

FE170

FE170

Diagram No. 369-5

NOAA FORM 76-35A

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

DESCRIPTIVE REPORT (HYDROGRAPHIC)

Type of Survey ... Field Examination.....
Field No. 4-59
Office No. FE-170

LOCALITY

State New York
General Locality .. New York Harbor-East River
Locality East of Blackwell's Island

19 59

CHIEF OF PARTY
R.M. Stone

LIBRARY & ARCHIVES

DATE July 13, 1959

☆ U.S. GOV. PRINTING OFFICE: 1976-669-441

NOTE: A new system for registering Field Examinations (FE's) was established in 1980. All FE's are now consecutively numbered as shown hereon. The date shown in the new format is the actual date of survey. This material was previously registered as;

FE No.4 1959

F E No. 4
1959

ORIGINAL

HWB

FE-170
4

Diag. Cnt. No. 369-5.

Form 504 U. S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY	
DESCRIPTIVE REPORT	
Type of Survey	HYDROGRAPHIC
Special Project	
Field No.	4-59
Office No.	F.E.No.4. (1959)
LOCALITY	
State	New York
General locality	New York Harbor- East River
Locality	East of Blackwell's Island
1959	
CHIEF OF PARTY	
Raymond M. Stone	
LIBRARY & ARCHIVES	
DATE	JUL 13 1959

COMM-DC 61300

F E No. 4
1959

DEPARTMENT OF COMMERCE
U.S. COAST & GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

Register No. _____

Field No. Special Project 4-59,
Ship MARMER

State NEW YORK

General Locality New York Harbor- East River

Locality East of Blackwell's Island

Scale 1:5,000 Date of Survey 25 May 1959

Instructions dated 20 February 1959

Vessel Ship MARMER, Launch No. "82"

Chief of Party Raymond M. Stone

Surveyed by Dale E. Westbrook, David I. Wolsk

Soundings taken by Fathometer, & Hand Lead

Fathograms scaled by J.E. Thompson

Fathograms checked by D.E. Westbrook

Protracted by D.E. Westbrook

Soundings penciled by D.E. Westbrook

Soundings in Feet at MLW

Remarks This survey constitutes a special investigation of
a reported 13 ft. shoal. Three-point sextant fixes were used
to control the survey.

DESCRIPTIVE REPORT
TO ACCOMPANY
SPECIAL PROJECT 4-59

SPECIAL PROJECT 4-59

SCALE 1:5,000

RAYMOND M. STONE, CHIEF OF PARTY

USC & GS SHIP MARMER

DALE E. WESTROOK, IN IMMEDIATE

CHARGE OF FIELD WORK

A. PROJECT

Hydrography on this project was done under INSTRUCTIONS-SPECIAL SURVEY 4-59, EAST RIVER, NEW YORK dated 20 February 1959. ✓

The survey was instituted by a letter from attorneys Burlingham, Hupper, & Kennedy who were representing the Tug MICHAEL MORAN in the grounding of the tank barge HYGRADE NO. 6 on a reported 13 ft. sounding under the 59th street bridge.

B. SURVEY LIMITS AND DATES

Since the instructions were to investigate a reported 13 foot shoal under the 59th street bridge, (Queensboro Bridge), the survey was limited to the immediate area under the bridge. The hydrography was done on 25 May 1959. ✓

Junction was made with Hydrographic Survey H-1658, 1885, Scale 1:2,500. ✓

C. VESSEL AND EQUIPMENT

Hydrography was done with Launch CS-82 using visual control and sextant fixes. The launch operated from the Ship MARMER which was undergoing repairs to the main engine at Caddell Shipyard on Staten Island, N.Y. on 25 May 1959. ✓

Echo sounder used was the Bludworth, Model ES-130, No. 57-203. ✓ Soundings were in feet. A standard handlead was used for detached soundings on the shoal in conjunction with the fathometer.

D. TIDE AND CURRENT STATIONS

Tide reducers were entered from data sent from the Washington Office based on the Standard Tide Gage at the Battery, N.Y.C. ✓

E. SMOOTH SHEET

The smooth sheet was plotted on Air Photo Compilation No. T-5458(1934-35), Scale 1:5,000, New York, East River, Wards I. to Blackwell's I. The Air Photo Compilation was also used as a boat sheet. ✓

Control for hydrographic signals was taken directly from the Air Photo Compilation except that because of a lack of identifiable

filed with sounding records

control, the center object KEY was the keystone of the arch of the southeast suspension tower of the Queensboro Bridge. This object was simply pricked by eye on the Air Photo Compilation. (Hydro station) ✓

F. CONTROL STATIONS

Only three objects were used to control the entire investigation. The center object has been described above. The left object, Sta, was an intersection station, S.E. Brick Stack 100 ft., and was taken from the Air Photo Compilation. The right object, MAC, was a triangulation station, L.I. City, Atlantic Macaroni Co., Roof Tank, 1932, and was also taken directly from the Air Photo Compilation. ✓

G. Shoreline and topography

The shoreline and topography were taken directly from the Air Photo Compilation, no corrections noted. T-5458(1934-35). ✓

The low water line was not delineated by soundings since the sole purpose of this project was to investigate a reported shoal. ✓

H. SOUNDINGS

Depths were measured with a Bludworth fathometer, Model ES-130, N. 57-203, and a standard handlead calibrated in feet. Other than the usual Bar Check Corrections to the fathometer soundings there were no unusual corrections applied to the recorded depths. ✓

I. CONTROL OF HYDROGRAPHY

The hydrography was controlled by three-point sextant fixes. ✓

J. ADEQUACY OF SURVEY

Within the area bounded by the investigation, this survey is complete and adequate to supersede prior surveys for charting. ✓

There are no adjoining surveys.

K. CROSSLINES

Approximately 25% crosslines were run as part of the development of the shoal. Crossings were adequate. ✓

L. COMPARISON WITH PRIOR SURVEYS

This survey compares favorably with the USC&GS survey of 1885, H-1658, Scale 1:2,500. ~~The least depth on the shoal as found in 1885 was 13 1/2 feet at MLW and the least depth on the shoal as found by this survey was 13.4 feet. Agreement in position of the least depth was also found to be very good.~~ The shoal, however, was not found to be directly beneath the bridge as reported, but about 100 feet southwest of the centerline of the bridge. ✓

13' from present survey is 37 m. WSW of 13 1/2' from H-1658 RMC and is a new shoal.

See also Review

M. COMPARISON WITH CHART

Upon comparing this survey with Chart No. 745, it was found that

the depths were generally in agreement. However, the 13 foot sounding on the chart is plotted directly under the bridge. For accuracy's sake, it is suggested that that sounding be retained but it should be shifted in position about 100 feet to the Southwest, to the position as shown on the Smooth Sheet.

See also Review

N. DANGERS AND SHOALS

<u>Position of shoal</u>		<u>Least Depth</u>	<u>Position No.</u>
<u>Latitude</u>	<u>Longitude</u>	<u>@ MLW</u>	
40° 45' 20" ✓	73° 57' 10" ✓	13.4 feet ✓	59a, 64a ✓

The amount of time spent covering this shoal and sounding it out is fully described in the sounding record. It is believed that the time spent was more than adequate to satisfy the hydrographer that no shoaler sounding exists at the above shoal. (*... 1^h 16^m was spent in cruising around and over shoal....*) ✓

O. COAST PILOT INFORMATION

None

P. AIDS TO NAVIGATION

None

Q. LANDMARKS FOR CHARTS

None

R. GEOGRAPHIC NAMES

None

U. VELOCITY CORRECTIONS

See next page for derivation of corrections from Bar Checks.

Z. TABULATION OF APPLICABLE DATA

- 1 each----- Form 275----- SOUNDINGS, 25 May 1959, Pos. 1a thru 64a.
- 1 each----- FATHOGRAM-----25 May 1959, Pos. 1a thru 64a.
- 1 each----- SMOOTH SHEET--- on Air Photo Compilation print T-5458.
- 1 each----- Photostat----- Hydrographic Survey H-1658, 1885

Approved and Forwarded:

Raymond M. Stone
Raymond M. Stone
LCDR., USC&GS
Commanding Officer
Ship MARMER

Respectfully Submitted:

Dale E. Westbrook
Dale E. Westbrook
LT., USC&GS

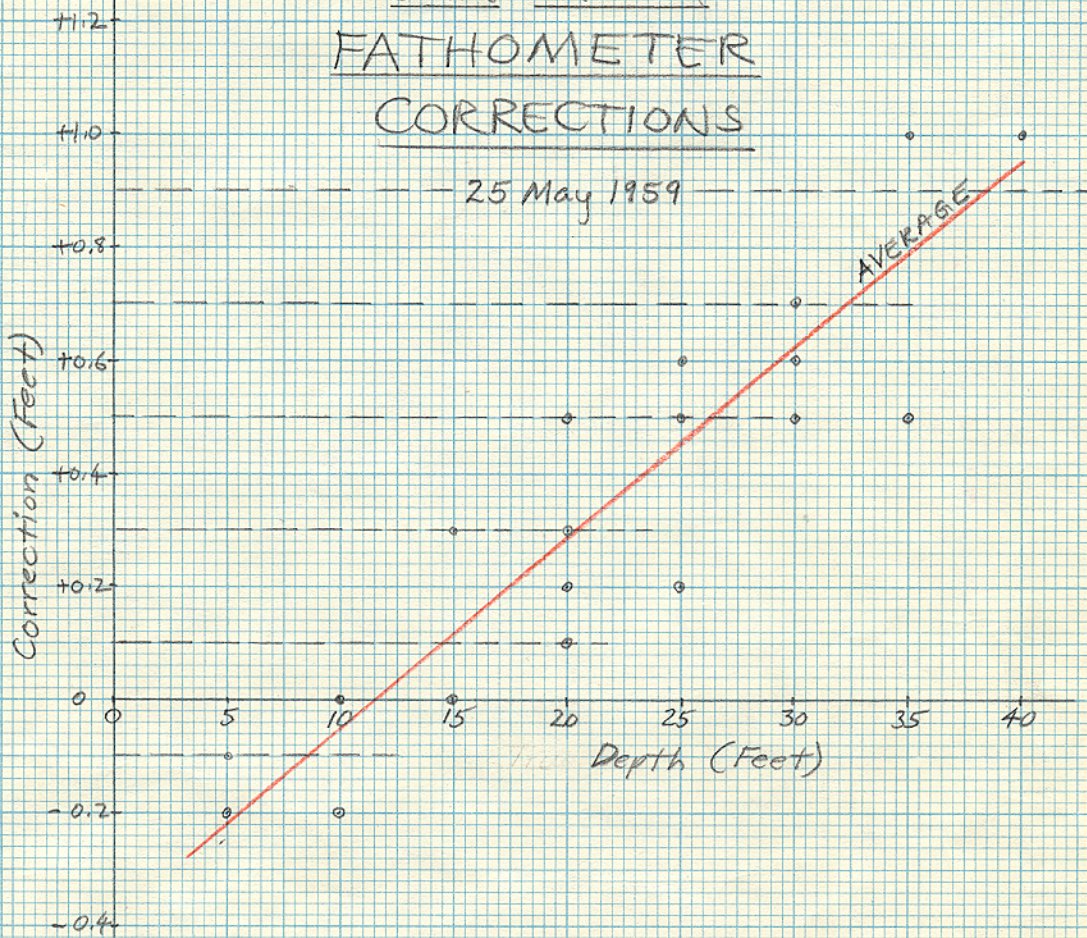
Station:

SPECIAL PROJECT 4-59 Ship MARMER

0 1 2 3 4 5 6 7 8 9 10 11 12 noon 13 14 15 16 17 18 19 20 21 22 23 24

BAR CHECK FATHOMETER CORRECTIONS

25 May 1959



Corrections to be Applied

<u>Feet</u>	<u>Corr.</u>
8.5 - 14.5	0.0 ✓
14.6 - 20.5	+0.2 ✓
20.6 - 26.5	+0.4 ✓
26.6 - 32.0	+0.6 ✓
32.1 - 38.5	+0.8 ✓

Computed by: *Blw*
✓ by: *PM*

STATISTICS

FOR SPECIAL PROJECT 4-59

<u>DATE</u>	<u>VOL. NO.</u>	<u>DAY LETTER</u>	<u>HANDLEAD SOUNDINGS</u>	<u>NO. of POSITIONS</u>	<u>STATUTE MILES OF SOUNDING</u>
5/25/59	I	a	8	64	3.0

Number of Square Statute Miles of Sounding 0.01

T I D E N O T E

Tide reducers were obtained from data sent by the Washington Office. The reducers were based on data collected by the standard tide gage at the Battery, N.Y.C.

The following data on hourly heights were obtained from the Washington Office in a letter dated 16 June 1959, Ref. 36-213-982m.

May 25, 1959

<u>(EST) Hour</u>	<u>Height (Above MLW)</u>
700	-0.2 feet
800	1.3 "
900	2.7 "
1000	3.9 "
1100	4.6 "
1200	4.8 "
1300	4.3 "
1400	3.0 "
1500	1.6 "
1600	0.6 "
1700	-0.1 "

A P P R O V A L S H E E T

LCDR. Raymond M. Stone supervised the field work accomplished on this survey. The survey is considered adequate and complete and no additional field work is necessary.

The Hydrographic Sheet (^{Field No.}T-5458), sounding volume, and fathogram have been inspected and are being forwarded to the Washington Office.



Raymond M. Stone
LCDR., USC&GS
Commanding Officer
Ship MARMER

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Coastal Survey~~

Division of Charts: R. H. Carstens

Plane of reference approved in
1 volumes of sounding records for

HYDROGRAPHIC SHEET F.E. NO. 4 1959

Locality Blackwells Island, New York

Chief of Party: R.M. Stone in 1959
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 $4\frac{1}{2}$ feet.

Condition of records satisfactory except as noted below:



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

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. F.E.No.4-1959

Records accompanying survey:

Boat sheets; sounding vols. 1...; wire drag vols.;
 bomb vols.; graphic recorder rolls 1-Envelope.....
 special reports, etc. 1-Hydrographic Sheet (Smooth Plot) on.....
Air Photo Compilation T-5458 and 1-Descriptive Report......

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

Number of positions on sheet	.....	64
Number of positions checked	.....	6
Number of positions revised	.....	0
Number of soundings revised (refers to depth only)	.....	3
Number of soundings erroneously spaced	.....	—
Number of signals erroneously plotted or transferred	.....	—
Topographic details	Time	—
Junctions	Time	—
Verification of soundings from graphic record	Time	15min

Plotted by * DEW
 Verification by E. Thomas..... Total time 3 hrs* Date 8/19/59
 Reviewed by [Signature]..... Time 5..... Date 8/20/59

* Positions were spot-check and majority transferred onto tracing cloth Smooth Sheet by Verifier. Only critical positions and positions designating ends of stg lines are labeled.
 ET.

REVIEW OF FIELD EXAMINATION NO. 4, 1959

EAST RIVER, N. Y.

Ship MARMER

1. This field examination was made to investigate a reported grounding (CL 1129, 1958) under the Queensboro Bridge, in accordance with instructions for Special Survey 4-59, dated 20 February 1959.
2. The hydrography is shown on tracing cloth attached to the Descriptive Report.
3. The following results were obtained:
 - (1) A detached shoal, described as a rounded pinnacle covering an area of about 5 meters, least depth 13.4-ft. was found in lat. $40^{\circ}45'20''$ long. $73^{\circ}57'10''$. The shoal is about 22 m. SW of the SW'ly side of the bridge, and about 40 m. WSW of a detached $13\frac{1}{2}$ -ft. sounding on H-1658 (1885).
 - (2) Directly under the bridge 13-ft. depths were found to extend out to a point in lat. $40^{\circ}45'20''$, long. $73^{\circ}57'08''$ in the vicinity of the $13\frac{1}{2}$ -ft. sounding on H-1658.
4. The detached shoal of Par. 3 (1) is currently being applied as a hand correction on Chart 745 (print of 1/12/59).
5. Hydrography of this examination should supersede charted hydrography within the area surveyed.
6. The field records and Descriptive Report are comprehensive and complete.
7. This field examination is adequate for the purpose intended and fully complies with the instructions.

Verified by: E. E. Thomas 8/19/59

Reviewed by: L. V. Evans III 8/20/59

Inspected by: R. H. Carstens 8/24/59

○ STA (SE. stack)

73° 57' 40° 45' 30"

Shoal - rounded pinnacle
5 meters in diameter
(pos. 59, 64 - Vol. 1, P. 12)

ISLAND

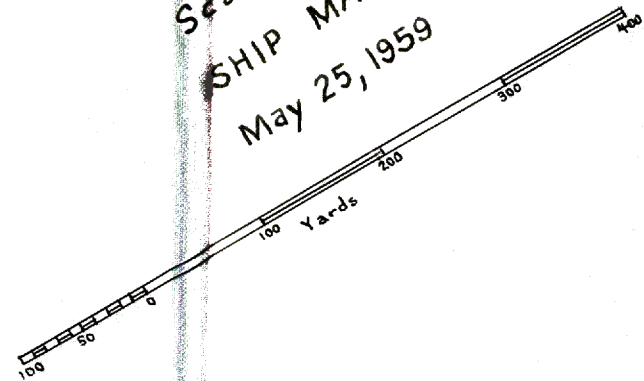
LONG ISLAND
CITY

Key (keystone of bridge arch)

FIELD EXAMINATION No. 4 (1959)
Scale 1: 5,000
SHIP MARMER
May 25, 1959

BLACKWELLS

EAST
CHANNEL



△ L.I. CITY ATLANTIC
MACARONI CO., ROOF TANK, 1932

40° 45'

73° 57' 30"

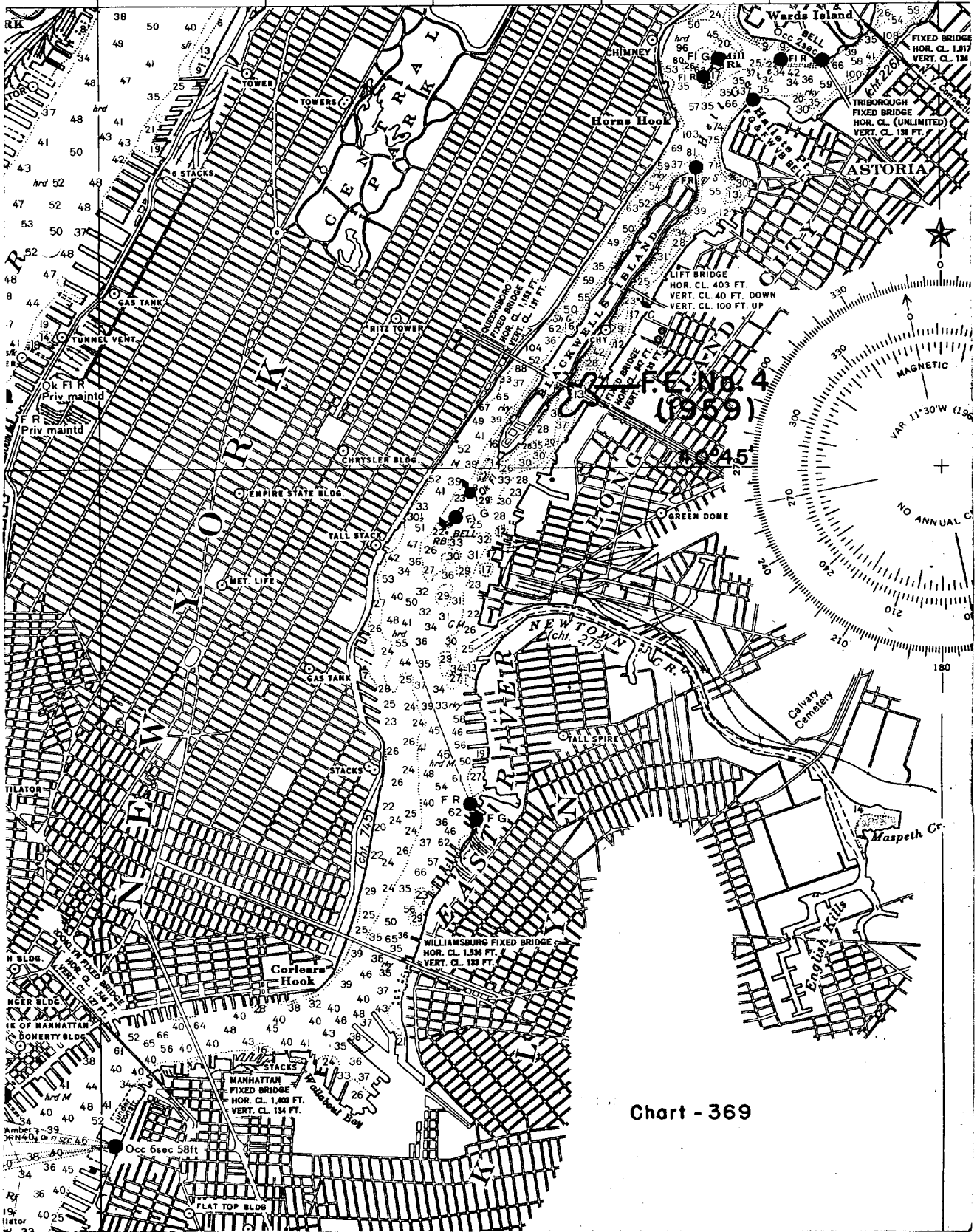


Chart - 369

