

5268

5268

Form 504
Rev. Dec. 1933
DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

Topographic
Hydrographic
~~Archaeologic~~

Air Photographic
Sheet No. T-5268

State Connecticut

LOCALITY

North Shore Long Island Sound

New Haven Harbor

Photographs taken in Oct. & Nov. 1933
Photographs taken in July 1938

193

CHIEF OF PARTY

T.B. Reed, Chief of Field Records Section

Applied to drawing of Chart 218 June 29, 1939 - J.F.W.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No.

REGISTER NO. **T- 5268**

State Connecticut

General locality North Shore, Long Island Sound

Locality New Haven Harbor

Scale 1:10,000 Date of photos Oct. & Nov. 1933
~~survey~~ July 14, 1938, 19...

Vessel

Chief of Party G. C. Mattison, preliminary survey and field work
T. B. Reed, chief of Field Records Sect., final drawing

Surveyed by

Inked by

Heights in feet above to ground to tops of trees

Contour, Approximate contour, Form line interval feet

Instructions dated, 19...

Remarks: Compiled on scale 1:10,000. Scale factor 1.00

Refer to next page for additional data.

DATA RECORD T-5268

PHOTOGRAPHS

<u>Type</u>	<u>Numbers</u>	<u>Date</u>	<u>Time</u>	<u>Scale</u>	<u>Stage of Tide</u>
5 lens	139-162	Nov. 4, 1933	10:55 A.M.	1:10,000	Approx. high
5 lens	163-167	" " "	11:07 A.M.	"	" "
Single lens	73-78	Oct. 12, 1933	11:48 A.M.	"	Just above low
" "	95-114	Nov. 4, 1933	1:05 P.M.	"	Approx. high
9 lens	2320-2330	July 14, 1938	9:15 A.M.	"	1/3 above low

Cameras: 5 lens, U. S. Army, T-3A type; F= 6 in.
Single lens, U. S. Army ; F= 8-1/4 in.
9 lens, U.S.C. & G.S., ; F= 8-1/4 in.

Stage of Tide from predicted tables: mean range 6.3 ft.

SUPPLEMENTAL SURVEYS

Field Inspection: C. More, June 23, 1934

The details of T-5268 are of the date of the photographs except for the items which were located by supplemental surveys as discussed in detail on pages 4 following.

Chief of Party: G. C. Mattison, preliminary survey and field work
T. B. Reed, chief of Field Records Section, final drawing

Projection by: Ruling machine

Control Plotted by: E. W. Frederick and L. A. McGann

Control Checked by: J. W. Gibberman

Radial Plot by: E. W. Frederick

Detail Traced by : E. W. Frederick and L. A. McGann

Reference station: Fort Wooster 3, 1882; Datum N. A. 1927

Lat. 41°16' 55.459" (1710.9 m.)

Adjusted

Long. 72° 53' 35.227" (819.8 m.)

Title:

Connecticut
North Shore, Long Island Sound
New Haven Harbor

DESCRIPTIVE REPORT AND REVIEW FOR AIR PHOTOGRAPHIC SURVEY T-5268

GENERAL INFORMATION

T-5268 was received in this office in May, 1935, but due to the press of work at that time the survey was not reviewed until September, 1937.

The office review in 1937 showed considerable error in the interior details and it was decided to recompile the entire sheet prior to publication. However, the shore line details on the original compilation were corrected and a temporary ozalid copy showing only the shoreline and along shore details was registered in September, 1937.

New nine lens photographs covering most of the area of T-5268 were obtained in July, 1938, and the sheet was recompiled in this office in 1939.

The correction of the topography on chart ²¹⁸228 was held up until the new compilation was available ^{June} - 1939.

An ozalid copy of the new compilation was filed in the sheet tube ^{June 24} - 1939.

The Whatmans or backed paper copy will be filed as soon as the reproduction and printing are completed. *Filed 12/21/39 Contains same information shown on ozalid copy filed June 24 1939 and applied to chart 218 June 29, 1939.*
The original ozalid mentioned in a preceding paragraph as registered in 1937 was removed from the tube and filed in the air photo unit June 23 1939.

The balance of this report consists of a combined report and review for the entire survey. The original descriptive report is superseded by the present combined report and review, except for minor details. It is filed in the Air Photo Section, Washington Office.

CONTROLTriangulation

Coast and Geodetic Survey, 1873-1933 N.A. 1927 datum. The stations on the original compilation received from the field were from the field computations but on this subsequent drawing the stations have all been plotted from their office adjusted values.

Recoverable Stations of less than third order accuracy

Canal Dock Light and a Tank have been located by radial plot as discussed in more detail on page 7 following.

Numerous U. S. Engineer triangulation and harbor line stations, as well as a number of natural objects were located by radial plot and described on Form 524 on the original compilation. These have all been removed because the U.S.E. points have already been adequately located and described by that organization and the other points were not needed because there is abundant triangulation control in the area. If desired at any time, the U. S. E. stations may be plotted without conflict on the map.

FIELD INSPECTION

Field inspection notes were made on the 1933 photographs by the party of G. C. Mattison, in June, 1934. No field inspection has been made since.

In drafting the present drawing from the 1938 photographs, attention has been paid to the previous field inspection notes, and an endeavor has been made to follow those notes except where the new photographs showed conclusively that a change has taken place.

The field inspection appears to have been carefully done and the descriptive report as submitted from the field (filed now as noted in above paragraph "General Information") gives very lengthy detailed descriptions of each part of the city, together with the character of the marshes, etc., throughout the area.

PLOT AND DRAFTING

The radial plot was made principally from the nine-lens photographs. These photographs, however, failed to cover adequately for plotting the southeast and the southwest portions of the sheet. In these areas it was necessary to make use of the original five lens photographs in combination with the nine lens photos.

Due to the lack of coverage in the southeast and southwest areas with a useable portion of the 9 lens photos, it was necessary to trace a certain amount of the detail from the single lens photos, checking any possible changes in the character of the topography against the newer 9 lens pictures.

BRIDGES

Type and clearance data for bridges is shown on the map drawing as given in the 1935 U.S.E. bridge book, except

that clearances have not been given for certain bridges well upstream from the harbor, because of congestion of detail.

INFORMATION FROM OTHER SOURCES

The field inspection which was done in June, 1934, was for the dual purpose of interpreting the 1933 photographs and of surveying by ground methods changes since the 1933 photographs were taken.

The detail of T-5268, however, has been derived from the 1938 photographs. It is of the date of those photographs with the following exceptions:

All detail which cannot be readily seen or readily interpreted from air photographs without field inspection, is of the date of the field inspection of the 1933 photographs, namely: June, 1934. This includes such items as certain marine railways, piles, wrecks, or anything else of narrow surface, or partly submerged at some stage of the tide, or obscured by vegetation.

COMPARISON WITH CONTEMPORARY SURVEYS

There are no contemporary topographic, hydrographic, or graphic control surveys, by the Coast & Geodetic Survey. Recent surveys by the U. S. Engineers are discussed in the following paragraph.

COMPARISON WITH PREVIOUS TOPOGRAPHIC SURVEYS

T-22	(1837)	1:10,000	T-1447a,b	(1877)	1:10,000
T-76	(1838)	"	T-1569b	(1885)	"
T-82	(1838)	"	T-1605	(1877)	"
T-1296	(1872)	"	T-3051	(1910)	"
T-1445	(1871-7)	"	T-3051a	(1909-10)	1:20,000
T-1446a,b	(1875-7)	"	T-4624	(1931)	1:10,000

Because of the many changes to be expected in an area of this character since the above surveys were made, except for T-4624, only a general comparison was made between the above surveys and the compilation. For T-4624 comparison, see the following paragraph.

This compilation is adequate to supersede the portions of the former topographic surveys which it covers, except for (1) certain bluffs, (2) contours, (3) fence lines, (4) certain former roads, now trails of minor importance, (5) certain

small streams (6) certain piles. (7) Where previous surveys showed piles or piers which are not on present survey, it is possible that sunken piles may still exist.

T-4624 (1931) 1:10,000

This survey, not previously reviewed, was reviewed in connection with the compilation.

The survey included only the aids to navigation, breakwaters and a few docks in New Haven Harbor.

- (1) 12 m. difference in position of triangulation station New Haven, 1st Congregational Church, 1873 (which was lost and relocated as Grand Avenue Congregational Church, in 1933). The compilation is correct.
- (2) Triangulation station, New Haven, St. Paul Episcopal Church 1873, is lost, therefore not shown on compilation.
- (3) 9 m. difference in position of Canal Dock Light. Compilation correct.
- (4) Lat. $41^{\circ}16.8'$, Long. $72^{\circ}55.2'$, Watch House destroyed. Piles only shown on compilation.
- (5) 50 m. difference in length of East Breakwater at east end, and slight difference in alignment of breakwater. Compilation correct.
- (6) 25 m. difference in shoreline of Sandy Point. Comp. correct.
- (7) No dates given on triangulation stations. Disagreement in names of several triangulation stations with compilation. Compilation correct. Triangulation station Sandy 1931 on T-4624 should properly be called Sandy Point Lighthouse 1931 to avoid confusion with Sandy 1933 which is located 800 m. distant.

All detail on this planetable survey is now shown on the compilation except:

- (1) Magnetic Declination
- (2) Buoys
- (3) Temporary H. & T. stations

The compilation is adequate to supersede this planetable survey except for the above three items, and in case of any difference between the planetable survey and the compilation, the latter should now be taken as correct.

COMPARISON WITH EXISTING MAPS OF OTHER ORGANIZATIONS

U. S. Engineer Surveys, Topographic and Hydrographic

Topographic

Various U. S. Engineer surveys on scales of 1:1200, 1:2400, 1:3600 made between 1925 and 1937 were compared with the compilation. Because of the large scale difference, only a general comparison of the completeness of the topographic detail was made. No position comparison was carried out. The compilation is adequate to supersede the topography shown on the U. S. Engineer blueprints, on the scale of the compilation, for the area covered, and in case of any large difference the compilation should be accepted as correct. It should be noted that the topography shown on the recent U. S. E. blueprints comes from previous U. S. E. surveys of an uncertain date. Refer to page 3, ^{and} 8 of the Descriptive Report regarding U. S. Engineer Stations.

Hydrographic

Surveys by U. S. E. to 1937, scales 1:1200, 1:2400, 1:3600.

Because of the large scale differences, only a general comparison was made. No position comparison was carried out, but there are no conflicts between the detail on the compilation and the soundings, referencing to topography in immediate vicinity shown on both surveys.

COMPARISON WITH CHARTS

Chart No. 218, Scale 1:20,000, printing 7/14/37

- (1) In the numerous road differences, the present survey should be accepted.
- (2) Although the present survey is not complete for buildings, it should be accepted to supersede previous surveys in this respect.
- (3) Some of the small streams shown on the chart may still exist although not shown on the present survey, but these are of minor importance for charting.

- (4) Where piers or piles are shown on the chart and do not appear on the present survey, submerged piles may still exist.
- (5) The present survey is not complete for: contours, certain bluffs, certain offshore rocks, buoys, submerged pipeline and cable crossings.
- (6) A section of Chart No. 218, printing 7/14/37, is attached showing the main corrections to this chart, not noted above.

LANDMARKS

Lights and Beacons

All lights and beacons are triangulation stations except CANAL DOCK LIGHT which was located by radial plot on this compilation. It's position on Form 567 is being submitted to the Nautical Chart Section in the form of a chart letter a copy of which is attached. Date of location is date of nine-lens photos (July, 1938).

New Haven Light was located by triangulation in 1933 and is also noted in the Light List as having been rebuilt in 1933. It was located however, after it was rebuilt.

Natural Objects

According to the descriptive report received from the field with the original drawing, "the list of landmarks on chart No. 218 is satisfactory and none should be removed. A list of landmarks in addition to those already shown on chart No. 218 is hereby submitted on Form 567." This list is now attached to this report. It is not known whether it has already been submitted as a chart letter for the files.

Errors in the location of various landmarks on the present chart are indicated on the accompanying chart section.

RECOVERABLE H. & T. STATIONS

There are no recoverable H. & T. stations described on Form 524 on this sheet. Two recoverable H. & T. stations were located by radial plot. These are natural objects and have not been described. They are Canal Dock Light and a tank at Latitude $41^{\circ}17.8'$, Longitude $72^{\circ}55.3'$.

Over 55 recoverable H. & T. stations were located on the original drawing as submitted from the field and were described on Form 524,

but all of these have been rejected for the following reasons:

- (1) Three-fourths of the stations were U. S. Engineer triangulation stations, the descriptions and positions of which are available and adequate as published by that organization. The position as located by triangulation appeared of superior accuracy to the radial plot location.
- (2) The remaining stations were unmarked, "natural object" points. Since there was adequate distribution of triangulation stations in the area, these supplemental points served no useful purpose.

These cards have been preserved with, and are filed in the Air Photo Unit files with, the original descriptive report, now superseded.

Junctions

This survey joins with the following air photographic surveys:
T-52 67, T-5272

The junctions have been made satisfactory. Considerable change was necessary on T-5272 in order to effect a junction with that sheet.

GEOGRAPHIC NAMES

Office approved names are attached on Form M-234 at the end of this report. A small amount of discussion on names as obtained in the field is contained in the original descriptive report filed in the Air Photo Unit files.

ACCURACY

The probable error of well defined detail is 8 meters; for less well defined detail, it is 10-12 meters.

ADDITIONAL WORK

This survey lacks contours; it shows part of but not all of the houses; it has indicated only those piles visible at M.H.W. noted by the field inspection party in 1934.

Except for piles and rocks awash at some stage of the tide, the present survey is complete and adequate for chart compilation.

In addition to the above, the following should be noted with regard to the accuracy and completeness of this survey:

- (1) No cultivated areas have been delineated. Open areas not otherwise noted may be either cultivation, grass and brush, filled in marsh, or built up or partly built up urban or sub-urban areas.
- (2) The shoreline, together with the attending rocks awash, rock ledges, piles and wrecks awash, was inspected in 1934 fairly completely but not perfectly. The 1938 photographs, from which most of the detail on this present drawing was obtained, showed certain differences with the 1933 photographs. Some of these differences were obviously changes in conditions between the two dates; other differences could not be so easily accounted for without further field inspection, which was not practicable.

Differences in the stage of the tide between the various sets of photographs, and the lack of coverage in the Southeast and Southwest portions of the sheet with the 9-lens photographs added to the difficulty of interpretation. Altogether there have been many obstacles in the way of satisfactorily completing this survey.

- (3) The present sheet-layout prevented the inclusion of the Ludington Rock breakwater and the West breakwater. The ends of these breakwaters were located by triangulation and can therefore be readily charted. The only topography, other than the straight breakwaters, which occurs is a small amount of sandy shoreline on the Southeast end of the West breakwater in the vicinity of New Haven Light.
- (4) The review of this survey has been concentrated on the features of most importance for charting, the examination has been mainly confined to determining the general accuracy, and the general completeness of topographic detail. Due to the amount and the complexity of the detail and the involved conditions under which this final map drawing has obtained, a complete check on the shape, size, position and existence of all detail was considered impracticable and was not made by the reviewer.

Furthermore, when the next survey is made of this vicinity, the following items not definitely established by this survey, should receive attention:

- (1) The existence of pier wreckage between the end of the Canal Dock as shown on this drawing, and Canal Dock Light.
- (2) The identification and location of the stack which, with the Sailors and Soldiers Monument, gives the range for the outer channel as mentioned in the Coast Pilot Atlantic Coast, Section B, 1933, Page 192, line 11 from the bottom.

The photographs show 8 tall stacks in the vicinity of this range. It is believed that the stack which is on the range is the westernmost of the 4 stacks which are on the south side of a building of the United Illuminating Company, on the south side of Grand Avenue, on the island in Mill River.

June 11, 1939, Combined report and review by: T. M. Price, Jr.
T.M. Price, Jr., Field Records
Section ~~(In charge of Field In-~~
~~pection and Office compilation,~~
~~Potomac River)~~

Inspected by: B. G. Jones
B. G. Jones

Examined and approved:

T. B. Reed
T. B. Reed,
Chief, Section and Field Records

K. T. Adams
Chief, Division of Charts.

Fred. L. Peacock
Chief, Section of Field Work

G. H. de
Chief, Division of H. & T.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

TO BE CHARTED }
~~TO BE DELETED~~ }
 STRIKE OUT ONE

Washington, D. C.

I recommend that the following objects which have ~~(page 2802)~~ been inspected from seaward to determine their value as landmarks, be charted on ~~(deleted from)~~ the charts indicated.

The positions given have been checked after listing.

~~Section of Field Records~~ Chief of Party.

ATTS TO NAVIGATION

GENERAL LOCALITY	NAME AND DESCRIPTION	POSITION					METHOD OF LOCATION	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
		LATITUDE		LONGITUDE		DATUM						
		°	'	°	'							
NEW HAVEN	Canal Dock Light	41-17	1151	72-56	1200	NA 1927	Air Photos	July 1938				218
Listed by L.A.M. Gann, June 12, 1939												
Checked by: J.W. Gibberman, "												

This form shall be prepared in accordance with 1934 Field Memorandum, "LANDMARKS FOR CHARTS." The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

TO BE CHARTED } STRIKE OUT ONE
~~TO BE DELETED~~

Bridgeport, Conn.

May 16

1935

I recommend that the following objects which have ~~(been used)~~ been inspected from seaward to determine their value as landmarks, be charted on ~~(existing charts)~~ the charts indicated.

The positions given have been checked after listing.

G. C. Mattison

Chief of Party.

GENERAL LOCALITY	NAME AND DESCRIPTION	POSITION						METHOD OF LOCATION	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
		LATITUDE		LONGITUDE		DATUM							
		°	'	D. M. METERS	°		'						
	Tower, Gold Dome 220' high (△ Union & N. H. Trust Co. Tower)	41	18	910.8	72	55	638.6	N. A. 1927	1933			218 ✓ 1212 ✓	
	Tank, Steel, Elevated (△ Sargent & Co. Tank, Elevated)	41	18	146.9	72	54	986.1	" "	1933			218 ✓ 1212 ✓	
	Tank, Steel, Elevated (△ Seamless Rubber Co. Tank, Elevated)	41	17	625.0	72	55	1084.9	" "	1933			218 ✓ 1212 ✓	
	Stack (△ Winchester Hospital Stack)	41	17	31.9	72	57	997.5	" "	1933			218 ✓ 1212 ✓	
	Tank, Steel, Elevated (△ Winchester Hospital Tank, Elevated)	41	16	1788.7	72	57	1087.8	" "	1933			218 ✓ 1212 ✓	
	Tower; (△ Yale Divinity School Tower)	41	19	735.3	72	55	437.9	" "	1933			218 ✓ 1212 ✓	
	Stack, Yellow Brick 250' high (△ Koppers Coke Co. Tall Stack)	41	17	221.3	72	54	288.8	" "	1933			218 ✓ 1212 ✓	
	Tank, Steel, Elevated 120' high (△ Armstrong Rubber Co. Tank, Ele.)	41	16	579.6	72	57	846.0	" "	1933			218 ✓ 1212 ✓	
	Cupola, White Above Black Roof 150' high (△ N.H. Hospital Cupola)	41	18	287.2	72	56	175.5	" "	1933			218 ✓ 1212 ✓	
	This page a duplicate of Letter 449 (1935)												

This form shall be prepared in accordance with 1934 Field Memorandum, "LANDMARKS FOR CHARTS." The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

GEOGRAPHIC NAMES

Survey No. T-5268

Name on Survey	On Chart No. 218	On previous survey No.	On U. S. quadrangle Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List	
	A	B	C	D	E	F	G	H	K
<u>Beaver Park</u> off				✓ D.R.					1
<u>Whitney Lake</u> off			✓						2
<u>East New Haven</u> ✓	✓		✓						3
<u>Farm River</u> off			✓	✓					4
<u>Lake Saltonstall</u> off			✓						5
									6
									7
									8
									9
									10
									11
									12
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									23
									24
									25
									26
									27

Names underlined in red approved
by LHE on 8/14/37

GEOGRAPHIC NAMES

Survey No. **T-5268**

GEOGRAPHIC NAMES											
Survey No. T-5268											
Name on Survey	<div>On Chart No. 218</div> <div>On previous survey No.</div> <div>On U. S. quadrangle Maps</div> <div>From local information</div> <div>City Engrs Map</div> <div>On local Maps</div> <div>New Haven Atlas P.O. Guide to Maps (1879)</div> <div>Rand McNally Atlas</div> <div>U. S. Light List</div>										
	A.	B.	C.	D.	E.	F.	G.	H.	K.		
<u>Long Island Sound</u>	1212		✓							1	
<u>Prospect Beach</u> ✓										2	
<u>Sea Bluff</u>										3	
<u>Bradley Rocks</u> ✓			Savin RK							4	
<u>Bradley Pt.</u> ✓	Savin RK			✓ D.R. pg. 11	✓					5	
<u>Cove River</u> ✓			✓	✓ D.R. pg. 11						6	
Painter Park										7	
<u>Lake Phipps</u> ✓	GNS									8	
<u>West Haven</u> ✓	✓		✓	✗	✓		✓			9	
<u>Allingtown</u> ✓		T-1447	✓				✓			10	
st. Lawrence Cemetery				✗	✓					11	
Yale Bowl				✗	✓					12	
Edgewood Park										13	
Beaver Park Hill	Beaver Hill	T-1447 Beaver Hill	Beaver Hill							14	
<u>Mapledale Cemetery</u>				✗	✓					15	
<u>Evergreen Cemetery</u>		T-1447			✓					16	
<u>st. Bernard Cemetery</u>		T-1447			✓					17	
<u>Club Cr.</u> ✓	✓	T-1447								18	
<u>West River</u> ✓	✓	T-1447	✓		✓					19	
✓ <u>West River Mem. Park</u>										20	
<u>Causeway Cr.</u> ✓	✓	T-1447	Conditions have changed & this CR. is no longer significant } T.M. ? June 1939								21
<u>old Field Cr.</u> ✓	✓	T-1447								22	
<u>Savin Rock (Locality)</u>			✓	✓	✓					23	
<u>Luddington Rk. Break-water</u>	✓									24	
<u>sandy Pt.</u> ✓	✓	T-1447	✓							25	
<u>City Pt.</u> ✓	Oyster Pt		Oyster Pt	✓ D.R. pg. 10	✓					26	
<u>New Haven Hbr.</u>	✓		✓							27	

M 234

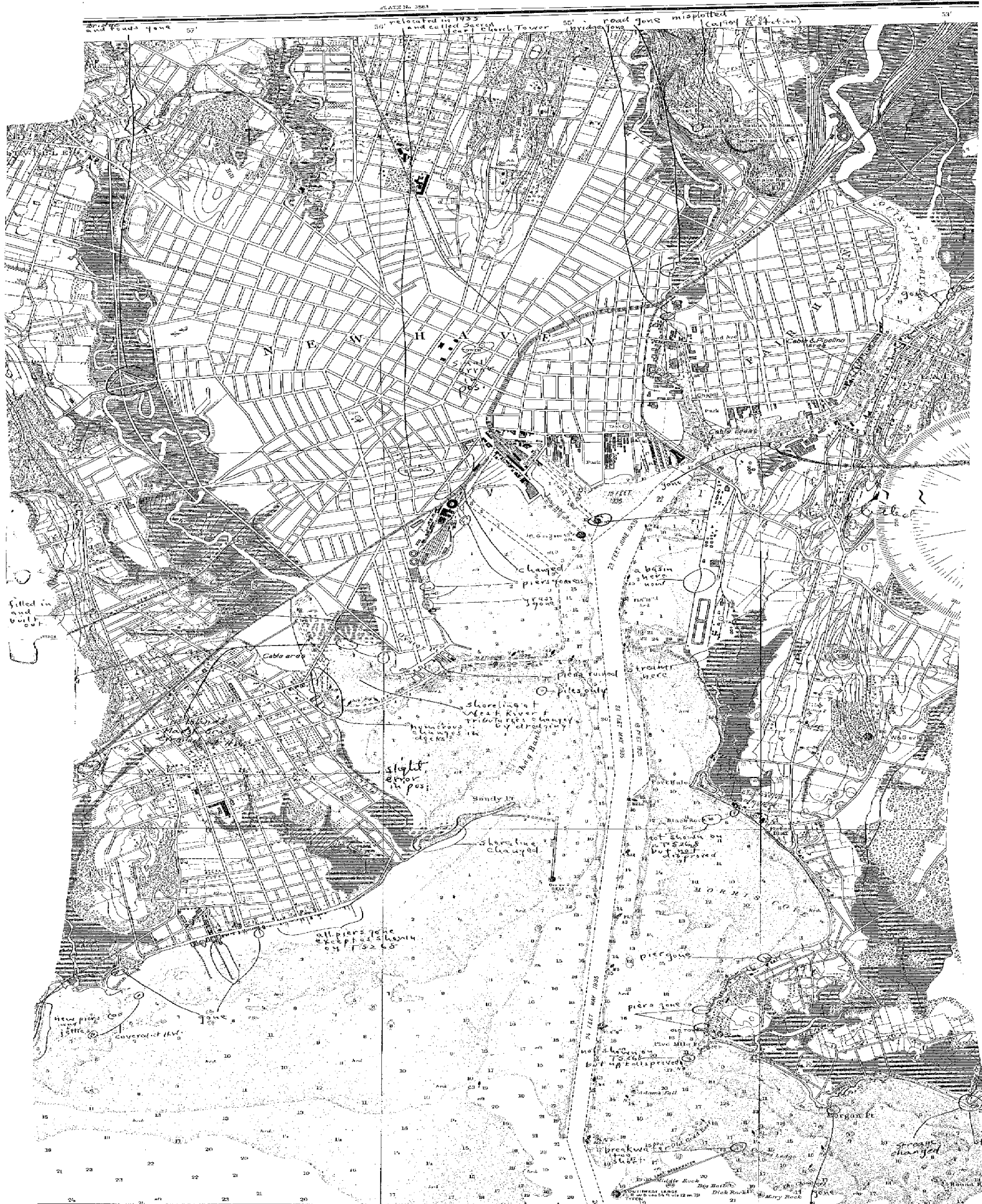
GEOGRAPHIC NAMES
Survey No. T-5268

Name on Survey	A. On Chart No. 218	B. On previous survey No.	C. On U. S. quadrangle Maps	D. From local information	E. City Engrs Map of New Haven P.O. Guide (1879)	F. On local Maps of New Haven P.O. Guide (1879)	G. Rand McNally Atlas	H. U. S. Light List	K.
<u>New Haven</u> /	✓ USGB		✓		✓				1
<u>Mill River</u> /	✓	T-1445	✓		✓				2
<u>Waterside Park</u> /									3
<u>Fair Haven</u> /	✓		✓						4
<u>Fort Hale Park</u> /	Ft Hale	T-1446 Ft. Hale	Ft. Hale		✓				5
<u>Morris Cove</u> /	✓ USGB		✓		✓				6
<u>Lighthouse Pt</u> /	Five Mile Pt		Lt. House Pt.	✓ OR pg. 10	✓	✓			7
<u>Morgan Pt</u> /	✓		✓		South End		✓		8
<u>Morris Cr.</u> /	✓								9
<u>Morris Cove</u> (Locality)									10
<u>Raynham</u> /	✓		Raynham Hill						11
<u>Ft. Wooster Park</u> ✓			Ft. Wooster						12
Quinnipiac									13
<u>Quinnipiac River</u> /	✓	T-1445	✓		✓				14
<u>Fair Haven East</u> /	✓	T-1446							15
OUT <u>Prospect Hill</u> /	✓	T-1445							16
OUT <u>East Rock Park</u>	East RK								17
<u>Cedar Hill</u>									18
<u>Fairmont Park</u>									19
<u>Caroline Cr.</u> ✓	✓	T-1296							20
<u>South End</u> /	✓		✓		silver sands				21
<u>Snake RK</u> <u>off</u> ✓	✓		✓						22
<u>Indian Head</u> <u>off</u>			✓						23
OUT <u>Westville</u>	✓	T-1445	✓				✓		24
<u>Forbes Bluff</u>	✓					✓			25
<u>Quinnipiac Park</u>									26
									27

Names underlined in red approved

by JHE on 8/12/37

Section
Chart 218
(Ed. 7/14/37)
compared with T 5268



5268

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES

MAY 20 1935

Acc. No.

Form 504
Ed. June, 1923

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

L. O. Colbert, Director

State: Connecticut

DESCRIPTIVE REPORT

Photo
Topographic
Hydrographic

Sheet No. T-5268.

LOCALITY

North Shore Long Island Sound

New Haven Harbor

Photographs taken in Nov. 1933.

Photographs taken in July, 1938.

19

CHIEF OF PARTY

T. B. Reed, Chief of Section.

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY

REG. NO.

AIR PHOTO
TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. 9

REGISTER NO. T-5268

T5268

State Connecticut

General locality North Shore
Long Island Sound

Locality New Haven Harbor

Date of Photographs Nov. 4, 1933
Scale 1:10,000 Date of survey & compilation Oct. 24, 1934

Vessel Army Air Corps Airplane
Reviewed and recommended for approval:

Chief of party Lieutenant Commander G. C. Mattison

Photographs radial plotted by: C. More June 4, 1934

Surveyed by S. Lebowsky Sept. 1, 1934

Photographic detail traced by: C. More June 11, 1934

Inked by S. Lebowsky Oct. 24, 1934

Heights in feet above to ground to tops of trees

Contour, Approximate contour, Form line interval feet

Instructions dated August 10th and September 9th, 1933

Remarks: Compilation of aerial photographs Nos. M-139-880-14

to M-167-880-14 on scale of 1:10,526 and enlarged to scale

1:10,000 and printed by the photo-lithographic process.

See also the review at back.

JOB SHEET

PHOTOGRAPHS TRIMMED BY:	J. Andrews 3d	1/15/34
FIELD INSPECTION BY:	C. More	6/23/34
INTERSECTIONS & CONTROL POINTS MARKED BY:	J. Andrews 3d	1/29/34
PHOTOGRAPHS MOUNTED BY:	C. More	2/8/34
RADIAL LINES DRAWN BY:	C. More	2/12/34
PRELIMINARY RADIAL PLOT BY:	C. More	2/9/34
SCALE FACTOR COMPUTATION BY:	C. More	2/13/34
SCALE FACTOR VERIFIED BY:	J. Andrews 3d	2/14/34
POLYCONIC PROJECTION BY:	C. More	5/4/34
POLYCONIC PROJECTION VERIFIED BY:	H. W. Jennings	5/4/34
TRIANGULATION STATIONS PLOTTED BY:	C. More	5/7/34
TRIANGULATION STATIONS VERIFIED BY:	H. W. Jennings	5/8/34
SMOOTH RADIAL PLOT BY:	C. More & S. Lebowsky	6/4/34 9/1/34
TRACING OF PHOTOGRAPHIC DETAIL BY:	C. More & S. Lebowsky	6/11/34 10/24/34
PRELIMINARY INSPECTION OF SHEET BY:	G. C. Mattison	1/2/35
FINAL INSPECTION OF SHEET BY:	G. C. Mattison	5/7/35
FORWARDED TO OFFICE		

~~Date: N.A. 1927~~
~~Reference Station: Ft. Webster 3, 1884~~
~~Kat. 41° 16' 55.433" (1770.7 meters) unadjusted~~
~~Long. 72° 53' 35.188" (878.8 meters)~~

Sheet recompiled in office. Refer
to the review at the back.

Bgg.

DESCRIPTIVE REPORT

To accompany

PHOTO TOPOGRAPHIC SHEET NO. T-5268

FIELD NO. 9

CONNECTICUT

NEW HAVEN HARBOR

GENERAL INFORMATION

Sheet No. T-5268 covers the area in the vicinity of New Haven, Connecticut, and extends along the coast from the vicinity of Prospect Beach in the Town of West Haven to the vicinity of South End in the Town of East Haven.

The photographs were received on December 11, 1933.

The major portion of the field inspection was made by Mr. C. More.

The smooth radial plot was made by Mr. C. More and Mr. S. Lebowsky.

The tracing of the detail was started by Mr. C. More and completed by Mr. S. Lebowsky.

The sheet was made in accordance with instructions from the Director dated August 10th, 1933 and supplemental instructions dated September 9th, 1933.

A general report covering this area has not been made and all information is contained in this report.

PHOTOGRAPHS

5 Lens

The photographs used were taken by the Army Air Corps Model T3A camera AC31-78 and consisted of two flights. The first flight was designated 880-14 and the pictures used were numbered M139 to M162 inclusive, the numbering increasing in the direction of the flight which was from southwest to northeast. The second flight was designated 880-14 and the pictures used were numbered M163 to M167, the numbering increasing in the direction of the flight which was from west to east.

Data on the photographs and index sheet indicate the camera

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to have a focal length of six (6) inches and the pictures taken at a height of 5,000 feet.

The photographs of the first flight were dated November 4th, 1933 and the first exposure was made at 10:55 A. M. The stage of the tide was computed from the Bridgeport tide gauge as being 6.0 feet. ✓

The first exposure on the second flight was made at 11:07 A. M. of the same day. The stage of the tide was computed from the Bridgeport tide gauge as being 6.4 feet. ✓

Single Lens

These photographs, composed of four flights, were used to confirm a few doubtful areas on the wing prints of the five lens photographs. One flight designated 880D-8 was taken October 12, 1933 at 11:48 A. M. and were numbered V71 to V78 inclusive. The other three flights used and designated 880C-8 were taken November 4, 1933 at 1:05 P. M. and were numbered V95 to V114 inclusive.

The scale factor of these flights was determined as follows:

Flight 1, V73 to V78 (880D-8), Scale Factor 0.984.
Flight 2, V95 to V100 (880C-8), Scale Factor 1.023.
Flight 3, V101 to V108 (880C-8), Scale Factor 1.018.
Flight 4, V109 to V114 (880C-8), Scale Factor 1.010.

All of these photographs were reduced to the same scale factor as used on the five lens photographs which was 0.95.

The focal length of the camera was 8.25 inches and the indicated height flown was 6875 feet. No information was received as to the number of the camera. The stage of the tide for flight (880D-8) was computed from the tide tables as being 1.1 feet and that of the 880C-8 flight was computed from the Bridgeport tide gauge as being 5.8 feet.

Sheet recompiled with 9 lens photos. Refer to review at back.

GENERAL DESCRIPTION OF TOPOGRAPHY

The sheet comprises territory lying in New Haven County.

The political subdivisions shown are East Haven, New Haven and West Haven in the order named westward from the easterly end of the sheet.

The westerly boundary of East Haven is Morris Creek and a meandering line running north through the air port to approximately 41° 17' latitude and then in a northeasterly direction all as shown on the accompanying map of the City of New Haven. The City of New Haven extends northward beyond the limits of this sheet. The Town of West Haven is bounded on the east by the West River and on the north by Derby Avenue and extends in a westerly direction beyond the limits of this sheet.

East Haven

The terrain is generally flat southeast of Morris Creek with a marshy area directly back of a sandy fore shore. This shore is used principally by summer colonists as a beach resort. The terrain in a northerly and northeasterly direction from the head of Morris Creek is a gently rolling country, used largely by truck farmers, with a few sparsely wooded areas.

A more complete description of this area will be furnished with the adjacent sheet to the east.

New Haven

The city is thickly populated and highly developed and the terrain is gently rolling with a few abrupt changes in elevation. A distinct rise in elevation starts at the first street shown about one quarter mile east of the shore at a point approximately midway between Fort Hale Park and the plant of the Koppers Coke Co. The highest point of this rise, which is about 200 feet high, is located in the vicinity of Fort Wooster Park.

A second distinct rise in elevation starts about one quarter mile north of triangulation station "Sterling Tower", running in a northerly direction beyond the extremities of this sheet in the vicinity of Yale Divinity School. This rise reaches an approximate elevation of 140 feet. This is a long narrow area and is known as Prospect Hill.

On the east bank of the Quinnipiac River the terrain rises to an approximate elevation of 140 feet.

In the vicinity of and about one quarter mile west of triangulation station "N.Y., N.H. & H.R.R. Coal Pocket" there is an abrupt change in elevation running in a northerly direction beyond the extremities of this sheet.

The city is laid out in a street grid system and built up with large buildings, commercial enterprises and dwellings.

** This station
has been rejected by
adjusters and con-
sequently it is not
shown on T-5268A
P.A.M.
5/4/39*

East Shore

The city has developed the area in the vicinity of triangulation station "Old Tower" and is known as Lighthouse Point Park. The area to the northeast of Lighthouse Point Park is known as Morris Cove and is used by beach colonists for summer homes. The cove is used as an anchorage by yachts and launches. In the vicinity of $41^{\circ} 16'$ latitude and $72^{\circ} 54'$ longitude, there is a rocky bluff known as Forbes Bluff. Part of the marsh area in the vicinity of the Municipal Airport is at present being reclaimed to enlarge the facilities of the airport. In the vicinity of triangulation station "Hale" the area is developed into a park by the city and is known as Fort Hale Park. The area northeast of this park is known as Raynham. There is a narrow strip of marshy area north of this park running north to the Koppers Coke Co. plant. The fore shore of this marsh area consists of a narrow strip of sandy beach. From this point to the Tomlinson Bridge the shore has been built out and is well developed by coal and oil companies.

Quinnipiac River

At the entrance to the Quinnipiac River, both banks of the river are developed by commercial enterprises and small dwellings. On the east bank of the river and on the northerly extremities of this sheet there is a large marsh area. To the east of this river, the section is known as Fair Haven East and to the west it is known as Fair Haven.

Mill River

Both east and west banks of the Mill River are well developed by commercial enterprises. The United Illuminating Co. has a power plant on the island in Mill River. The Grand Avenue bridges across Mill River are the head of navigation except for small craft.

North Shore

The shore front, starting at the Tomlinson Bridge and going west therefrom to the vicinity of triangulation station "Seamless Rubber Co. Tank (Elevated)", is well developed by commercial enterprises and railroad yards. The area just north of Canal Dock Light has been developed by the city for park purposes and is called Waterside Park.

The group of buildings shown just northwest of triangulation station "Center Church Spire" are some of the more prominent Yale University buildings which are located in and around the business district.

City Point

The neck of land on which triangulation station "City" is located is known as City Point. On the east side of this neck is a small city park known as "Bayview Park". On the west side of this neck is a city play ground known as "Kimberly Playgrounds" and which has been recently developed. The southeast shore of this neck is developed with docks and piers by several shell fish companies. Part of the marsh on the southwest shore of this neck is at present being filled in with refuse. The high water line at this point was taken from the photographs and there is no doubt that the actual high water line is somewhat further south, at this time, than shown on this sheet.

West River

The lower portion of the West River has a dredged channel and is partly developed by commercial enterprises. Large areas adjacent to both the east and west banks of this river near its mouth, have been hydraulically filled.

The area in the vicinity of the West River on the northwest corner of this sheet has been filled and is being developed as a city park. A lagoon has been formed by dredging some of the marshy area adjoining the river

West Haven

The terrain is generally flat south of the main line of the

N. Y., N. H. & H. R. R. and to the north, the terrain is gently rolling. The town is fairly well developed with dwellings and a few commercial enterprises. The business district is located in the vicinity of triangulation station "West Haven Cong. Church Spire".

The shore front, at a point immediately south of the mouth of West River, is developed by commercial enterprises. Starting at a point about one quarter of a mile south of West River and running in a southeasterly direction for about half a mile, the shore front is developed with small dwellings.

In the vicinity of $41^{\circ} 16'$ latitude and $72^{\circ} 56'$ longitude the fore shore is marshy with a sand spit running out about one half mile and is connected to the mainland at low water. Near the outer extremity of this point, which is known as Sandy Point, an ell shaped breakwater is connected to Sandy Point Beacon. The northerly portion of this breakwater is covered at high tide. *Des. Report T 4624 (1931) states that part of this dike is submerged at low water.*

Starting in the vicinity of triangulation station "Beach" and running in a westerly direction for about one mile, the shore front is highly developed with an amusement park and bathing beaches, and is known as Savin Rock. This includes the area just south of Thomas Street and east of Cove River.

About one quarter mile east of Cove River there is a cliff about twenty feet high on the shore front.

At a point immediately east of Cove River the neck of land is known as Bradley Point and is used by summer colonists as a beach resort.

The shore front immediately west of Cove River and running in a southwesterly direction is known as Prospect Beach.

The locality south of Derby Avenue and north of Spring Street is known as Allingtown.

The area in the vicinity of a point just east of Cove River and about half a mile north from the shore, is being developed as a town park and is called Painter Park. *(Name not shown as it has not been approved)*
L.A.M.
5/22/39

CONTROL

Sources

(1931 As by Egner were all relocated by Mattison in 1933. Some were given different names in 1933. Original names noted in parenthesis on compilation)

1st Order Triangulation	1932	by	C. D. Meaney	<i>(station intersection point no check position)</i>
2nd Order Triangulation	1933	by	G. C. Mattison	
3rd Order Triangulation	1933	by	G. C. Mattison	
Theodolite 3 Point Fixes	1933	by	G. C. Mattison	

Triangulation of 1873, 1882 and 1910, not relocated in 1933, appears on sheet.

All were adjusted to the North American Datum Plane of 1927.

Errors

The positions from field computations were used for stations located or relocated in 1933 which represents the great majority of As on this compilation.

No errors in control were found by the radial plot.

Other Sources of Control

No other sources of control were used.

COMPILATION

Method

The photographs were adjusted by means of the radial plot method. The scale of this sheet as drawn is 1:10,526. The scale factor was computed as 0.97 but 0.95 was used in laying out the projection. This was the computed factor used for the most westerly sheet at the beginning of this flight.

Where the single lens flights overlapped the five lens flights, points common to both were picked. The topographic detail was traced in from the single lens photographs by adjusting between these points as determined by the five lens photographs.

Adjustment of Plot

In the area known as City Point, the wing prints showed considerable distortion. Additional radial plot control points were added and marked adjustment was required to trace in the high water line. The photographs affected are the C prints of M145 to M149 inclusive.

The distortion between control points was very marked in the vicinity of Fort Hale Park and the area just northeast of Fort Hale Park. This was largely due to two causes, the first being that this area is on the outer extremities of the wing prints and the second being differences in elevation as discussed under general description of topography of the City of New Haven. A maximum number of control points were picked and the topography traced in from the wing prints of the five lens flight by adjusting between these points. No single lens photographs were available for this area.

In the vicinity of triangulation station "Yale Divinity School Tower", the distortion was quite marked due to the same reasons as stated above.

Interpretation

No great difficulty was encountered in deciding the character of the photographic detail except as noted below:

The area to the east of Morris Creek and north of South End appeared as a wooded area on the photographs. (Photographs M166 - B print). Field inspection proved this area to be a marshy area covered by grass, brush and trees.

The area between high and low water starting at the western extremities of this sheet and extending up to Sandy Point, is sandy and strewn with boulders in some spots. At the outer extremity of Bradley Point the fore shore is ledge rock. Starting in the vicinity of triangulation station "Coke" and extending in a general southerly direction through Lighthouse Point, Morgan Point and South End, be-

Sheet recompiled in office. See Review at back.

yond the extremities of this sheet, the foreshore is sandy except at the west shore of Lighthouse Point Park, which has a ledge rock foreshore. Also at Morgan Point and South End the foreshore is ledge rock. The remaining coast line of the area between high and low water is slimy mud which is largely due to sewerage discharging into the upper harbor.

Attention is directed to single lens photograph V106 (880C-8) for a pictorial representation of sewerage emerging from two outfalls near the mouth of the Quinnipiac River; also to M148 and M152 (C prints) showing sewer outfalls.

High water lines on the marshes are difficult to delineate accurately as the marshes are indefinitely flooded at high tide. In general, the line between the short meadow grass and the high grass, which generally grows below the high water line, was used to define the high water line.

The low water line is not shown on this sheet as the photographs were taken near high water. However the low water line, as shown from Lighthouse Point to South End, was taken from the single lens flight (photographs V73-78 inclusive) which were taken near low water.

No shoal areas were visible on the photographs except the small area adjacent to the southwest shore of City Point which is a mud shoal. All remaining shoal areas shown on this sheet were put in merely by field inspection.

No channels in the harbor were visible on the photographs. However, dredging operations which were carried on in the New Haven Harbor for quite some time are being finished at this date.

The major portion of the field inspection was made by Mr. C. More who walked the entire shore line.

Conventional Signs

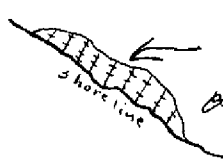
Except as noted below, only the usual graphic symbols as approved by the Board of Surveys and Maps were used.

A full double line indicates a good motor road and a broken double line indicates a poor motor road. A very poor road or trail is indicated by a single dashed line.

The boundaries of shoal water areas are shown by a fine dashed line. This was done by inspection of the photographs in the field and may depart somewhat from true conditions. *Removed from sheet. Marsh or sand symbol used to indicate important shoal areas.*

The railroad yards are indicated by the photographic inspection of the track layout. The general layout may be assumed to be substantially correct but it was impossible to show the exact number of tracks. As a rule, the outside limit of the track system was taken and a few intermediate tracks shown. Round houses are shown by circles or semicircles which have been cross hatched and open turn tables by circular figures with rails shown radiating from its center.

The following symbol used on this compilation indicates a bluff or cliff:



Sheet was compiled later and standard symbol used. Bgg.

The main line of the N. Y., N. H. & H. R. R. is a four track line. Other branches and number of tracks are noted on the overlay. The main line and other branches of this railroad are electrified and may be considered as transmission lines. *width exaggerated 4m.*

This area is a highly developed district, practically every street being occupied on both sides by commercial buildings and dwellings. It was not, therefore, considered practical to indicate these buildings by conventional signs except those near the shore and the more prominent ones inland. Where the distortion was very great, no attempt was made to represent even large buildings. Where buildings interfered with hydrographic station symbols, these buildings were not shown. The circular on buildings dated April 1 (Field #2) was not received until the compilation of this area was completed and should not apply to this sheet.

Baseball fields are indicated by a diamond shaped figure as appearing on the photographs. *labelled on sheet*

Football fields are shown as rectangular figures with a line through the center of the field.

Tennis courts are shown as open rectangles.

Jetties or groins are represented by single solid lines extending from the shore into the water. Dashed lines as above represent groins or jetties covered at high water.

The ~~dotted~~ ^{dashed} rectangle on the Koppers Coke Co. property represents a travelling crane. The two parallel lines near the ends of this rectangle represent the rails upon which it runs. The heavy single line running through the center of the piers on the above property and on the two adjoining piers to the north represent belt conveyors. *labelled on sheet*

Single rail symbols projecting into the water represent marine railways. *labelled.*

Solid single lines at Morgan Point and on the sandy fore shore of the area east of Morgan Point represent sea walls.

The ~~dotted~~ ^{dashed} lines on the beach at Lighthouse Point represent a fence.

Broken lines in Sandy Point dike represent the portion covered at high water. *(Noted in des. Report T 4624 (1931) as covered at L. W.)*

All railroads of two or more tracks are shown by double lines, the outside limits being shown. *The N. Y. N. H. & H. R. R. line running S. W. from New Haven is a four track line measuring 12 m. It is shown as 16 m. on the compilation.*

Electric street surface railways are represented by a solid single line between the street lines. Busses have replaced electric street surface railways in many cases. This condition prevails throughout the State of Connecticut. Where such a condition exists, the tracks do not show on the sheet.

Tide gates are shown on the following rivers: One is shown. *Some piles have been shown thus: 880, considerably exaggerating their true size on the ground. Corrected on recompilation L.A.M. The extensive system of dashed lines in the cemeteries probably indicated paths along the graves. No paths in cemeteries shown on recompilation. L.A.M. 5/31/39.*

on the upper part of the Mill River just west of the Connecticut Company car barn. Another is shown on the West River just south of the Orange Avenue Bridge. A tide gate is shown at the mouth of the Cove River. There is a small tide gate at the opening to the moat in the Fort Hale Park area near U. S. E. #1. Due to the narrowness of the inlet and the amount of detail, it was impossible to show it.

Tide gates labelled on sheet.

Comment is directed to the great number of mosquito and drainage ditches in the marshy area and their interference with the conventional symbols for marsh land.

Many of the streets throughout the city are bordered with trees and it was thought advisable not to show the trees.

The football stadium known as Yale Bowl is shown on the northwest corner of the sheet as an oval shaped figure.

labelled

Fixed bridges are indicated by the road crossing the body of water, no symbol being used. *Kimberly Ave. Bridge East West River also shown thus.*

Character of Marshes

The marsh areas in general are covered by salt grass and are as a rule barely covered at an extreme high or flood tide. Some of the grass is cut and used by the owners where it can be harvested.

Information From Other Sources

There is forwarded with this sheet a blue print which is officially issued by the City of New Haven as a city map and it was used to identify locations of indefinite streets on the photographs. However no streets show on this sheet if they did not show on the photographs, hence no projected streets are shown.

filed in this Photo Section

A map of the Town of East Haven will be submitted with the adjoining sheet to the east (Sheet #5272).

Four blue prints were received from the U. S. E. Office showing the U. S. E. harbor lines for New Haven Harbor. Sheets Nos. 1, 2 and 3 are dated December 10, 1925 and the fourth sheet which is also called Sheet No. 1 and dated September and October, 1907, were used. These prints were used to locate U. S. E. stations in the field and are described on form 524. - *Sheets filed as blueprints*

Sheets 1, 2 and 3 filed as
Bridges *Blue prints 21813, 14, 15 21813, 14*

All bridges over navigable waters shown on this sheet are as listed in the U. S. Engineers "List of Bridges over Navigable Waters, 1927 edition. This list also agrees with the descriptions in the U.

S. Coast Pilot, 1933 edition. *No bridge shown on cover sheet*

1935 revised
Hydrographic Signals

all sheet the upper bridges have clearance notes on the drawing

Several prominent landmarks along the shore front were spotted on the photographs and were cut in on the sheet by the photo radial plot method. The descriptions for these stations are submitted with this sheet on form 524.

55 cards from 524 filed under the number of this compilation.

The descriptions & sketches of U. S. E. stations are copies of the des. & sketches appearing on U. S. E. blueprints (office file nos. 21813, 14, 15)

The beacon light off the tip of Canal Dock was spotted on the photographs and cut in by the photo radial plot method. This light is listed as Canal Dock Light and is maintained by the N. Y., N. H. & H. R. R. Location is as of the date of the photographs ~~(April, 1933)~~ (July, 1938)

U. S. E. Stations

The recovered U. S. E. stations were picked on the photographs in the field by Mr. Joseph Andrews 3d and a radial plot made to determine the position of each station. A more complete discussion of these stations will be found under the heading "Comparisons With Other Surveys". *Several U.S.E. stations were picked on the photos, and plotted, only from the U.S.E. description. See note opposite page 14.*

Cable Areas

The signs marking the cable areas were spotted on the photographs and a photo radial plot was made for these points and picked on this sheet. *"cable sign" labels removed from compilation.*

All cable area signs are shown in red on the overlay with the surrounding topography.

At the cable area in the vicinity of Kimberly Avenue Bridge over West River, no signs were evident.

Channel Range

The Harbor Master advised the writer that the west stack of the United Illuminating Company power plant on Grand Avenue and the Soldiers and Sailors Monument located on East Rock beyond the extremities of this sheet, are on range with the outer channel. *There are 5 stacks at this plant. One of the center ones plots on range. The westernmost one does not.*

On sheet #2 of the U. S. E. harbor survey, there is a notation which states that a certain point (drill hole on curb) near the top of this print and Soldiers and Sailors Monument are on range with the outer channel. This point is called "Sounding Point U. S. E. Range Mark" on our triangulation and was determined by theodolite 3 point fix. *This plotted on chart and found correct.*

Both of these ranges check with the channel as shown on chart #218.

Geographic Names *See name list at end of report for approved geographic names.*

Except as noted below there are no changes of names on the U. S. C. & G. S. charts for this area.

Conflicting Names

Five Mile Point, so called on the chart for this area, is now known as Lighthouse Point. It is so noted in the telephone directory, newspapers and on the city map. The city owned park in this area is also called Lighthouse Point Park.

Oyster Point, so called on the chart, is now known as City Point. It is so listed in the telephone directory, newspapers and on the city map.

The section now known as Savin Rock includes all the area south of Thomas Street and as far west as Bradley Point in the Town of West Haven. The name formerly applied to the rock area as shown on the old charts.

New Names

The prominent point just west of Savin Rock is locally known as Bradley Point.

The stream just west of Bradley Point is known as Cove River and is so called by local inhabitants and marked on signs along the highway.

COMPARISONS WITH OTHER SURVEYS

Junctions

This sheet matches the adjoining sheets on the north, east and west with no differences and all junctions are satisfactory. (*sheet on north discarded*)

Changes

Discrepancies from chart #218 are apparently only those due to changes in datum and artificial and natural changes in detail.

In comparing this sheet with chart #218 and other old charts, it will be noted that practically all marshy areas have been dug over with drainage ditches and in some cases the courses of minor streams changed. Also large areas of marsh land have been reclaimed which changes the shore line considerably.

Photostat copies of topographic survey #3051 and 3051(a) dated 1910, and chart #218 dated 1935, were used as a basis of comparison. The noted differences are discussed below.

The high water line at Prospect Beach, at the west end of the sheet, agrees closely with topographic survey #3051. The only changes are the addition of several groins or jetties.

The high water line at the mouth of Cove River differs from topographic sheet #3051. This is due to the building of a stone break-water at the mouth of this river and improvements to the beach to the west of this area.

In the area about Bradley Point, the tip of this point has a different shape from that shown on topographic survey #3051. The pictorial representation as shown on single lens photograph V114 very clearly shows that the shape of the point as shown on this compilation is correct. A reinspection in the field confirms the compilation.

The shore front along Savin Rock has been improved and changed considerably. Numerous buildings have been built and replaced and several piers have been destroyed by fire and harbor ice. Only a few of these have been rebuilt at this date.

The shore line about Sandy Point has changed considerably and appears different in shape from topographic survey #3051. The point is no longer joined to the mainland at high water which is probably due to harbor ice being washed out of the harbor. Storm tides have probably been instrumental in changing the shape and position of Sandy Point.

From a point just north of Sandy Point, north to the mouth of West River, the only changes that have occurred are the additional docks and wharves.

The shore line on both banks of West River have changed considerably. Large areas on both sides of the river have been hydraulically filled. North of the Boston Post Road (Orange Avenue), large marshy areas along the West River have been filled in. A lagoon has been formed along the east side of the river and several tributaries of this stream have been filled in. This area will be developed by the city as a park.

The high water line on the west side of City Point differs considerably from topographic survey #3051. The marshy area has been used as a dump and the shore line has been built out considerably.

The marshy area just north of this locality has also been filled in and developed as a city play ground.

The southeast shore of City Point differs only slightly from topographic survey #3051. Several docks have been destroyed in this area and some of the piles still remain.

Note that the watch house shown on chart #218, east of City Point on the tip of the shoal known as Shag Bank, is no longer in existence. The house has been destroyed but the piles still remain. This house was formerly used as a triangulation station and called "North Watch House, 1873".

The high water line of the east shore of City Point differs considerably from topographic survey #3051. The shore line has been built out and developed by the N. Y., N. H. & H. R. R. and several industrial concerns.

From a point about Long Wharf to the Tomlinson Bridge, the compilation differs somewhat from topographic survey #3051. The shore front along this area has been built out and developed by various industrial concerns.

The banks of both the Quinnipiac River and the Mill River have been improved with buildings and docks to accomodate tankers, barges and other craft. The island occupied by the power plant of the United Illuminating Co. in the Mill River, has been enlarged and improved.

The east shore of New Haven Harbor from a point on the east end of Tomlinson Bridge, south to triangulation station "Coke" varies considerably from topographic survey #3051. This area has been filled in and developed by several large companies, the largest of which is the Koppers Coke Company.

Note that the following inaccuracies exist on chart #218: The basin just north of the Koppers Coke Company and the stream just south of triangulation station "Coke" are not shown on the above mentioned chart.

From a point just south of triangulation station "Coke" to triangulation station "Old Tower", the compilation agrees rather closely with topographic survey #3051. Note that the piers as shown on chart #218, just ~~west~~^{north} of Lighthouse Point, no longer exist.

The high water line between triangulation station "Old Tower" and Morris Creek differs slightly from topographic survey #3051. This is due to the building of a sea wall on the west side of Morris Creek and the building out of the beach.

From a point about Morris Creek to Caroline Creek, the compilation agrees closely with topographic survey #3051(a) with the following exceptions: The pictorial representation of Morgan Point as shown on photograph M166 (C print) very clearly shows that the shore line as shown on the compilation is correct. Several sea walls have been built about this point and also further east. Reinspection in the field confirms the compilation.

The area about the mouth of Caroline Creek does not agree with topographic survey #3051(a). Topographic survey #3051(a) shows the stream discharging directly east of the point and into the sound. The photographs (photograph M165 C print) very clearly show the stream discharging directly south into the sound. This change may probably be due to storm tides. A reinspection in the field confirms the compilation.

The position of the streets on this compilation was compared with those on topographic survey #3051 and it was found that these streets compared favorably. However it was noted that many new streets have been cut through and also that many of the streets to the west of triangulation station "N.Y., N.H. & H.R.R. Steam Plant, West Stack" no longer exist. This entire area was purchased by the N. Y., N. H. & H. R. R. a number of years ago, a new railroad station built and the railroad yards enlarged. Chart #218 does not show the new street layout.

U. S. E. Harbor Survey *see also P. 10*

A comparison of U. S. E. stations was made and are as listed on the following list. *Source of descriptions and positions of U. S. E. stations were U. S. E. blue prints as filed in this office under nos. 21812, 4, 5.*

The grid shown on this sheet is based on using U. S. E. #1 as the origin and is shown at one thousand yard intervals. No information could be obtained from the U. S. Engineers Office at Providence, R. I. as to what interval to use and it was thought best to show the grid at the interval as noted above.

<u>U. S. E. Station</u>	<u>Coordinates in Feet USE</u>	<u>Coordinates in Feet-Radial Plot</u>	<u>Comparison in Meters</u>	<u>Remarks</u>
#2	N 4560.71 W 0.43			Lost

May 25, 1939

MEMORANDUM regarding U. S. Engineers stations

Filed as part of descriptive report, T-5268, on May 24, 1939.

The review of T-5268 indicates that the coordinate positions as furnished by U. S. Engineers blue prints 21813, 14, and 15 and as listed on pages 14 to 17 of this report are somewhat more accurate than the radial plot positions and should be used in preference to the radial plot positions. The descriptions for these stations are given on blue prints Nos. 21813, 14 and 15 and also on cards filed in the descriptive report envelope in the Air Photo Unit.

T-5268 was entirely recompiled in 1939 and the new compilation filed to replace the original T-5268. See the review at the back of this report.

The Engineers stations were not shown on the new compilation as they seemed unnecessary because of the abundance of triangulation in this area.

The Form 524 descriptions originally submitted for the Engineers stations have been removed from the topographic stations file and filed in the report envelope, T-5268, in the Air Photo Unit.

A number of natural objects such as house gables, flagstaffs, and pier corners, shown as topographic stations on the original T-5268, and described on Form 524 are not shown on the recompilation of T-5268. The card descriptions have been removed from the topographic station files and filed in the report envelope, T-5268, in the Air Photo Unit.

B.G. Jones
5/24/39

U. S. E. Station	Coordinates in Feet USE	Coordinates in Feet Radial Plot	Comparison in Meters	Remarks
#3	N 9680.33 E 645.43	N 9676 E 645	-1.3 -0.1	
#5	N 10814.75 E 2617.23	N 10814 E 2626	-0.2 +2.6	
#6	N 11291.78 E 3579.83			Lost
#7	N 11332.35 E 4091.60	N 11330 E 4085	-0.7 -2.0	
#8	N 13902.28 E 5007.39			Lost
#9	N 18344.38 E 4154.28	N 18345 E 4152	-0.2 -0.7	
#10	N 17893.82 E 4442.33			Lost
#11	N 17532.32 E 4948.49			Lost
#12	N 16470.35 E 5040.77	N 16463 E 5042	-2.2 +0.4	
#13	N 15565.42 E 4992.47	N 15566 E 4990	+0.2 -0.8	
#14	N 15348.12 E 4863.51	N 15350 E 4863	+0.6 -0.2	
#15	N 15138.61 E 4704.19	N 15131 E 4700	-2.3 -1.3	
#16	N 14779.89 E 4669.13			Lost
#17	N 14480.24 E. 4648.42			Lost
#18	N 14108.73 E 4719.05	N 14112 E 4716	+1.0 -0.9	
#19	N 11676.21 E 3389.99			Lost
#20	N 11921.41 E 1961.37	N 11928 E 1955	+2.0 -1.9	
#21	N 11149.19 E 939.74			Lost

U.S.E. Station	Coordinates in Feet USE	Coordinates in Feet Radial Plot	Comparison in Meters	Remarks
#22	N 12076.09 E 120.23	N 12079 E 117	+0.9 -1.0	
#23				Coordinates not clear on USE map <i>Not shown on compilation</i>
#24	N 13817.85 E 101.91			Not spotted on photos or shown on <i>compilation</i>
#25	N 13865.19 W 26.66	N 13873 W 31	+2.4 +1.3	
#26	N 14442.51 E 288.74	N 14448 E 297	+1.7 +2.5	
#27	N 14662.24 W 505.84	N 14669 W 504	+2.0 -0.6	
#28	N 15187.14 W 598.55	N 15179 W 597	-2.5 -0.5	
#29	N 13990.93 W 665.46			Lost
#30	N 14463.02 W 491.27			Lost
#31	N 13855.54 W 256.42	N 13856 W 262	+0.1 +1.7	
#32	N 13026.47 W 277.50			Lost
#33	N 13754.69 W 575.04	N 13751 W 569	-1.1 -1.8	
#34	N 13317.26 W 800.40	N 13318 W 794	+0.2 -2.0	
#35	N 12772.49 W 721.73			Lost
#36	N 12433.98 W 252.85			Lost
#37	N 12069.93 W 189.48	N 12062 W 190	-2.4 +0.2	
#39	N 9569.59 W 1435.45			Lost
#40	N 9634.65 W 2114.68	N 9632 W 2116	-0.8 +0.4	

U. S. E. Stations	Coordinates in Feet USE	Coordinates in Feet Radial Plot	Comparison in Meters	Remarks
#41	N 9425.94 W 2464.92	N 9423 W 2465	-0.9 -0.0	
#42	N 10260.89 W 3204.25	N 10260 W 3207	-0.3 +0.8	<i>difference of 10m. in picking on various office photos.</i>
#43	N 10611.82 W 3507.96	N 10611 W 3511	-0.2 +0.9	
#44	N 8132.61 W 2646.60	N 8125 W 2644	-2.3 -0.8	
#45	N 9257.19 W 3589.73			Lost
#46	N 9434.29 W 4885.09	N 9432 W 4888	-0.7 +0.9	<i>this station rejected on compilation and Form 524 discarded. Position disagrees 13m. with detail on compilation and description. Not located in field on photos.</i>
#47	N 7120.22 W 6461.50	N 7121 W 6463	+0.2 +0.5	
#48	N 4497.66 W 5420.85	N 4497 W 5425	-0.2 +1.3	<i>Position on compilation and Form 524 actually U.S.E. location. Located on photos in field 10m. in error.</i>
#49	N 4000.06 W 6680.92			Lost
#50	N 3804.48 W 7283.05	N 3804 W 7288	-0.1 +1.5	
#51	N 4935.54 W 8742.18	N 4936 W 8746	+0.1 +1.2	
#52	N 6104.88 W 9201.89	N 6095 W 9207	-3.0 +1.6	
#53	N 6055.26 W 9752.10	N 6050 W 9753	-1.6 +0.3	
#54	N 3955.04 W 9171.79	N 3926 W 9176		This point was dif- ficult to pick and was plotted from USE coordinates.
#55	N 4136.38 W 9094.07	N 4136 W 9093	-0.1 -0.3	
#56	N 3606.46 W 9063.99	N 3601 W 9072	-1.7 +2.4	
#57	N 2970.19 W 9012.28	N 2958 W 9005	-3.7 -2.2	

U. S. E. Station	Coordinates in Feet USE	Coordinates in Feet Radial Plot	Comparison in Meters	Remarks
#58	N 2381.59 W 8453.40			Lost
#59	S 303.17 W 7462.23	S 299 W 7454	-1.3 -2.5	

The positions of the following U. S. E. stations were determined by triangulation:

U. S. E. Station	Coordinates in Feet USE	Coordinates From Triangulation in Feet	Comparison in Meters	
#1	Origin			
#4	N 9815.42 E 482.17	N 9816.1 E 482.6	+0.2 +0.1	note close agreement of U.S.E. location to triangulation, and differences up to 3.7 m. with radial plot. I indicate U.S.E. location stronger than radial plot location.
#38	N 10298.92 W 133.14	N 10299.4 W 132.2	+0.2 -0.3	
#60	S 831.25 W 4865.62	S 831.7 W 4866.4	+0.1 +0.2	

From the above it may be seen that the coordinates (U.S.E.) of these stations check very well with the radial plot. ~~The radial plot position is shown on compilation and listed on form 567. From the number of errors found in the radial plot at this compilation and other factors entering into the location and scaling of these points, the compilation is believed to be more accurate than the radial plot location is better than.~~

Changes in Navigational Features

The following detail now shown on the charts should be removed: ~~the radial plot loc -~~

The pier as shown at Morgan Point on chart #218 does not exist. ~~the sands from 524 have not been changed however.~~

The two piers shown at Lighthouse Point, in the vicinity of triangulation station "Old Tower", do not exist. The most southerly of these two piers appear on the photographs (photograph V77-880D-8) but it was demolished and the piles removed soon after the photographs were taken.

The long pier just east of Wilcox's Long Pier in West Haven no longer exists and does not show on the photographs.

The first pier east of hydrographic station "Bat" in West Haven, and shown on photograph V111-880C-8, was destroyed by ice, but has since been rebuilt to about one half its original length and should be shown thus on the chart.

Landmarks. The list of landmarks on chart #218 is satisfactory and none should be removed. A list of landmarks in addition to those already shown on chart #218 is hereby submitted on form 567.

RECOMMENDATIONS FOR FUTURE SURVEYS

Error of Compilation

The compilation is believed to have a probable error of four meters in well defined detail of importance for charting. The area adjacent to the northwest corner of the sheet and also the area adjacent to the north central portion is believed to have a probable error of six meters as these portions fall on the outer extremities of the wing prints. Likewise the area in the vicinity of a point just east of Fort Hale Park is believed to have a probable error of six meters for the same reason. *See review for probable error in the corrected & retained portion of this compilation. The following errors were found in various portions of this compilation & received from the field: 10 m. in shoreline detail, 15 m. in location of some radial plotted H&T stations, 25 m. in some streets.*

Work Incomplete

The low water line is not shown on this sheet as no inspection was made for this purpose. The photographs were taken at about high water. (except single lens flight V73-V78 (8500-8))

To the best of my knowledge and belief this sheet is complete in all detail of importance for charting purposes within the accuracy stated above and that no additional surveys are required.

Respectfully submitted,

S. Lebowsky

S. Lebowsky,
Draftsman, U. S. C. & G. S.

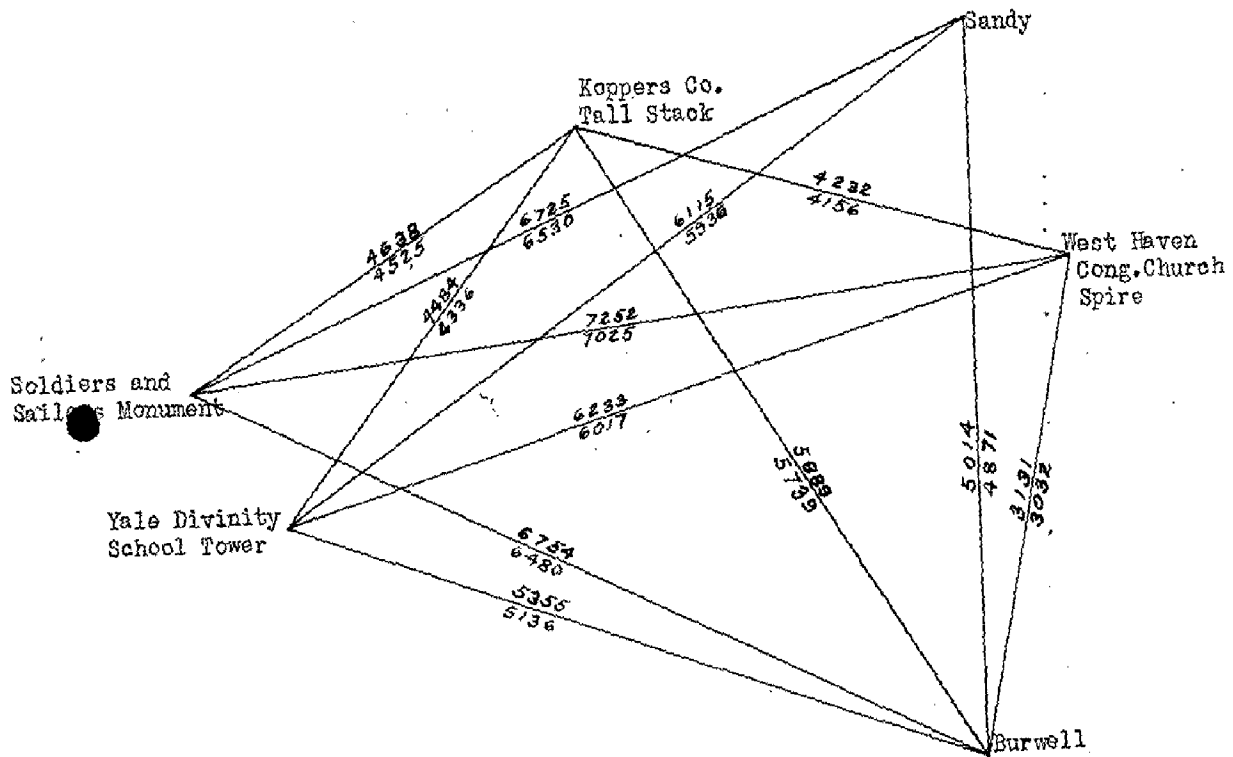
Assisted by:

Charles More

Charles More,
Surveyor, U. S. C. & G. S.

*Notes in red by T. R. Price Jr.
upon review Sept. 14, 1937*

SCALE FACTOR DIAGRAM



NOTE: This diagram is not to scale.

SCALE FACTOR COMPUTATIONS

	<u>Measured</u>	<u>Computed</u>	<u>Factor</u>
Soldiers and Sailors Monument			
To Sandy	6530	6725	0.971
To West Haven Cong. Church Spire	7025	7252	0.969
To Koppers Co., Tall Stack	4525	4638	0.976
Koppers Co., Tall Stack			
To West Haven Cong. Church Spire	4156	4232	0.982
To Burwell	5739	5889	0.974
To Yale Divinity School Tower	4336	4484	0.967
Burwell			
To Soldiers and Sailors Monument	6480	6754	0.960
To Sandy	4871	5014	0.971
To Yale Divinity School Tower	5136	5355	0.959
Sandy			
To Yale Divinity School Tower	5936	6115	0.970
West Haven Cong. Church Spire			
To Yale Divinity School Tower	6017	6233	0.965
To Burwell	3032	3131	0.968

Average Factor 0.97

Scale Factor Used 0.95

STATISTICS

- | | |
|--|---------------------------|
| 1. Area of land inked | 18.9 Square Statute Miles |
| 2. Length of shore line (more than
200 meters from nearest opposite
shore) | 17.1 Statute Miles |
| 3. Length of rivers and sloughs
(less than 200 meters wide) | 21.5 Statute Miles |

Scaled by: S. Lebowsky

Checked by: L. E. Marsh

REVIEW OF AIR PHOTO COMPILATION NO. 5268

Chief of Party: *G. C. Mattison*Compiled by: *B. Lebauskay*Project: *H. T. 150*Instructions dated: *8/10/33, 9/9/33.*

- ✓ 1. The charts of this area have been examined and topographic information necessary to bring the charts up to date is shown on this compilation. (Par. 16a, b, c, d, e, g and i; 26; and 64)
- ✓ 2. Change in position, or non-existence of wharfs, lights, and other topographic detail of particular importance to navigation which affect the chart, is discussed in the descriptive report. (Par. 26; and 66 g, n)
- ✓ 3. Ground surveys by ~~plane table, sextant, or theodolite~~ have been used to supplement the photographic plot where necessary to obtain complete information, and all such surveys are discussed in the descriptive report. (Par. 65; and 66 d, e)
- ✓ 4. Blue-prints and maps from other sources which were transmitted by the field party contain sufficient control for their application to the charts. (Par. 28)
Only control for blueprints of New Haven that can be obtained, is from the layout of the street system.
- ✓ 5. Differences between this compilation and contemporary plane table and hydrographic surveys have been examined and rectified in the field before forwarding the compilations to the office and are discussed in the descriptive report.
no contemporary topo or hydro surveys
- ✓ 6. The control and adjustment of the photo plot are discussed in the descriptive report. Unusual or large adjustments are discussed in detail and limits of the area affected are stated. (Par. 12b; 44; and 66 c, h, i)
- ✓ 7. High water line on marshy and ~~mangrove~~ coast is clear and adequate for chart compilation. (Par. 16a, 43, and 44)

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Refer also to the pamphlet "Notes on the Compilation of Planimetric Line Maps from Five Lens Air Photographs."

8. The representation of low water lines, reefs, ~~coral reefs~~ and rocks, and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41) *only that approximate low-water line which was indicated in photographs is shown on the sheet*

9. Recoverable objects have been located and described on Form 524 in accordance with circular 30, 1933, circular letter of March 3, 1933, and circular 31, 1934. (Par. 29, 30, and 57)

10. A list of landmarks was furnished on Form 567 and instructions in the Director's letter of July 16, 1934, Landmarks for Charts, complied with. (Par. 16d, e; and 60)

11. All bridges shown on the compilation ~~are accompanied by a note stating whether fixed or draw, clearance, and width of draw if a draw bridge. Additional information of importance to navigation is given in the descriptive report.~~ (Par. 18e)

See U.S.I.E. Report

12. Geographic names are shown on the overlay tracing. The accepted local usage of new names has been determined and they are listed in the report, together with a general statement as to source of information and a specific statement when advisable. Complete discussion of place names differing from the charts and from the U. S. G. S. Quadrangles is given in the descriptive report, together with reasons for recommendations made. (Par. 64, and 66k)

13. The geographic datum of the compilation is *N.A. - 1927* and the reference station is correctly noted.

14. Junctions with adjoining compilations have been examined and are in agreement. (Par. 66j)

15. The drafting is satisfactory and particular attention has been given the following:

1. Standard symbols authorized by the Board of Surveys and Maps have been used throughout except as noted in the report.

2. The degrees and minutes of Latitude and Longitude are correctly marked.

- ✓✓✓ 3. All station points are exactly marked by fine black dots.
- ✓ 4. Closely spaced lines are drawn sharp and clear for printing. *A few are too close together*
- ✓ 5. Topographic symbols for similar features are of uniform weight.
- ✓ 6. All drawing has been retouched where partially rubbed off.
- ✓ 7. Buildings are drawn with clear straight lines and square corners where such is the case on the ground.
- (Par. 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 48)

✓ 16. No additional surveying is recommended at this time.

✓ 17. Remarks:

✓ 18. Examined and approved; *January 2, 1935*
May 18 1935

R. M. Atkinson
Chief of Party

✓ 19. Remarks after review in office:
Only the portions of the original compilation which are of particular importance for chart revision should be reproduced.

Reviewed in office by: *T. M. Price*
Sept. 14, 1937

B. J. Jones

Examined and approved:

E. K. Green
Chief, Section of Field Records
L. O. Volbert
Chief, Division of Charts

Fred. L. Peacock
Chief, Section of Field Work
Shude
Chief, Division of Hydrography
and Topography.