8202

Diag. Cht. No. 526, 1000-3 & 1107.

Form 504

U. S. DEPARTMENT OF COMMERCE

COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. HY-12555 *Office No.* H-8202

LOCALITY

State MAINE

General locality GULF OF MAINE - NE PART

Locality SOUTH OF BROWNS BANK -

EAST OF GEORGES BANK

19 55

CHIEF OF PARTY

Walter J. Chovan

COMM-DC 61300

8202

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-8202

Field No. HY-12555

State Maine

General locality Gulf of Maine - Northeastern Part

Locality South of Browns Bank - East of Georges Bank

Scale 1:120,000 Date of survey 6 May - 26 June 1955

Instructions dated 7 January 1955

Vessel HYDROGRAPHER

Chief of party Walter J. Chovan

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

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

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

Fathograms checked by D. Moscopulos

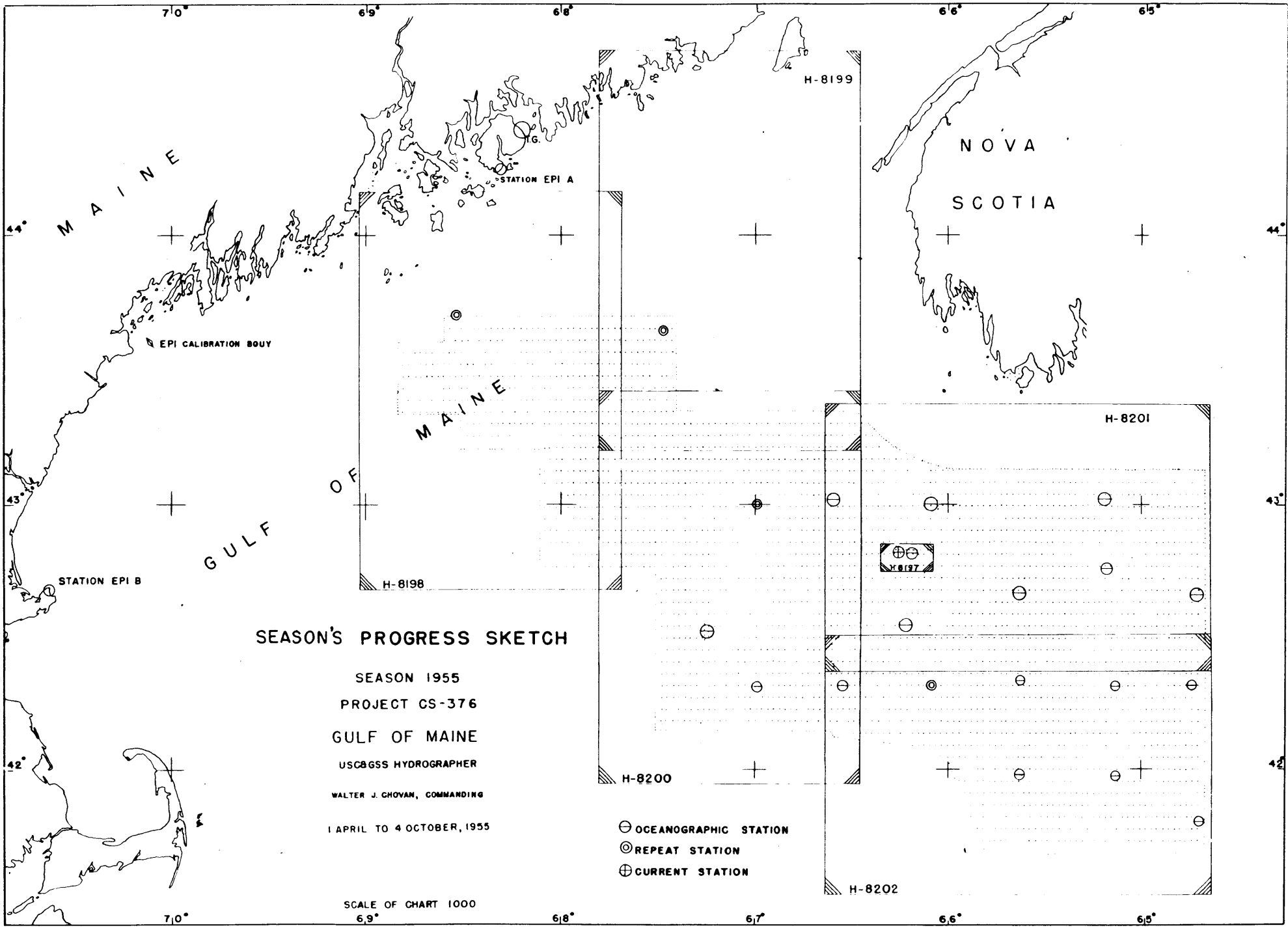
Protracted by E. K. McCaffrey, G. L. Fernandez

Soundings penciled by — A.G. Atwill

Soundings in fathoms ~~feet~~ ~~&~~ MLW ~~MLLW~~

REMARKS: Offshore Survey

U. S. GOVERNMENT PRINTING OFFICE 777032


7°0'
6°9'
6°8'
6°7'
6°6'
6°5'
44°
43°
42°
MAINE
GULF OF MAINE
NOVA SCOTIA
T.G.
STATION EPI A
EPI CALIBRATION BOUY
STATION EPI B
H-8199
H-8201
H-8198
H-8197
H-8200
H-8202
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

APPROVAL SHEET

H8202

The field work accomplished on this survey was under my immediate supervision. Daily inspections of the fathograms, records, 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 survey is considered complete and adequate.

Walter J. Chovan
Cdr. C&GS

Notes for

DESCRIPTIVE REPORT

to accompany

Hydrographic Survey H-8202 (HY-12555)

6 May - 26 June 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 lying south of Browns Bank and east of Georges Bank.

The southern and eastern limits of the sheet are the project limits. The northern limit is latitude 42° 27.0', the western, longitude 66° 34.0'.

A junction was made on the south with prior survey H-5112 (1:100,000, 1930). Junctions to the west and north were made with contemporary surveys H-8200 and H-8201 (1:120,000, 1955).

This survey began 6 May and concluded 26 June 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. The"Settlement and Squat Report", forwarded 11/2/50 shows that no corrections need be applied to soundings on the fathom scale, and there have been no changes in the ships hull or trim since that date.

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 as 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. For the below listed periods the NMC-2 fathometer was used since the Edo was inoperative:

7 May 1518-1530
10 May 0650-0656
21 May 0630-0728
12 June 1032-1050

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 tides 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 soundings are to be smooth penciled.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 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, and with the NMC fathometer in the instances noted in paragraph C.

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 31° 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 survey H-8201 are satisfactory, as the depth curves are continuous at the junctions.

Junctions with H-5112 (1930) were adequate to the 100 fathom curve. Soundings beyond the 100 fathoms curve of H-5112 differ widely from the present survey, differing as much as 200 fathoms from the present survey.

Boat sheet crossings are adequate.

K. CROSSLINES:

Approximately 6% of the hydrography on this survey is crosslines. No excessive discrepancies are noted.

L. COMPARISON WITH PRIOR SURVEYS:

The prior survey covering this sheet is H-5112. Since the major portion of it on this sheet lies beyond the 100 fathom curve, its soundings are inadequate (see project instructions, paragraph 14) for comparison with the present survey.

M. COMPARISON WITH CHART:

This survey was compared with Chart 71, print date 8/10/53, corrected to 3/26/55. In general, there was little agreement with charted soundings; these latter originating with early track line surveys and probably considerably displaced from their true location. A detailed comparison follows:

The 58 fathoms charted in latitude 42° 11.9', longitude 65° 17.0' lies outside the 100 fathom curve and in depths exceeding 300 fathoms. It is recommended that it, and the 54 fathoms charted 3.2 miles NNE of it, be deleted from the chart. It is recommended that the 100 fathom curve charted in this area be altered to conform with that of the present survey.

The below listed charted soundings are from a track line survey (H-1305) of 1875, and were cited in the preliminary review for investigation. A detailed search was not made, however, adjacent soundings of the present survey indicate that their existence is doubtful. As noted in the preliminary review, they are probably displaced.

Latitude	Longitude	Chart 71	H-8202
42° 10.0'	65° 25.8'	60	100
42° 10.0'	65° 08.4'	64	828
42° 06.0'	65° 13.1'	89	843
42° 04.5'	65° 23.0'	74	526
42° 01.7'	65° 31.8'	65	384
41° 58.8'	65° 16.9'	107	953
41° 57.5'	65° 28.6'	63	606
41° 53.9'	65° 21.0'	195	968

N. DANGERS AND SHOALS:

No dangers or shoals 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 Base 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.(j.g.)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-8202 (HY-12555)

Date (1955)	Day Letter	Volume	No. Pos.	Stat. Mi. Sdg.
6 May	A	1	64	101.8
7 "	B	1	126	219.6
8 "	C	1-2	142	257.0
9 "	D	2	134	191.7
10 "	E	2-3	121	239.2
11 "	F	3	136	223.7
12 "	G	3-4	67	117.6
20 "	H	4	56	100.0
21 "	J	4	119	193.8
22 "	K	4-5	150	276.0
23 "	L	5	160	195.9
24 "	M	5-6	158	188.6
25 "	N	6-7	149	214.5
26 "	P	7	7	10.3
9 June	Q	7	90	165.3
10 "	R	7	148	246.3
11 "	S	8	173	253.6
12 "	T	8-9	166	253.3
13 "	U	9	157	224.2
14 "	V	9	66	104.6
21 "	W	10	49	66.7
22 "	X	10	169	207.1
23 "	Y	10-11	154	180.5
24 "	Z	11	133	148.7
25 "	AA	11-12	169	201.6
26 "	BA	12	80	112.1
Totals:		12	3159	4693.7

No. Oceanogra phic Stations: 8

Area Surveyed: 4560.82 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

Edo 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.

ABSTRACT

VELOCITY CORRECTIONS

1955

Sheet H-8202

Table 1

808

Northeast Half (E)

Fm.	Corr.
31 - 34	-0.8
34 - 42	-1.0
42 - 51	-1.2
51 - 64	-1.4
64 - 82	-1.6
82 - 101	-1.8
101 - end	-2.0

Table 2

Edo & NMC

Fm.	Corr.
31 - 53	+1.8
53 - 72	+2.0
72 - 85	+2.2
85 - 97	+2.4
97 - 101	+2.6
101 - 116	+2.5
116 - 184	+3.0
184 - 280	+4.0
280 - 470	+5.0
470 - 800	+6.0
800 - 1400	+8.0
1400 & over	+10.0

Table 3

808

Southwest Half (A)

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

Table 4

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
470 - 800	+6.0
800 - 1400	+8.0
1400 & over	+10.0

Comp: HWK
Chkd: EMcC

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

ABSTRACT

INSTRUMENTAL & PHASE CORRECTIONS

SQS 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

Crossing Discrepancies by Smooth Plotter.

42° 24.0 Line 34-36 R (running North) 3-4 fms Too deep for area
65° 52.7

42° 25.6 Line 132-136 N (runs W) 2-4 fms too shoal for area
65° 46.5

42° 19.5 Line 73-80 F (runs E) 1-2 fms Too shoal
65° 36.2

42° 23.5
65° 30.1 Line 122-124 N (runs W) 1 fm too shoal

42° 15.5
65° 17.3 Line 10-11 M (runs E) Too shoal for area

20.3
65° 04.5 Line 85-86 M too shoal

42° 17.8
65° 14.8 Line 57-58 N (runs S) Too shoal

42° 21.4
64° 58.3 Line 94-96 F too deep for area

42° 22.5 Lines 91-92 C
64° 50.0 Line 116-117 K K day does not pick up shoal on C day.

42° 11
64° 55.5 90-92 K runs too shoal for area

42° 07.7
65° 32.5 33-35 K runs shoal for area

42° 09.4
65° 23.5 98-99 L too shoal for area

41° 59.5
65° 52.5 — 16-18 R — NUMS approx 2 fms shoal

42° 04
65° 00.5 — 95-97 J — NUMS too shoal for area

41° 50.6
65° 45.4 — 35-39 Z — too deep

41° 53.
65° 33 — 21-22 Z — Too deep

41° 51.5
65° 04. — 35-36 J — too deep - EDO signals not coming in properly

FORM 197
(3-16-55)

GEOGRAPHIC NAMES

Survey No. H-8202

Name on Survey	A: On Chart No. 71	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: BGN	
Gulf of Maine (TITLE)	✓									1
Browns Bank	✓								✓	2
Georges Bank	✓								✓	3
										4
										5
										6
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										27

George R. Bace.
Geographic Consultant
15 June 1960

Form 946

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8202

Records accompanying survey: Smooth sheets 1;

boat sheets 1; sounding vols. 12; wire drag vols. ;

Descriptive Reports 1; graphic recorder envelopes 13;

special reports, etc. 1 Cahier-EPI Abstracts

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 .....

US COMM C&GS DC

VERIFIER'S REPORT OF HYDROGRAPHIC SURVEY NO. H- 8202

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

NORFOLK PROCESSING OFFICE
ADDENDUM
To Accompany

HYDROGRAPHIC SURVEY H-8202 (Hy-12555)

GENERAL

This survey was received from Ship Hydrographer in a partially completed condition. All positions were plotted and the position numbers inked aboard ship. Soundings and depth curves were penciled in this office.

SOUNDINGS

Agreement of soundings at crossings is generally good in this area of irregular bottom. However, there are discrepancies which are believed caused by position displacement, indicated by variations in plotting time, frequent and erratic course changes, and the normal error inherent in EPI control when used at this distance

See the attached list of crossing discrepancies which was compiled by the smooth plotter.

Norfolk, Va.
19 April 1960

Respectfully submitted,

Hugh L. Proffitt

Hugh L. Proffitt
Cartographer

RHC

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Coastal Surveys~~ 22 June 1960

Division of Charts: R. H. Carstens

Plane of reference approved in
12 volumes of sounding records for

HYDROGRAPHIC SHEET 8202

Locality Gulf of Maine, Maine

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

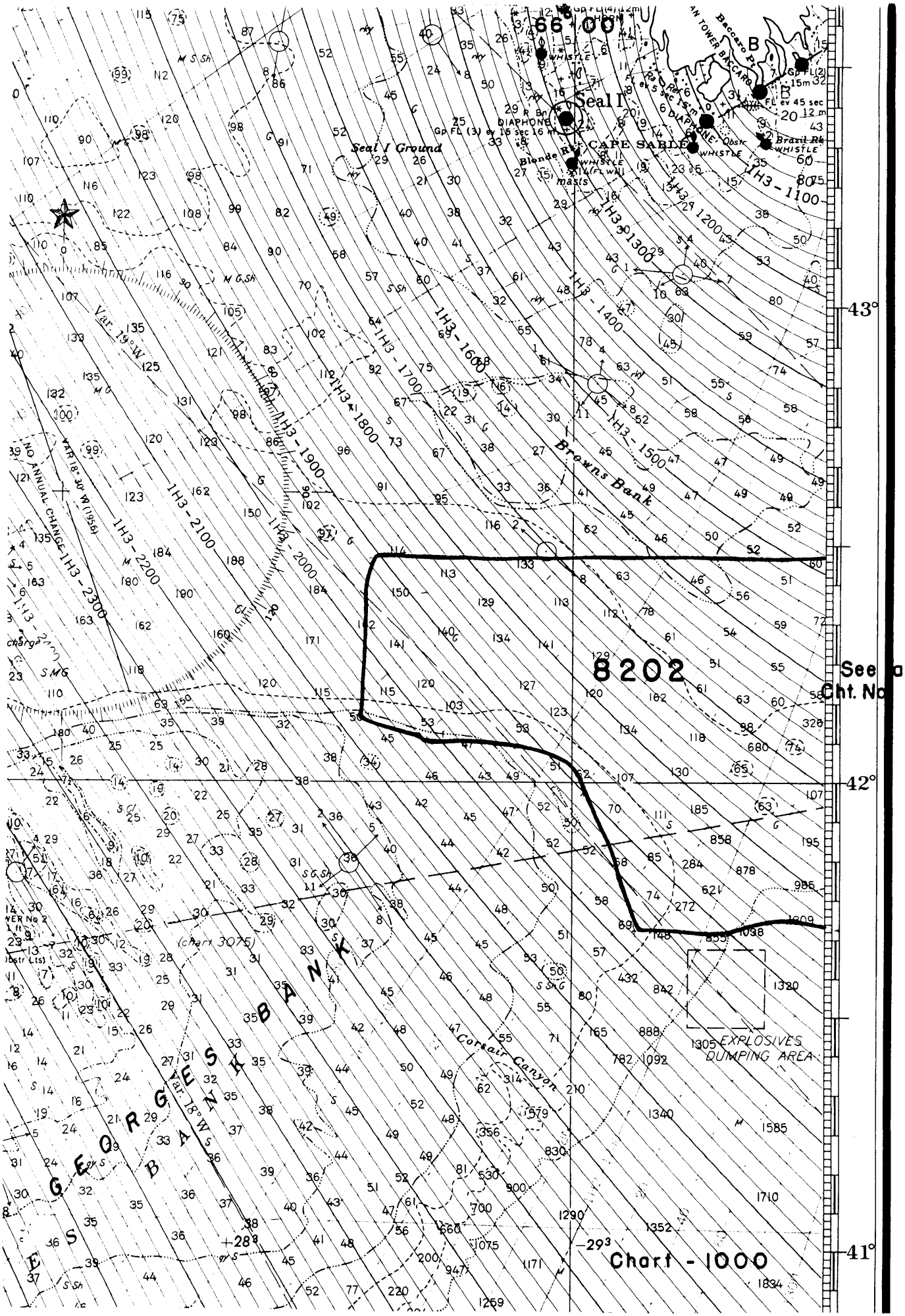
Height of mean high water above plane of reference is 7.3 feet.

Condition of records satisfactory except as noted below:

William Shofnos
Chief, Tides Branch

~~Chief, Division of Tides and Currents.~~

U. S. GOVERNMENT PRINTING OFFICE 877033


66°00'
Seal I
Seal I Ground
CAPE SABLE
Baccaro Pt
Brazil Rk
Blonde Rk
Browns Bank
Corsair Canyon
EXPLOSIVES DUMPING AREA
GEORGES BANK
8202
Chart - 1000
See also Diag. Cht. No. 526.
43°
42°
41°
1H3 - 1100
1H3 - 1200
1H3 - 1300
1H3 - 1400
1H3 - 1500
1H3 - 1600
1H3 - 1700
1H3 - 1800
1H3 - 1900
1H3 - 2000
1H3 - 2100
1H3 - 2200
1H3 - 2300
Var. 19°W
Var. 18°W
Var 18° 30' W (1956)
ANNUAL CHANGE 1H3 - 2300
(chart 3075)

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8202

Record of Application to Charts

not reviewed

DATE	CHART	CARTOGRAPHER	REMARKS
6-20-60	71	J.M. Albert	No correction Before ~~After~~ Verification and Review
June 1960	1000	J.T.W.	Revise a few edgs. to agree with chart 71 Before ~~After~~ Verification and Review BMA
8-24-60	70	C.R. Willmann	no corr. Before ~~After~~ Verification and Review
3-8-61	1107	R.E. Elkins	Before ~~After~~ Verification and Review Partly applied. No revisions.
10-18-61	1106	R.E. Elkins	Before ~~After~~ Verification and Review Partly applied Revised & added several soundings.
7-22-63	3075	h.j. keeler	Before ~~After~~ Verification and Review Part. Applied. Revised & added soundings and depth curves.
11-15-63	1107	G.R McCann	Before ~~After~~ Verification and Review Partly applied Reapplied Hsvc chart 1106
1-11-80	13204	Russell P Kennedy	Before After Verification and Review Adequately applied
2-12-90	13006	Russell P Kennedy	Before ~~After~~ Verification and Review Adequately applied. dig 47
2-23-90	13260	Russell P Kennedy	Before ~~After~~ Verification and Review Adequately applied

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.