geographic names of hydrographic features if on sheet are in slanting lettering and of topographic features in vertical lettering.

5. All items affecting the plotting of the survey which are entered in the remarks columns of the sounding records were noted and check marked. In all cases appropriate action was taken.

6. All positions verified instrumentally were check marked in the sounding records.

7. All critical soundings are clear and legible and are a little larger than the adjacent soundings.

8. The metal protractor has been checked within the last three months.

9. The protracting and plotting of all bad crossings were verified.

10 All detached positions locating critical soundings, rocks or buoys were verified.

11. The boat sheet was compared with the smooth sheet.

12 The spacing of soundings as recorded in the records was closely followed.

13. The bottom characteristics were shown on outstanding shoals.

14. The reduction and plotting of doubtful soundings were checked.

15. The transfer of contemporary topographic information was carefully examined.

16. All junctions were transferred and overlapping curves made identical.

17. The notation "JOINS H- (19--)" was added in ink for all contemporary adjoining or overlapping sheets now registered. Those not verified are shown in pencil.

18. The depth curves have been inspected before inking.

19. All triangulation stations and transfer of topographic and hydrographic signals were checked.

20. Heights of rocks were checked against range of tide.

21. Rocks transferred from topographic surveys have a dotted curve where shown thereon. Rocks located accurately by hydrographer are encircled by dotted red curve.

22. Unnecessary pencil notes have been removed.

23. Objects on which signals are located and which fall outside of the low water line have been described on the sheet.

24. The low water line and delineation of shoal areas have been properly shown.

25. Degree and minutes values and symbols have been checked.

26. Questionable soundings have been checked on the fathograms.

27. Source of shoreline and signals (when not given in report).

28. All notes on sheet are in accordance with figure 171 in the Hydrographic Manual.

29. All aids located, with those on contemporary topographic sheets, have been shown on survey.

30. Depth curves were satisfactory except as follows:

31. Sounding line crossings were satisfactory except as follows:

32. Junctions with contemporary surveys were satisfactory except as follows:

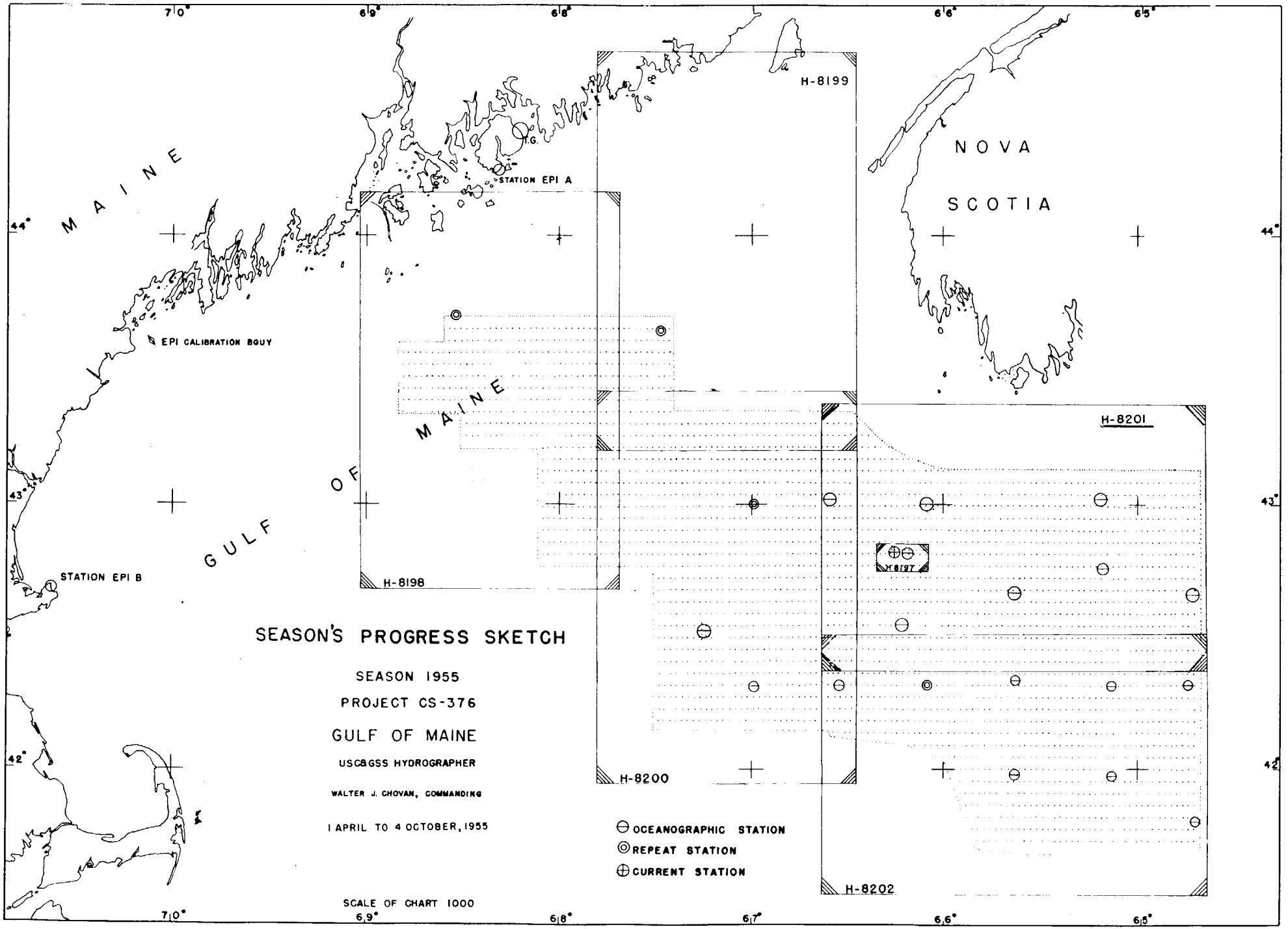
33. Condition of sounding records was satisfactory except as follows:

34. The protracting was satisfactory except as follows:

35. The field plotting of soundings was satisfactory except as follows:

36. Notes to reviewer:

Verified by Date


7|0°
6|9°
6|8°
6|7°
6|6°
6|5°
44°
43°
42°
MAINE
GULF OF MAINE
NOVA SCOTIA
H-8199
H-8198
H-8200
H-8201
H-8202
H-8197
T.G.
STATION EPI A
EPI CALIBRATION BOUY
STATION EPI B
SEASON'S PROGRESS SKETCH
SEASON 1955
PROJECT CS-376
GULF OF MAINE
USC&GSS HYDROGRAPHER
WALTER J. CHOVAN, COMMANDING
1 APRIL TO 4 OCTOBER, 1955
OCEANOGRAPHIC STATION
REPEAT STATION
CURRENT STATION
SCALE OF CHART 1000

Form 946

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8201

Records accompanying survey: Smooth sheets 1; boat sheets 1; sounding vols. 16; wire drag vols. ....; Descriptive Reports 1; graphic recorder envelopes 12; special reports, etc. 1 Cahier-E.P.I. Abstracts 1 Roll overlay tracings

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

Number of positions on sheet		.....
Number of positions checked		.....
Number of positions revised		.....
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	.....
Special adjustments	Time	.....

Verification by ..... Total time ..... Date .....

Reviewed by ..... Time ..... Date .....

FORM 197
(7- 16-55)

GEOGRAPHIC NAMES

Survey No. H-8201

Name on Survey	A: On Chart No. 1600	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	
Gulf of Maine (Title)										1
Browns Bank	✓									2
										3
										4
										5
										6
				George D. Baer						7
				18 April 1960						8
										9
										10
										11
										12
										13
										14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

ABSTRACT

VELOCITY CORRECTIONS

1955

Sheet H-8201

May through 27 July both halves, September for East half only

Table #1 (A) Table #2

Edo & NMC

Fm.	Corr.
31 - 42	∠2.2
42 - 70	∠2.4
70 - 89	∠2.6
89 - 101	∠2.8
101 - 144	∠3.0
144 - 150	∠3.5
150 - 179	∠3.0
179 - 280	∠4.0
280 - 470	∠5.0

808

Fm.	Corr.
21 - 26	-0.3
26 - 31	-0.4
31 - 40	-0.6
40 - 50	-0.8
50 - 62	-1.0
62 - 74	-1.2
74 - 86	-1.4
86 - 101	-1.6
101 - end	-2.0

28 July through September west half, August only East half

Table #3 (D) Table #4

Edo & NMC

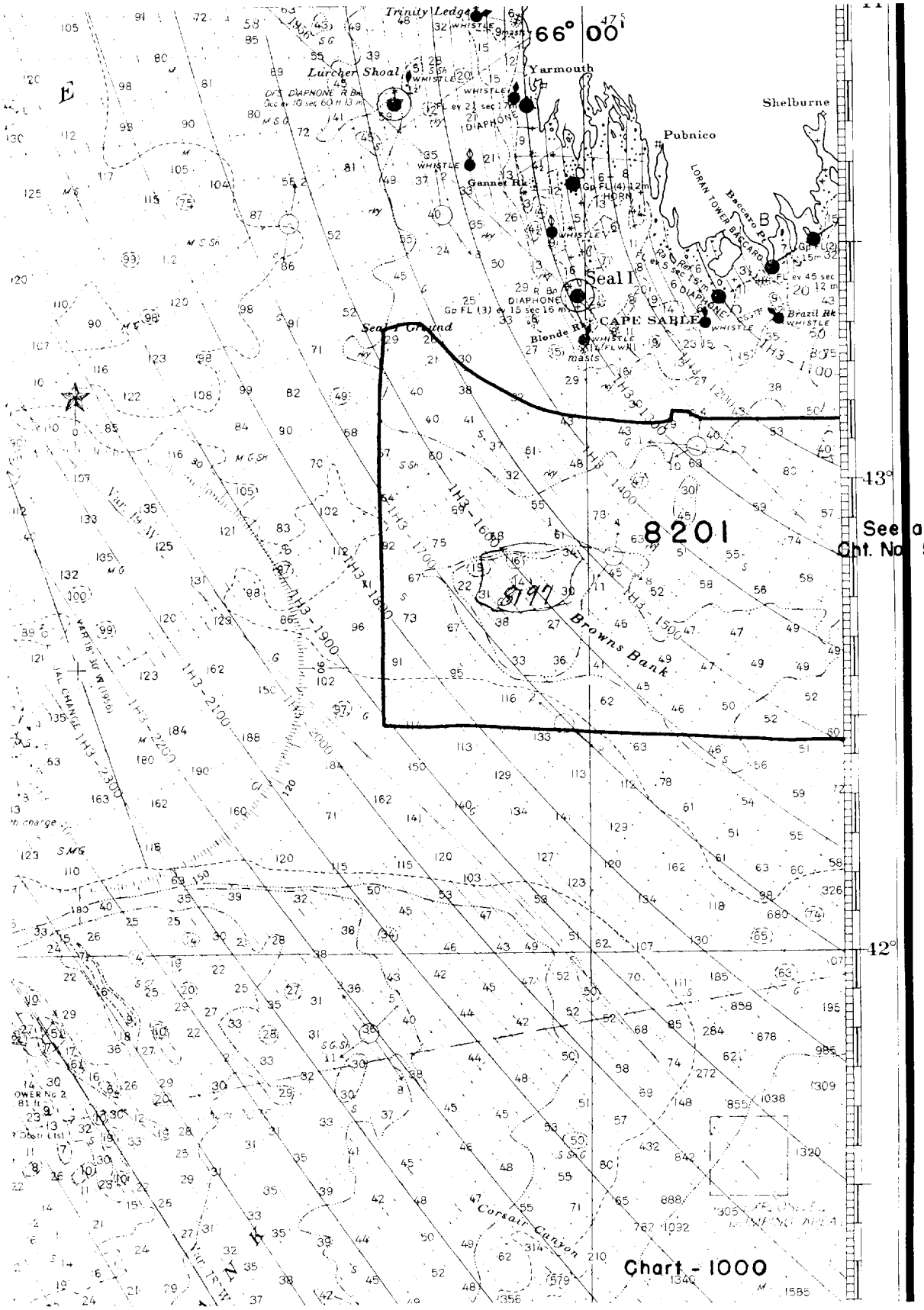
Fm.	Corr.
31 - 50	∠2.6
50 - 65	∠2.8
65 - 79	∠3.0
79 - 91	∠3.2
91 - 101	∠3.4
101 - 126	∠3.5
126 - 280	∠4.0
280 - 470	∠5.0

808

Fm.	Corr.
0 - 22	0.0
22 - 30	-0.1
30 - 37	-0.2
37 - 51	-0.4
51 - 71	-0.6
71 - 93	-0.8
93 - 125	-1.0
125 - 150	-1.5
150 - end	-2.0

Comp: HWK
Chkd: EMcC

EDO & NMC corrections include draft correction of ∠2.0 fm.


66° 00'
Trinity Ledge
Lurcher Shoal
Yarmouth
Shelburne
Pubnico
Gannet Rk
Seal I
CAPE SABLE
Brazil Rk
Blonde Rk
Seal I Ground
8201
Browns Bank
Corsair Canyon
43°
42°
See also Diag. Cht. No. 526
Chart - 1000

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8201

Record of Application to Charts

not reviewed

DATE	CHART	CARTOGRAPHER	REMARKS
6-20-60	71	J M. Albert	No critical correction Before ~~After~~ Verification and Review
June 100	1000	J T W	Since a few soundings Before ~~After~~ Verification and Review BMA
8-24-60	70	Chas R Wattman	no correction Before ~~After~~ Verification and Review
3-8-61	1107	R. E. Elkins	Before ~~After~~ Verification and Review Partly applied Revised 1 sdg.
10-18-61	1106	R. E. Elkins	Before ~~After~~ Verification and Review Partly applied Revised soundings & curves.
3-7-90	13260	Russell P Kennedy	Before ~~After~~ Verification and Review Adequately applied
			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.