8220

Diag. Cht. Nos. 1216-2 and 1217-2.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. BN-1354 Office No. H-8220

LOCALITY

State New Jersey

General locality

Locality Little Egg Inlet

1954

CHIEF OF PARTY

H. J. Seaborg

LIBRARY & ARCHIVES

DATE January 21, 1958

B-1870-1 (1)

8220

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-8220

Field No. BN - 1354

State New Jersey

General locality ~~South Jersey Coast~~

Locality Little Egg Inlet

Scale 1:10,000 Date of survey 8/11 to 10/28, 1954

Instructions dated 4 May 1954, 8 October 1954

Vessel LAUNCH CS - 175

Chief of party Harold J. Seaborg

Surveyed by J. R. Plaggmier, R. H. Houlder

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

Fathograms scaled by personnel of Ship BOWEN

Fathograms checked by R. H. Houlder

Protracted by W.L. Jonns

Soundings penciled by W.L. Jonns

Soundings in ~~fathoms~~ feet at MLW ~~MLLW~~ AND ARE TRUE DEPTHS

REMARKS:

U. S. GOVERNMENT PRINTING OFFICE 16—66520-1

D E S C R I P T I V E R E P O R T

to accompany

INSHORE HYDROGRAPHIC SURVEYS — FIELD NOS. BN-1254, H-8220(1954) 1354, 1454

U. S. C. & G. S. Ship B O W E N — Harold J. Seaberg, Commanding

Scale 1:10,000 — 11 August to 28 October, 1954

A. PROJECT:

Project CS-373 was performed under instructions dated 4 May, 1954 and supplemental instructions in the letter dated 8 October 1954.

B. SURVEY LIMITS AND DATES:

A basic hydrographic survey was accomplished in the vicinities of Beach Haven, Little Egg, and Brigantine Inlets, New Jersey.

I. BN-1254: H-8219(1954) Work commenced on 30 September and ended on 28 October, 1954. Junctions were made with contemporary surveys BN-1354 and BN-2154; and with prior surveys H-6216, 1:10,000, 1935; and H-6225, 1:10,000, 1937. Limits of the survey on this sheet are Latitudes 39°-32', 39°-34.5', and Longitudes 74°-12', 74°-20.1'.

II. BN-1354: H-8220(1954) Work commenced on 11 August and ended on 28 October, 1954. Junctions were made with contemporary surveys BN-1254, BN-1454 and BN-2154, and with prior surveys H-5893, 1:10,000, 1935. Limits of the survey on this sheet are Latitudes 39°-28', 39°-32' and Longitudes 74°-23.5' and 74°-14.7'.

III. BN-1454: H-8221(1954) Work commenced on 9 September and ended on 25 October, 1954. Junctions were made with contemporary surveys BN-1354 and BN-2154, and with prior surveys H-6144, 1:10,000, 1936, and H-6196, 1:10,000, 1936. Limits of the survey on this sheet are Latitudes 39°-24.3', 39°-28.1', and Longitudes 74°-17', 74°-21.7'.

IV. A graphical presentation of the Sheet Limits is shown on chart section appended to this report entitled "TIDAL AREAS".

C. VESSELS AND EQUIPMENT:

The survey was accomplished using LAUNCH CS-175 and an aluminum skiff. LAUNCH CS-175 is a 31 foot plywood boat drawing one foot, ten inches of water. It has a turning radius of about 10 meters at the sounding speed of 10 knots.

The launch was mostly based at the Little Egg Inlet Coast Guard Lifeboat Station.

All soundings were obtained using 808-J type portable depth recorders and sounding poles. Fathometers 100s and 157spx were used on the three sheets. A sounding pole was used only at the extreme inshore ends of sounding lines and when passing over shoals, to supplement the fathometer.

D. TIDE AND CURRENT STATIONS:

I. Tides: See tide note appended to this report.

II. Currents: No current stations were observed.

Strong currents were found thru the access channel to Brigantine Channel, and thru the deep water areas inside Beach Haven and Little Egg Inlets.

E. BOAT SHEETS:

Boat sheets were prepared and furnished by the Washington Office.

F. CONTROL STATIONS:

A list of control stations is appended to this report. These stations were located by triangulation, topographic, hydrographic, and photogrammetric methods. (See Norfolk List of Signals)

G. SHORELINE AND TOPOGRAPHY:

T-9505N, T-9504N, T-9501S (All surveys reviewed.

1950 Photogrammetric surveys provided the basic source for shoreline and topographic details. Extensive changes around the entrances to the inlets necessitated partial relocation of the hight water line by sextant fixes. The revised shoreline is shown in red on the photogrammetric manuscripts (BpT-51974(T-9501S) and T-71976(T-9505N)) and on the Smooth Sheet.

H. SOUNDINGS:

All soundings were obtained by using Submarine Signal Company type 808-J portable depth recorders, and sounding poles.

Standard procedure was used in obtaining all the usual corrections applicable. These corrections have all been entered and checked in the sounding volumes and the analysis forwarded to the Norfolk Processing Office.

Leadline soundings and bottom characteristics were obtained in accordance with the Hydrographic Manual.

I. CONTROL OF HYDROGRAPHY:

The survey was controlled by visual fixes except in the upper reaches of creeks, where hydrography was referred to topographic details.

J. ADEQUACY OF SURVEYS:

H-8219(1954)

The survey on Sheet BN-1254 is considered complete and adequate along the outer coast. The inland survey is as complete as time would allow. Additional work would be necessary to make this an adequate basic survey; however the present hydrography clearly indicates the character of the area.

H-8220(1954) H-8221(1954)

The surveys on Sheets BN-1354 and BN-1454 are considered adequate and complete.

K. CROSS LINES:

Cross lines were run in compliance with Paragraph 357 of the Hydrographic Manual.

L. COMPARISON WITH CHART AND PRIOR SURVEYS:

A comparison was made with prior surveys Nos. H-6216, 1:10,000, 1935-6; H-6225, 1:20,000, 1937; H-6195, 1:10,000, 1936; [redacted] H-5893, 1:10,000, 1935; H-6145, 1:10,000, 1935; H-6196, 1:10,000, 1936; and with charts Nos. 825, 826, 1216, and 1217. A satisfactory junction was made with prior surveys in the Great Bay area; however in the areas near the inlets the bottom has changed extensively.

With reference to that part of the preliminary review dated 18 March 1954, which relates to the three launch sheets, the following conclusions were derived.

Item No. 1.

The areas referred to are undergoing rapid and erratic changes as evidenced by the difference in character of the shore line and the shoals between the photogrammetric survey in 1950 and the present hydrographic survey.

4. Shoalest depth in this area is apparently 8 feet. 6 foot depths were found .3 miles and 2 foot depths found .5 miles northwest of the area.

5. The wreck (Obstr - ga red day) was located but it has subsequently been removed and should not be shown on the charts.

6, 8. The piles referred to were not found after a careful examination of the area.

7. The pile was located as charted (Vol. 1, p. 35, Pos. ~~1e~~ 2e, skiff)

Misc.

a.) A mass of hard material 2 ~~ft.~~ m. in diameter was located as shown on the preliminary review at Latitude 39°-32.~~34~~36', Longitude 74°-16.~~91~~90', by position 48f, Volume 3, Sheet 1254. (H-8219 (1954))

b.) The pile circled on the preliminary review at Latitude 39°-30.~~90~~87', Longitude 74°-17.~~84~~87' was not verified. Although there was no extensive investigation of the area, the pile is believed to be extinct. Chart as Submerged pile - (par. 6 a Review L.S.S.

c.) Piles shown on chart 826 at Latitude 39°-25.47', Longitude 74°-20.68', and at Latitude 39°-25.94', Longitude 74°-20.31', were not found. Although no extensive investigation was undertaken, the piles are believed to be extinct. The piles further south, however, were verified. See Review of H-8221 also DR

N. DANGERS AND SHOALS:

1.* A 6" steel pipe, awash at MHW was located at Lat. 39°-30.37', Long. 74°-17.48', by pos. 106 c, Volume 1, Sh. 1354. (H-8220)

2. A mound of rocks, 5 meters in diameter, awash at MLW, was located at Lat. 39°-30.53', Long. 74°-19.85', by pos. 106 aa, Volume 12, Sh. 1354. (H-8220)

3.* A 2 foot shoal in fringes on the Intracoastal Waterway channel, near Beach Haven Inlet at Lat. 39°-31.35', Long. 74°-17.55'.

4.* Shoaling action is rapidly closing Beach Haven Inlet. Presently, breakers close off the channel on all but the calmest days.

5. The north channel at Brigantine Inlet has shifted and closed to a controling depth of about 2 feet. H-8221

The south channel is unmarked, has breakers across it almost continuously and has a controling depth of about 6 feet. Strong currents are encountered in the areas deeper than 12 feet. H-8221

DANGERS AND SHOALS (continued):

6. There is a suspended cable across a creek at Lat. 39°-27.70', Long. 74°-19.52'. The vertical clearance at MHW is 10 feet. H-8221 (1954)

7. Investigation and developement of a shoal sounding at Lat. 39°-25.06', Long. 74°-19.33', obtained by the Ship BOWEN, failed to substantiate the sounding. H-8222 (1954) - Sounding considered a stray by R.H.C.

* Note: These three items reported in letter to the Director dated 28 October 1954.

O. COAST PILOT INFORMATION:

A separate report, copy of which is appended, has been submitted to the Director on Coast Pilot changes.

P. AIDS TO NAVIGATION AND LANDMARKS FOR CHARTS:

Separate reports of Floating and Non-Floating Aids to Navigation and Landmarks for Charts are appended to this report. The dm's and dp's were not entered on form 567 because of excessive distortion of the boat sheet.

Q. MISCELLANEOUS:

The new type sounding volumes were used on sheet No. BN-1454 and proved to be most unsatisfactory. The lack of color contrast and transparency of the pages materially increased the difficulties of recording.

Respectfully submitted,

Richard H. Moulder,
Ensign, USC&GS.

Approved and Forwarded,

Harold J. Seaborg,
Commander, USC&GS,
CHIEF OF PARTY.

Seasons Report - H. J. Seaborg 1954 / #132

C O P Y

Ship BOWEN
P.O. Box 898,
Atlantic City, N.J.

28 October 1954

TO: The Director,
U.S. Coast and Geodetic Survey,
Department of Commerce,
Washington 25, D. C.

SUBJECT: Dangerous Shoals and Pipe Obstruction, Report on.

During the recently completed hydrographic survey of Little Egg Inlet, N. J., the following dangerous shoals and pipe obstruction were located as follows:

1. A two (2) foot shoal in the main Intracoastal Waterway channel, just southwest of Holgate,

Latitude 39°- 31' + 653 m.
Longitude 74°- 17' + 778 m.

2. A two (2) foot shoal in the locally maintained channel at Beach Haven Inlet,

Reduces to 4 feet with proper tide reducer applied.
L.S.S.
12/23/58.

Latitude 39°-30' + 1510 m.
Longitude 74°-16' + 578 m.

3. A steel pipe awash at Mean High Water,

Latitude 39°- 30' + 688 m.
Longitude 74°- 17' + 690 m.

Inclosed is sketch showing the location of these three items. Soundings have been reduced to M.L.W. based upon predicted tides.

Harold J. Seaborg,
Commander, USC&GS,
Comdg. Ship BOWEN.

INC.

COAST PILOT REPORT

PROJECT NO. CS - 373 — LITTLE EGG INLET, N. J.

U. S. C. & G. S. Ship B O W E N — H. J. SEABORG, COMMANDING

AUGUST - OCTOBER, 1954

UNITED STATES COAST PILOT 3
ATLANTIC COAST
SANDY HOOK to CAPE HENRY
Supplement dated 27 February 1954

CHART 1216

Page 135 - Line 41; paragraph revised:

LONG BEACH is a rapidly growing resort area consisting of a number of small communities of which BEACH HAVEN is the largest. The standpipe at BEACH HAVEN TERRACE, a stack at SPRAY BEACH, and an elevated water tank at BEACH HAVEN, are prominent landmarks. The BONDS COAST GUARD STATION at HOLGATE, 16 miles from Barnegat Lighthouse, has a tank and lookout tower. Storm warnings are displayed daytime only, at the station.

Page 136 - Line 16; read: The controlling depth over the bar is 6 feet.

CHART 1217

Page 136 - Line 35; read: depth was 9 feet in the entrance channel in August 1954. The Corps of Engineers was dredging this channel in October 1954.

Page 137 - Line 17; read: up to 110 feet in length, 7 feet in draft, and up to 70 tons in weight.

Page 137 - Line 20; read: Basin. At the Kentucky Avenue Lifeguard Station, a mile southwest of the old lighthouse, daytime storm warnings are displayed only through the summer months.

CHART 825

Page 150 - Line 32; read: can haul out boats up to 45 feet in length and 25 tons in weight.

Page 150 - Line 36; Insert new paragraph after:

Considerable improvement and enlargement of dock space and facilities are in progress at the Beach Haven Yacht Club. Just north of this club, a marine railway can accomodate boats up to 42 feet long, 20 tons in weight. A machine and wood shop is located here also.

At BEACH HAVEN HEIGHTS, a marine railway is under construction. Another small marine railway is located at Holgate.

CHART 826

Page 151 - Line 7; read: just east of Mile 42.3,

Page 151 - Line 15; read: leaving Marshelder Channel about 0.5 mile north of Tucker

Page 151 - Line 21; read: , which has a controlling depth of 5 feet.

TIDE NOTE

I. SHEET BN 1253: H-8219(1954)

Tide reducers for the survey of the inland waters were based on recorded tides at the Big Sheepshead Creek portable tide gage station. (Lat. 39°31.4', Long. 74°-17.8') (MLW reading on staff 2.2 ft.)

Tide reducers for the survey along the outer coast were based on recorded tides at the Atlantic City Steel Pier standard tide gage station (Lat. 39°-21.30', Long. 74°-25.10), for which hourly heights were furnished by the Washington Office.

II. SHEET BN-1354: H-8220(1954)

All outer portions of Beach Haven and Little Egg Inlets are based on the standard tide gage at Steel Pier, Atlantic City, N.J.

The west portion of Great Thorofare and that portion of Great Bay west of the line from the Little Egg Coast Guard Station south to the nearest point of land at Little Beach, utilize the tides obtained at the Crab Island portable tide gage station, Lat. 39°-31.1', Long. 74°-20.2'. (MLW reading on staff 2.5 ft.)

All the area east of the line defined for the Crab Island station and west of the junction of the area controlled by the Steel Pier tide gage is controlled by the portable tide gage at Big Sheepshead Creek.

Reference is made to letter from the Assistant Director (36-rjb) dated 15 September 1954, approving the above described zoning.

III. SHEET BN-1454: H-8221(1954)

All outer portions of Brigantine Inlet and along the outer coast are based on tides from Steel Pier, Atlantic City, N. J.

All reducers for sounding from the breaker line inland are based on recorded tides at the Brigantine Channel portable tide gage station. (Lat. 39°-26.6', Long. 74°-~~21.0'~~ 20.8') (MLW reading on staff 0.4 ft.)

IV. SHEET BN-2154: H-8222(1954)

Tide reducers for this survey were based on recorded tides at the Atlantic City Steel Pier standard tide gage station for which hourly heights were furnished by the Washington Office.

* NOTE: See appended sheet for graphical presentation .

APPLIED BAR CHECK CORRECTIONS

PROJECT CS - 373

I. FATHOMETER 157 SPX (Sheets BN - 1254, 1354, 1454):

Date (1954) From	To	Depths (feet) From	To	Correction (feet)
11 August	1 October (except 18 Sept.)	0.0	50.0	0.0
18 September	18 September	0.0	3.0	- 0.4
		3.2	6.2	- 0.2
		6.4	8.6	0.0
		8.8	11.4	+ 0.2
		11.6	14.8	+ 0.4
		15.0	20.4	+ 0.6
		20.6	28.4	+ 0.8
		28.6	36.2	+ 1.0
		36.4	44.4	+ 1.2
		44.6	52.6	+ 1.4

- -

II. FATHOMETER 100 S (Sheets BN - 1254, 1354, 1454):

20 September	28 October	0.0	7.6	0.0
		7.7	13.6	+ 0.2
		13.7	40.0	+ 0.4
		40.1	55.0	+ 0.6

- -

III. FATHOMETER 160 SPX (Sheet BN - 2154):

				"A" Scale
12 August	8 October	0.0	20.0	0.0
		20.1	40.0	+ 0.2
		40.1	60.0	+ 0.4
				"B" Scale
		35.0	40.0	+ 0.4
		40.1	60.0	+ 0.6
		60.1	80.0	+ 0.8

NORFOLK PROCESSING OFFICE
LIST OF SIGNALS
H-8220

TRIANGULATION STATIONS

FISH	SEVEN ISLANDS, FISH FACTORY, WATER TANK, 1950
KIN	SIMKIN, 1935
LET	LETTUCE (C&N), 1935
MAIN	MAIN, 1935

MARKED TOPOGRAPHIC STATIONS

*HAV	HAVEN, 1954 — card 524 Lost.
*TINE	TINE, 1954 Filed (carbon copy)

L.S.S. 3/31/58

TOPOGRAPHIC STATIONS

SOURCE T-9501S (1950-52)

Abe	Bag	Big	Cam	Cup	Daw	Dud	Ear	End	Fat
Gag	Hem	Ice	Jap	Ked	Key	Lam	Las	Leo	Mag
New	Oto	Pol	She	Tow	Woo				

SOURCE T-9504N (1950-52)

Bar	Dot	Hak	Nap	Oak	Pad	Rig

SOURCE T-9505N (1950-52)

Cat	Chi	Eva	Fig	Ink	Off	Sam	Tel	Tom	Top
Use	Val	Vex	Wad	Zoo					

HYDROGRAPHIC STATIONS

Ant	Vol. 5, pg. 23, H-8219
Nat	" 15, pg. 60
Pot	" 1, pg. 25
Ski	" 1, pg. 26
Tea	" 1, pg. 22
Tan	" 5, pg. 23, H-8219

* For triangulation Data Computations - Filed in Library - S. BOWEN

STATISTICS FOR HYDRO SURVEY H - 8220
(FIELD) BN - 1354
USC&GS Ship B O W E N
CS - 373

LAUNCH CS - 175

Date 1954	Day Letter	Volume Number	Number of Positions	Detached Positions	Statute Miles of Sounding
Aug. 11	a	1	16	15	0.0
12	b	1	0	32	0.0
13	c	1	162	23	15.5
14	d	2	179	0	25.2
15	e	2	35	0	4.4
17	f	2 & 3	147	0	20.2
18	g	3 & 4	269	0	42.3
19	h	4	49	3	7.0
24	j	4 & 5	137	0	16.0
25	k	5	52	0	6.4
26	l	5	113	0	15.1
27	m	6	113	0	15.9
28	n	6	154	0	15.4
30	p	7	186	0	27.5
Sept. 1	q	7 & 8	126	0	20.3
8	r	8	32	4	3.5
9	s	8 & 9	190	0	23.6
15	t	9	112	0	18.9
16	u	9 & 10	125	0	20.3
18	v	10	145	0	23.5
20	w	10	70	0	13.5
22	x	11	110	0	13.9
23	y	11 & 12	120	0	18.2
28	z	12	33	0	5.9
29	aa	12	106	0	17.3
30	ba	12	26	0	3.3
Oct. 1	ca	12	38	0	8.1
2	da	13	65	0	9.4
6	ea	13	130	0	14.9
7	fa	13	23	0	3.9
11	ga	14	109	0	13.7
12	ha	14 & 15	210	4	22.3
13	ja	15	160	0	21.6
19	ka	15	44	1	4.8
21	la	16	138	0	16.8
23	ma	16	79	2	9.6
27	na	17	32	4	3.5
28	pa	17	4	0	0.3
Totals (LAUNCH CS-175)			3,839	88	522.0

Aluminum Skiff

Sept. 16	a	1	57	57	0.0
18	b	1	53	53	0.0
20	c	1	15	15	0.0
21	d	1	32	32	0.0
Oct. 22	e	1	4	4	0.0
12	f	1	43	43	0.0
25	g	1	23	23	0.0
Totals (Aluminum Skiff)			227	227	0.0
TOTALS FOR SHEET BN - 1354			4,066	315	522.0

NORFOLK PROCESSING OFFICE
FLOATING AIDS TO NAVIGATION
H-8220

BUOY	LATITUDE	LONGITUDE	DEPTH	POS. NO.	DATE
BEACH HAVEN INLET	0.7	0			
Lighted Bell Buoy	39-31.26	74-15.37	28'	16a	8/11/54
Lighted Bell Buoy	39-30.81	74-15.30	23'	33z	9/28/54
Buoy A	39-30.21	74-16.31	8'	15a	8/11/54
Buoy B	39-30.73	74-15.56	5'	14a	"
Buoy C	39-30.64	74-17.03	14'	13a	"
Buoy D	39-30.81	74-17.29	28'	12a	"
Buoy E	39-31.10	74-17.39	17'	11a	"
Buoy F	39-31.37	74-17.40	5'	10a	"
LITTLE EGG HARBOR					
Buoy 69A	39-31.56	74-17.32	14'	9a	"
Buoy 67A	39-31.75	74-16.88	15'	7a	"
Buoy 66B	39-31.83	74-16.79	12'	3a	"
Buoy 71	39-31.59	74-17.28	13'	21b	8/12/54
Buoy 72A	39-30.51	74-18.25	11'	18b	"
Buoy 73	39-30.81	74-17.99	10'	17b	"
Buoy 70A	39-31.15	74-17.76	11'	20b	"
Buoy 65A	39-32.11	74-16.16	5'	5a	8/11/54
Buoy 66A	39-32.09	74-16.40	18'	4a	"
Buoy 68	39-31.68	74-17.15	10'	2a	"
Junction Buoy	39-30.38	74-18.49	10'	6b	8/12/54
GREAT BAY					
Buoy 75	39-30.31	74-19.55	19'	5b	8/12/54
Buoy 77	39-30.41	74-20.31	7'	1d	9/21/54
Buoy 78A	39-30.40	74-20.79	11'	3d	"
Buoy 81A	39-30.33	74-21.18	11'	4d	"
Buoy 80A	39-30.27	74-21.45	12'	6d	"
Buoy 81B	39-30.12	74-21.70	7'	8d	"
Buoy 80B	39-30.00	74-22.29	6'	10d	"
Buoy 83A	39-29.89	74-22.88	8'	11d	"
Buoy 85	39-29.42	74-22.94	5'	13d	"
Buoy 86A	39-29.08	74-22.56	3'	15d	"
Buoy 85A	39-29.03	74-22.49	11'	16d	"
LITTLE EGG INLET					
Buoy G	39-30.10	74-18.28	30'	8b	8/12/54
Lighted Buoy F	39-29.72	74-18.~~95~~ 25	14'	9b	"
Buoy E	39-29.42	74-17.98	13'	10b	"
Buoy D	39-29.22	74-17.74	17'	11b	"
Buoy C	39-28.97	74-17.49	16'	12b	"
Buoy A Buoy	39-28.61	74-16.69	16'	48h	8/19/54
Outer Ltd. Bell/LE	39-28.10	74-15.82	35'	47h	"
Buoy B	39-28.85	74-17.04	8'	49h	"
PRIVATELY MAINTAINED BUOYS					
Barrell	39-30.60	74-20.21	13'	74s	
Drum	39-29.80	74-17.55	6'	83d	
Drum	39-30.78	74-21.50	4'	67u	

NORFOLK PROCESSING OFFICE
FIXED AIDS TO NAVIGATION
H-8220

FIXED AID	LATITUDE	LONGITUDE	DEPTH	POS.	DATE
LITTLE EGG HBR. CHANNEL					
Light 66	39-32 74M	74-16 785M	9'	6a red	8/11/54
Light 69	39-31 947M	74-17 296M	8'	8a "	"
Light 70	39-31 343M	74-17 1081M	9'	19b "	8/12/54
Light 72	39-30 ~~1731M~~	74-17 ~~1424M~~	7'	18b "	"
GREAT BAY-ABSECON INLET					
Light 73	39-30 546M	74-18 ~~1810M~~ 381	6'	7b red	8/12/54
Light 76	39-30 813M	74-19 854M	11'	4b "	"
Light 78	39-30 ~~870M~~ 822	74-20 ~~464M~~ 433	7'	2d "	9/21/54
Light 78A	39-30 ~~538M~~ 557	74-21 566M 588	7'	T-9501 5d green	1950
Light 80	39-30 ~~174M~~ 179	74-21 956M 988	9'	T-9501 7d "	" "
Light 81	39-30 ~~0M~~ 7M	74-22 ~~412M~~ 411	7'	T-9504 9d "	" "
Light 82	39-29 ~~1695M~~ 1678	74-22 ~~1290M~~ 1278	6'	T-9504 12d "	" "
Light 84	39-29 ~~759M~~ 752	74-22 ~~1371M~~ 1358	5'	T-9504 14d "	" "
Light 87	39-29 ~~55M~~ 54	74-22 ~~671M~~ 664	8'	T-9505 17d "	" "
UNLISTED LIGHTS-VICINITY NEWMANS THOROFARE					
Light 1	39-32 ~~422M~~ 420	74-20 ~~1418M~~ 1397	3'	T-9501 Photo Plot ~~4c~~	1950 9/22/54
Light 2	39-31 417M	74-19 420M	0'	3e	"
Light 3	39-30 1281M	74-20 368M	8'	2e	"
Light 2	39-30 1100M	74-20 211M	8'	1e	"

Shown with pile symbol { H-688(53) Bp 50410

For condition of Aids to Navigation
See par. 6 B Renew

L. S. S.
12/31/58

NORFOLK PROCESSING OFFICE
ADDENDUM

HYDROGRAPHIC SURVEY H-8220 (Field No. Bn-1354)

GENERAL

This appears to be an excellent basic survey and no unusual conditions were encountered during the smooth plot.

SHORELINE

Extensive changes have occurred in the HWL along the outer coast. These changes, shown in red on the smooth sheet, were obtained by plotting recorded sextant fixes on this, and adjoining smooth sheets.

SOUNDINGS

Soundings checked very well at crossings considering the many minor irregularities in the bottom. Areas of sand waves were noted in the inlet. Changes in depths are so extensive that chart comparisons are of little value.

Norfolk, Va.
14 Jan. 1958

Respectfully submitted,

Hugh L. Proffitt

Hugh L. Proffitt
Cartographer

GEOGRAPHIC NAMES

Survey No. H-8220

Name on Survey	On Chart No. A	On previous survey No. B	On U. S. quadrangle Maps C	From local information D	On local Maps E	P. O. Guide or Map F	Rand McNally Atlas G	U. S. Light List H	K	
New Jersey										1
Little Egg Inlet			apply name after inking						BGN	2
Little Beach										3
Great Thorofare										4
Simkins Thorofare										5
Main Marsh Thorofare										6
Great Bay										7
Fish Island										8
Seven Islands										9
Newmans Thorofare										10
Shooting Thorofare										11
Little Sheepshead Creek										12
Big Sheepshead Creek										13
Little Thorofare										14
Marshelder Channel									BGN	15
Tucker Island										16
Beachhaven Inlet			apply name after inking							17
Holgate										18
Foxboro Point			Names approved 1-31-58							19
Egg Island			Anny additional names desired may be taken from current edition of chart 826. L. Heck							20
										21
										22
										23
										24
										25
										26
										27

M 234

RHC

Form 712
(11-30-55)

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

TIDE NOTE FOR HYDROGRAPHIC SHEET

4 March 1958

Chart Division: R. H. Carstens

Plane of reference approved in
18 volumes of sounding records for

HYDROGRAPHIC SHEET 8220

Locality Little Egg Inlet, N.J.

Chief of Party: H. J. Seaborg

Plane of reference is mean low water, reading

4.3 ft. on tide staff at of 1922 at Atlantic City

12.1 ft. below B.M. 34 (1922)

2.5 ft. on tide staff at Crab Island
8.1 ft. below B.M. 4 (1946)

2.2 ft. on tide staff at Big Sheepshead Creek Entrance
6.6 ft. below B.M. 1 (1954)

Height of mean high water above plane of reference is:

Atlantic City	4.1 ft.
Crab Island	3.4 ft.
Big Sheepshead Cr. Ent.	3.1 ft.

Condition of records satisfactory except as noted below:

NOTE: Tide reducers for the positions listed below have been revised in red and verified.

Vol.	Positions
10	1W - ~~7W~~ 70 W ✓
11	63Y - 98Y ✓
12	99Y - 120Y ✓

William Shofnos
Signature

Chief, Tides Branch

Comm-DC 34330

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. ..8220..

Records accompanying survey:

Boat sheets ..1..; sounding vols. ..18.; wire drag vols. .....;

bomb vols. .....; graphic recorder rolls .14-Envelopes

special reports, etc. .1-Smooth sheet. 1-Descriptive report.....

.1.Cahier-Computation Data...

Black line prints T-9502 N&S, T-9501 N&S T-9505 N&S, T-9504 N and tracings of shoreline changes are with boat sheet H-8220

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

Number of positions on sheet		4066
Number of positions checked		530
Number of positions revised		5
Number of soundings revised (refers to depth only)		18
Number of soundings erroneously spaced		34
Number of signals erroneously plotted or transferred		0
Topographic details	Time	8
Junctions	Time	8
Verification of soundings from graphic record	Time	4

Verification by J. C. Chambers / " " L S Straw .....Total time .264 / 24. Date 11/20/58

Reviewed by .... Time ..72.. Date 12/31/58

M-2232-1

DRE

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. 8220 FIELD NO. BN-1354

New Jersey, Little Egg Inlet

Surveyed: August-October 1954 Scale 1:10,000

Project No. CS-373

Soundings:

808 Depth Recorder
Sounding Pole

Control:

Sextant fixes on shore signals

Chief of Party - H. J. Seaborg
Surveyed by - J. R. Plaggmier, R. H. Houlder
Protracted by - W. L. Jonns
Soundings plotted by - W. L. Jonns
Verified and inked by - J. C. Chambers
Reviewed by - L. S. Straw Date December 31, 1958
Inspected by - R. H. Carstens

1. Shoreline and Control

The shoreline originates with T-9501 S (1950-52), T-9504 N (1950-52), and T-9505N(1950-52) and with subsequent revisions by the hydrographer shown in red on the smooth sheet.

The source of the control is given in the Descriptive Report.

2. Sounding Line Crossings

The depths at sounding line crossings are in good agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves including the 3-foot curve where appropriate, were adequately delineated. A generally smooth bottom exists along the outside coast from the 18-foot curve seaward. However, in Beachhaven Inlet, Little Egg Inlet and the adjoining thorofares, the bottom is uneven and shifts constantly.

4. Junctions with Contemporary Surveys

The junctions with H-8219 (1954) on the north, H-8222 (1954) on the east, and H-8221 (1954) on the south are adequate.

According to the Project Instructions the present survey was to be extended far enough inland to obtain a satisfactory junction with the 1935-37 surveys, and where necessary small additional areas were to be included beyond the project limits so that a better junction could be achieved. The bottom at the junction with H-5893 (1935) has shoaled generally about 1 foot, except for the area west and northwest of Seven Islands where in the vicinity of lat. 39° 31.00', long. 74° 21.9' the present depths are 3 feet shoaler than those on the 1935 survey. A few more additional lines should have been run to adequately develop the extent of the 3-foot curve in this area. Soundings from H-5893 (1935) were, therefore, not transferred to the present survey. A butt junction was made with H-6216 (1935-36) in Little Thorofare on the north.

5. Comparison with Prior Surveys

a.

H-101 (1844)	H-113 (1847)	H-1158b (1874)
H-109 (1840)	H-116 (1843)	H-1165 (1872)
H-110 (1840)	H-670 (1859)	H-1196 (1873)
H-111 (1841)	H-1125 (1871)	H-2657 (1903)
H-112 (1841)	H-1158a (1872)	H-4387 (1924)

These prior surveys have been compared with and are superseded by the 1935-36 surveys which are discussed in the following paragraph. Further consideration of the earlier surveys is considered unnecessary in the present review.

b. H-5893 (1935), H-6144 (1936), H-6145 (1935-36), H-6195 (1936), H-6216 (1935-36), and Field Examination No. 3 (1951)

Erratic changes in shoreline and bottom have taken place in this area since the 1935-36 surveys were made. Changes in depths from 2 to 4 feet over large flat areas as well as differences in depths from 10 to 40 feet where new channels have developed or old ones filled in are not uncommon. Off the outer coast the depths are generally 3 to 4 feet deeper from the 12-foot curve shoreward except for greater differences in the new channel which extends from Shooting Thorofare, deviating from the old one at lat. 39° 29.80', long. 74° 18.20' and continuing southeastward. The result has been the formation of additional shoal areas in the vicinity of lat. 39° 28.75', long. 74° 17.00' with depths 3 to 13 feet shoaler than on the 1935-36 surveys and the 12-foot curve shifting 1/3 to 1/2 mile farther seaward. The new channel entrance into Little Egg Inlet is about 1 mile northeast of the previous location.

Six lines of soundings in approximate lat. 39° 28.6', long. 74° 16.9' are 3 to 6 feet shoaler than the depths on the present survey. A comparison of depths in this vicinity indicates that considerable change has taken place from 1951 to 1954, the date of the present survey; therefore these soundings are superseded by the present work.

The present survey shows the entrance channel to Beachhaven Inlet located about 1/2 mile south of where two channels merged at the entrance of the inlet in 1935. In this connection it is noted that the island at Long Beach has accreted 8/10 of a mile southwestward.

Tucker Island in lat. 39° 30.95', long. 74° 17.54' bears no resemblance to a much larger island by the same name 1/4 mile southeast on H-5893 (1935). The present survey shows no island here but general depths of 2 to 4 feet with a 1-foot spot in lat. 39° 30.27', long. 74° 17.68'.

The island in lat. 39° 29.95', long. 74° 18.73' on H-5893 (1935) has washed away; 2- to 3-foot shoals are located in this vicinity by the present work.

The extensive shoreline and bottom changes from the entrance of Little Egg Inlet to and including Seven Islands are attributed to the low marshy shoreline and sand bottom subjected to current and tidal action which are augmented occasionally by severe coastal storms.

The present survey supersedes these prior surveys in this changeable area.

6. Comparison with Chart 826 (latest print dated 6/16/58)

A. Hydrography

The charted information originates with the present survey applied before verification and review. Only minor differences of 1 foot between the charted depths and the present survey depths are noted.

The pile charted in lat. 39° 30.87', long. 74° 17.84' falling in depths of 7 feet on the present survey was not verified by the hydrographer; it is carried forward as a submerged pile from T-9501 S (1952).

The piles in lat. 39° 30.20', long. 74° 18.22' and lat. 39° 30.5', long. 74° 17.91' were searched for by the hydrographer (item L of Descriptive Report) and not found. They are considered to be nonexistent.

The "fishhook" shaped island in lat. 39° 29.30', long. 74° 22.30' charted since 1946 no longer exists; only a low water shoal remains.

The hydrographer states in the Descriptive Report, item L, that the wreck (shown as an obstruction on the smooth sheet) in lat. 39° 32.12', long. 74° 16.14' was located but was subsequently removed. The wreck should be expunged from the chart.

The name Beachhaven Inlet if placed farther southwestward on the chart would more properly indicate the entrance.

B. Aids to Navigation

The floating and fixed aids to navigation were renumbered as reported in H. O. Notice to Mariners No. 30, 1955 (July 13, 1955) subsequent to the present survey. Since the date of the present work (1954) several aids have been discontinued and do not exist. All others are in substantial agreement with the charted positions and adequately mark the features intended, except the fixed light at the east end of Fish Island in lat. 39° 30.47', long. 74° 20.34' which is located 65 meters east of the charted position in 6 feet of water.

7. Condition of Survey

a. The sounding records and Descriptive Report are complete and comprehensive.

b. The smooth plotting was accurately done.

c. The area is extremely changeable and necessitated extensive revisions of the shoreline by the hydrographer which is shown in red on the smooth sheet.

8. Compliance with Project Instructions

The survey adequately complies with the Project Instructions except as noted in paragraph 4 of this Review.

9. Additional Field Work

The survey is considered basic, and no additional work is recommended.

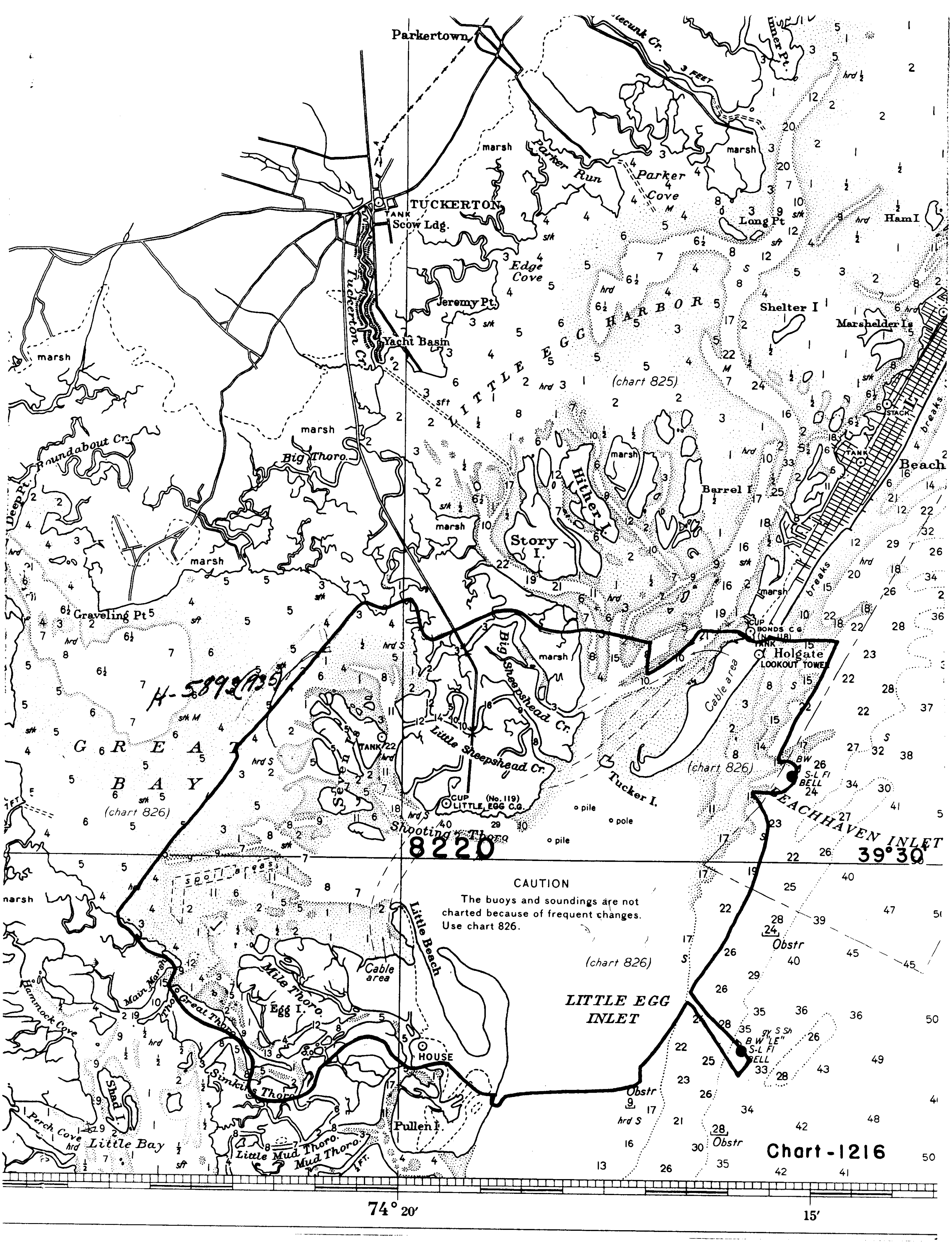
Examined and approved:

Max G. Ricketts
Chief, Nautical Chart Branch

Ernest B. Lewey
Chief, Division of Charts

Lorin F. Woodcock
Chief, Hydrography Branch

Samuel B. Grenell
Chief, Division of Coastal Surveys



Parkertown
TUCKERTON
TANK
Scow Ldg.
Tuckerton Cr.
Yacht Basin
Jeremy Pt.
Edge Cove
Parker Run
Parker Cove
Long Pt
Ham I
Shelter I
Marshelder Is
LITTLE EGG HARBOR
(chart 825)
Roundabout Cr.
Deep Pt.
Big Thoro.
Hither I.
Barrel I
Story I.
Graveling Pt
H-5893 (1935)
GREAT BAY
(chart 826)
Big Sheepshead Cr.
Little Sheepshead Cr.
Seven
TANK
CUP LITTLE EGG C.G. (No. 119)
Shooting Thoro
CUP BONDS C.G. (No. 118)
TANK
Holgate
LOOKOUT TOWER
STACK
Beach
breaks
Cable area
Tucker I.
(chart 826)
BW
S-L Fl BELL
BEACHHAVEN INLET
8220
39°30′
spoil areas
CAUTION
The buoys and soundings are not charted because of frequent changes. Use chart 826.
(chart 826)
Little Beach
Cable area
LITTLE EGG INLET
Mile Thoro
Egg I.
HOUSE
Main Marsh
Great Thoro
Hammock Cove
Simkins Thoro
Shad I.
Perch Cove
Little Bay
Pullen I.
Little Mud Thoro.
Mud Thoro.
Obstr
B W "LE"
S-L Fl BELL
Chart-1216
74° 20′
15′
marsh

NAUTICAL CHARTS BRANCH

SURVEY NO. H 8220

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
1/27/58	826	S.A. McGann	Before ~~After~~ Verification and Review Completely applied
5/20/58	1217	S.A.M.	Before ~~After~~ Verification and Review Completely applied.
5/22/58	1216	S.A.M.	Before ~~After~~ Verification and Review Completely applied.
1-14-59	826	R.K. DeLaunder	~~Before~~ After Verification and Review " " " J.M.A.
1-30-59	1216	J.M.A.	~~Before~~ After Verification and Review Completely via 826
2-3-59	1217	J.M.A.	~~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.