6014

6014

Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. Patton, *Director*

State: New York.

DESCRIPTIVE REPORT

Topographic ~~Hydrographic~~ *Sheet No.* F 6014

LOCALITY

Great South Bay L.I.

Forge River to Howell Point.

1933

CHIEF OF PARTY

Raymond P. Eyman.

U. S. GOVERNMENT PRINTING OFFICE: 1933

Description Report
to
Accompany Topographic Sheet "F"

(a) General Description.

Sheet "F" extends from Howel Point on Great South Bay eastward into Moriches Bay, about two miles beyond the mouth of Forge River, and the work was done on a scale of 1:20000.

Instructions for this work were dated February 25, 1933.

The ocean shore line of this section is composed of sand beach, inland from which are numerous sand dunes, partly covered with grass, some of which are forty feet high. There is an absence of prominent objects along this section, there being only occasional shacks and the Coast Guard stations, which are shown.

The terrain on the north side of the bay is heavily wooded between Carmans River and Forge River. In a few places the wood give way into marshy areas with an occasional narrow sand beach. To the eastward of Forge River the area is covered with estates and summer hotels with sparser growth of trees. The area between Carmans River and Beaverdam Creek is wooded and marshy but to the westward of Beaverdam Creek, fewer trees and more houses and estates are to be found terminating in the town of Bellport.

The Bayside Fire Island is marshy in most places, with low brush; to the eastward of the Smith Point bridge there is a pronounced vertical bank at the high water line which makes the high and low water lines practically the same in this section.

(b) Landmarks.

Prominent landmarks in this area are very scarce, except for the Coast Guard stations along the outer beach.

Several beacons and day marks have been established by the town of Brookhaven thru Bellport, Narrow, and Moriches Bay. These beacons are constructed of four wooden legs with square platform at top which holds the light. These beacons are of a temporary nature only, and are removed in the fall and reset in the spring.

Several other objects of fair prominence are:
Hotel Chy., east of mouth of creek next east ~~xxxxxx~~ Senix Creek.

Windmill Masury Point.

Ornamental Towers on each side of mouth of creek next, east of Pattersquash Creek.

Church Spire, center Moriches. "Mor"

W. Chy. Hotel just to south of old Smith Point bridge.

Flagtower in an estate S. E. of mouth of Carmans River. "Eat"

Wh. Church Spire, Bellport. "Bel"

Mast, a very prominent large white mast on Howell's Point.

The bridge across the bay from east of Smith Point to Fire Island is now in ruins. A large permanent opening permits traffic thru the bridge, but some structure remains and several piles with tops about three or four feet beneath the surface lie near the fairway.

(c) Control.

The control for this survey consisted of numerous triangulation stations, main, supplemental, and intersection.

(d) Closing errors.

There were practically no traverses run on this sheet, except up a few creeks, and almost all set up positions could be checked by resection or a 3 point fix making further adjustment unnecessary.

(e) Methods.

The usual plane table methods were applied. Signals were located by cuts and other objects and shore line by either cuts or direct rod readings. The outer shore line was run by skip station method with 3 point fix and resection at at least every third set up.

(f) Juncture with adjoining work.

This sheet joins sheet "E" of this seasons work on the west and with Ratti's present seasons work on the east.

On the west a tie in was made at triangulation stations How and Flat and on the east with Davids and Tut. The outside beach highwater line was found to differ from that on sheet "E" and a further investigation showed that the points selected on sheet "F" were too far seaward, as a very temporary high-water line had been run in; this part was re-run and found, then, to join satisfactorily.

(g) New names.

Information from local sources give the following two names as being well established; Beaverdam Creek is known as Fire Place Creek and the narrow water-connecting Bellport and Moriches Bay is known as Narrow Bay.

(h) Plane table positions.

A list of plane table positions accompanies this report. In a few cases

it will be noted that some signals have two names, this is due to the fact that they were used both by this party and by Ratti's party without knowledge at this time as to the name the other party had given this signal.

Respectfully submitted,

Wm H. Lea)
Albert M. Weber) Topographers

Raymond P. Eyman
Chief of Party.

PLANE TABLE POSITIONS Topographic Sheet "F"

Object and Desoription.		Latitude		Meters D.M.	Longitude		Meters D.P.
	Mast			(988)			(364)
SAYERS		40°	44'	863	72°	56'	1044
	Red band			(414)			(566)
TEL	Tel.Pole	40	44	1437	72	56	842
	Red flag			(170)			(947)
RING	on dock	40	44	1681	72	56	461
	Flagpole			(1624)			(1393)
	B.B.Y.C.	40	45	227	72	56	14
	Triangulation			(?)			
	Sta. BEL	40	45		72	56	
	Small			(1121)			(260)
KEN	Shack	40	45	732	72	55	1148
	White flag on			(882)			(615)
DARK	on boat house	40	45	969	72	55	793
	Triangulation						
	Station "BAY"	40	45		72	54	
	Red			(1034)			(428)
MAC	Banner	40	45	817	72	54	980
	Red			(996)			(866)
LON	banner	40	45	855	72	54	542
	Red			(874)			(1375)
ROSE	banner	40	45	977	72	54	33
	Red			(739)			(1073)
	beacon	40	44	1112	72	55	335
	Red			(160)			(913)
	beacon	40	44	1691	72	54	495
	Red			(1742)			(573)
[illegible]	beacon	40	45	109	72	53	835
	Red			(569)			(578)
CAR	banner	40	45	1282	72	53	830
	Red & White			(2)			(570)
RAW	banner	40	45	1849	72	53	838
	Red			(1591)			(313)
SAG	flag	40	46	260	72	53	1094
	Mast			(1350)			(251)
SLANT		40	46	501	72	53	1156

Object and description.		Latitude		Meters D.N.	Longitude		Meters D.P.
DIT	Red and white banner	40°	46'	(1300) 551	72°	53'	(328) 1079
JAL	Summer house	40	46	(1057) 794	72	53	(275) 1132
MED	Red Flag	40	46	(920) 931	72	53	(372) 1035
ARM	Red flag	40	46	(333) 1518	72	53	(499) 908
TAR	Stack West end house	40	46	(386) 1465	72	53	(682) 725
DOL	White Banner red pole	40	46	(522) 1329	72	53	(607) 800
WET	Red flag	40	46	(627) 1224	72	53	(458) 949
ELI	Black & white banner	40	46	(1056) 795	72	53	(355) 1052
HAM	ditto	40	46	(1522) 329	72	53	(437) 970
MAR	ditto Red & White	40	45	(60) 1791	72	53	(844) 563
MAN	Red banner	40	45	(335) 1416	72	53	(940) 467
DUCK	Duck blind	40	45	(649) 1202	72	53	(1146) 261
	Triangulation station EAT	40	45		72	52	
	Stack	40	45	(1356) & 495	72	52	(1390) 17
TURN	Red beacon	40	44	(101) 1750	72	53	(1007) 401
CROSS	Cross	40	44	(443) 1408	72	53	(1137) 271
FEG	White banner	40	44	(871) 980	72	52	(37) 1371
SIL	Stack, yellow shack	40	44	(940) 911	72	52	(253) 1155

PLANE TABLE POSITIONS Topographic Sheet "F"

Object and description.		Latitude		Meters D.M.	Longitude		Meters D.P.
	Black			(1016)			(1307)
THREE	beacon	40°	44'	835	72°	53'	101
	Cross			(1061)			(1230)
ROG		40	44	790	72	53	178
	Cross			(1380)			(168)
		40	44	471	72	52	1245
	Triangulation station SMITH PT	40	44				
	Red and Black			(1142)			(821)
ROB	banner	40	44	709	72	52	587
	Duck			(936)			(1347)
DUC	blind	40	44	915	72	52	61
	ditto			(808)			(1370)
		40	44	1043	72	52	(38)
	Red & white			(557)			(181)
RAM	banner	40	44	1294	72	51	1227
	White			(767)			(421)
MIT	banner	40	44	1084	72	51	987
	ditto			(626)			(1095)
ROT		40	44	1225	72	51	313
	Cross			(997)			(106)
		40	44	854	72	51	1302
	ditto			(970)			(160)
		40	44	881	72	51	1248
	ditto			(939)			(230)
		40	44	912	72	51	1178
	Black			(895)			(141)
FIT	beacon	40	44	956	72	51	1267
	Red			(920)			(631)
PAL	beacon	40	44	931	72	51	777
	Cross			(897)			(1070)
		40	44	954	72	51	338
	Arrow			(767)			(1194)
		40	44	1064	72	51	214
	Red			(820)			(103)
ROL	beacon	40	44	1031	72	50	1305

Object and description.	Latitude	Meters D.M.	Longitude	Meters D.P.
Wh.banner,W. end of island	40° 44'	(645) 1205	72° 50'	(640) 768
Wh.banner, E end of island	40 44	(181) 1670	72 50	(1212) 196
House Chimney	40 45	(1150) 701	72 50	(281) 1127
White banner	40 45	(1638) 213	72 50	(939) 469
Red beacon	40 45	(1681) 170	72 50	(1156) 252
black beacon	40 45	(1487) 364	72 50	(1278) 130
Triangulation station NAP	40 45		72 50	
Summer house	40 45	(770) 1181	72 50	(1246) 162
Tower W	40 45	(1011) 840	72 50	(1344) 64
Tower E	40 45	(998) 853	72 50	(1407) 1
Black Beacon	40 45	(1100) 751	72 49	(96) 1312
Cross	40 45	(1184) 667	72 49	(79) 1329
Cross	40 45	(1161) 690	72 49	(162) 1246
Cross	40 45	(1167) 684	72 49	(263) 1145
White banner	40 45	(996) 855	72 49	(990) 418
ditto	40 45	(897) 954	72 49	(1270) 138
ditto	40 45	(593) 1258	72 48	(121) 1287
Red beacon	40 45	(1418) 433	72 49	(963) 445

Object and description		Latitude		Meters D.M.	Longitude		Meters D.P.
ERG	Red beacon	40°	45'	(562) 1289	72°	48'	(630) 778
FORGE	Triangulation station FORGE	40	45		72	48	
FUN	Cross	40	45	(72) 1779	72	48	(908) 500
ROW	Black arrow	40	46	(1842) 9	72	48	(792) 616
ROSS	Cross	40	46	(1590) 261	72	48	(991) 416
DON	Red beacon	40	46	(1263) 588	72	48	(1033) 374
FAY	White banner	40	46	(1397) 454	72	48	(391) 1016
CRO	Old F.P.	40	46	(953) 898	72	49	(1287) 120
BAR	Red banner	40	46	(709) 1142	72	48	(158) 1249
PEN	White banner	40	46	(498) 1353	72	49	(1355) 52
CAP	Flag pole	40	46	(581) 1270	72	49	(953) 454
ALE	Red banner	40	46	(27) 1824	72	49	(1058) 349
GEE	White banner	40	47	(1453) 398	72	49	(492) 915
LUT	Red & White banner	40	47	(1149) 702	72	49	(430) 977
BUT	Red banner	40	47	(648) 1203	72	49	(128) 1279
SEE	White banner	40	47	(528) 1323	72	49	(109) 1298
BEE	Red banner	40	47	(50) 1801	72	49	(144) 1263
CAT	Red banner	40	48	(1839) 12	72	49	(231) 1175

Object and description.		Latitude		Meters D.M.	Longitude		Meters D.P.	
FLY	Red banner	40°	47'	(534) 1317	72°	49'	(432) 975	6'
JO	White banner	40	47	(899) 952	72	49	(581) 826	8'
YOU	Red banner	40	47	(1573) 278	72	49	(1098) 309	4'
ADE	White banner	40	47	(1727) 124	72	49	(1323) 84	4'
	So.Gable Barn	40	46	(227) 1624	72	48	(310) 1097	
TIP	White banner	40	46	(715) 1136	72	48	(729) 678	6'
NEST	Crow's nest	40	46	(358) 1493	72	48	(818) 589	25'
BAT	Bath house	40	46	(107) 1744	72	48	(895) 512	8'
	Wind mill	40	47	(1517) 334	72	48	(900) 507	40'
MAP	Flag-pole	40	47	(1423) 428	72	48	(1003) 404	20'
BIL	White banner	40	47	(1244) 607	72	48	(1109) 298	3'
STAN	Davit	40	47	(1131) 720	72	48	(1135) 272	8'
BIRD	Bird house	40	47	(840) 1011	72	48	(1388) 19	15'
STIK	Flag pole	40	47	(563) 1288	72	47	(94) 1313	15'
	Sun dial	40	47	(564) 1287	72	47	(120) 1287	4'
SUN	Red Summer house	40	47	(981) 870	72	48	(1346) 61	12'
RICK	Derrick	40	47	(1345) 506	72	48	(1183) 224	15'
ARM	Flag-pole	40	47	(1485) 366	72	48	(1199) 208	20'

PLANE TABLE POSITIONS Topographic Sheet "F"

Object and description.		Latitude		Meters D.M.	Longitude		Meters D.P.	
	Summer			(1749)			(1269)	12'
SEN	house	40°	47'	102	72°	48'	138	
	White			(1725)			(64)	
NIX	banner	40	47	126	72	47	1343	3'
	Flag-			(1589)			(343)	
	pole	40	47	262	72	47	1164	
	House			(1569)			(294)	
	Chimney	40	47	282	72	47	1113	25'
	White			(1645)			(370)	
	banner	40	47	206	72	47	1037	3'
	South Gable			(1821)			(1012)	35'
	stucco house	40	47	30	72	47	395	
	White			(07)			(288)	
	banner	40	46	1844	72	46	1119	3'
	Small white			(235)			(89)	
ALL	banner	40	45	1616	72	46	1318	3'
	White			(407)			(481)	
BAN	banner	40	45	1444	72	47	926	3'
	White			(1032)			(919)	
	banner	40	45	819	72	48	488	3'
	ditto			(182)			(1217)	
		40	44	1669	72	50	191	4'
	ditto			(763)			(1237)	
		40	44	1088	72	50	171	4'
	ditto			(650)			(640)	
		40	44	1201	72	50	768	4'
	ditto			(1105)			(90)	
MAT		40	44	746	72	50	1318	4'
Lib	ditto			(1365)			(1244)	
LIT		40	44	486	72	52	164	12'
	W. Chimney			(1546)			(1273)	
HOT	Hotel	40	44	305	72	52	135	20'
	Red			(1774)			(926)	
	beacon	40	44	77	72	52	482	
	Red Chimney			(275)			(803)	
ED	on house	40	43	1576	72	52	605	12'

Object and description.		Latitude		Meters D.M.	Longitude		Meters D.P.	
MIC (or) GRAY	Chimney grey ho.	40°	43'	(546) 1305	72°	52'	(550) 858	10'
PUP	Black and white banner	40	43	(668) 1183	72	52	(271) 1137	4'
MEM	White signboard	40	43	(905) 946	72	53	(295) 1113	8'
OX	Chimney, red roof shack	40	43	(1027) 824	72	53	(232) 1176	9'
FLAP	Flagpole Old Inlet	40	43	(1203) 648	72	53	(387) 1021	15'
STO	Small, grey shack	40	43	(1158) 693	72	54	(1251) 157	7'
HALF	Red roofed shack	40	43	(1380) 471	72	54	(1338) 70	8'
/	White banner	40	43	(1566) 285	72	54	(910) 498	3'
NO	House chimney	40	42	(101) 1750	72	55	(627) 781	10'
	House chimney	40	42	(180) 1671	72	55	(584) 824	10'
	New Watch Tower	40	42	(557) 1294	72	55	(324) 1084	
LACK	White banner	40	44	(1591) 260	72	51	(1145) 263	3'
HEY	White banner	40	44	(703) 1148	72	49	(559) 849	4'
WET	White banner	40	44	(404) 1447	72 135	49	(1273) 4' 135	4'
	Bungalow	40	44	(219) 1632	72	48	(358) 1050	8'
	S.Gable Boathouse	40	44	(163) 1688	72	48	(514) 894	9'
ANN	Black banner	40	45	(1672) 179	72	47	(1402) 6	4'
	Coast Guard signal box	40	45	(1129) 722	72	46	(61) 1347	5'

PLANE TABLE POSITIONS Topographic Sheet "F"

Object and description.	Latitude	Meters D.M.	Longitude	Meters D.P.
LOW East Gable Hotel	40° 45'	(852) 999	72° 46'	(842) 566 20'
LOG	40 44	(174) 1677	72 53	(1378) 30
SIG	40 45	(275) 1576	72 47	(1249) 159
MIT	40 44	(196) 1655	72 50	(867) 541
Flagpole	40 47	(1363) 488	72 48	(1009) 398

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REVIEW OF TOPOGRAPHIC SURVEY No. 6014

Title (Par. 56) Great South Bay, L.I., Forge River to Howell Point, New York

Chief of Party R.P. Eyman Surveyed by W.H. Lea A.M. Weber Inked by J.C. Tison A.M. Weber

Ship Party No. 2 Proj. HT 132 Instructions dated Feb. 25, 1933 Surveyed in June-Aug. 1933

1. The survey and preparation for it conform to the requirements of the Topographic Manual. (Par. 7, 8, 9, 13, 16.) ✓

2. The character and scope of the survey satisfy the instructions. ✓

3. The control and closures of traverses were adequate. (Par. 12, 29.) ✓

4. The amount of vertical control that the Manual specifies for -contours-formlines- was accomplished. (Par. 18, 19, 20, 21, 22, 23.) None determined

5. The delineation of -contours-formlines- is satisfactory. (Par. 49, 50.) None shown

6. There is sufficient control on maps from other sources that were transmitted by the field party to enable their application to the charts. (Par. 28.) None submitted

7. High water line on marshy and mangrove coast is clear and adequate for chart compilation. (Par. 16a, 43, 44.) Shoreline of tributary streams not carried as far as desirable in some places. Aerophotos probably will supply this deficiency.

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.) ✓

9. Rocks and other important details shown on previous surveys and on the chart were verified. (Par. 25, 26, 27.) ✓

10. The span, draw and clearance of bridges are shown. (Par. 16c.) ✓

11. ~~Locations and elevations of summits are given. (Par. 19, 51.)~~

12. ~~The tree line was shown on mountains. (Par. 16g.)~~

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Use reverse side for extending remarks.

R-317

Note attached at the back of this report are copies of reviews of air photo compilations T 5053, T 5349, and T 5350, which discuss the discrepancies in location of topographic detail as shown on this planetable survey and on the compilations.

B.G. Jones.

13. The descriptive report covers all details listed in the Manual, in so far as they apply to this survey. (Par. 64, 65, 66, 67.) ✓

14. The descriptive report also contains additional information required in aero-topography relative to type of photographs, method of compilation and type of ground control.

15. No ~~The~~ descriptions of recoverable stations and references to shore line were accomplished on Form 524. (Par. 29, 30, 57, 67, except scaling of DMs and DPs, 68.) Listed in Desc. Rep. under list of topo stations.

16. No separate ~~A~~ list of landmarks for charts was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.) Landmarks described in Desc. Rep. - only one object (windmill ~~showing Pt.~~) is listed on Form 567 Letter file 707/1933

17. The magnetic meridian was shown and declination was checked. (Par. 17, 52.) Chart 578 shows about 5½° greater westerly variation.

18. The geographic datum of the sheet is North American 1927 and the reference station is correctly noted. (Par. 34.)

19. Junctions with contemporary surveys are adequate. ✓

20. Geographic names are shown on the sheet and are covered by the Descriptive report. (Par. 64, 66k.) ✓

21. The quality of the drafting is good. (Par. 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 45, 46, 47, 48, 49, 50.) ✓

22. No additional surveying is recommended. ✓

See offsheets Page. B.G.J.

23. The Chief of Party inspected and approved the sheet and the descriptive report. ~~after review by~~

24. Remarks: See let. to C. of Party - ~~Feb.~~ March 1, 1934 R

Reviewed in office by R. J. Christman Feb. 7, 1934

Examined and approved:

L. O. Colbert
Chief, Section of Field Records

J. S. Borden
Chief, Section of Field Work

W. W. Rappleye
Chief, Division of Charts

G. T. Rude
Chief, Division of Hyd. and Top.

~~See Review of Air Photo Compilation T 5049~~ R-317
~~for discussion of differences of location of objects on this sheet.~~ BGJ.

Form 567
Ed. Dec., 1929

DIVISION OF CHARTS. FILE NO._____

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

February 10, 1934.

DIRECTOR, U. S. COAST AND GEODETIC SURVEY:

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted.

Raymond P. Eyman
Chief of Party.

DESCRIPTION	POSITION				DATUM	METHOD OF DETERMINATION	CHARTS AFFECTED
	LATITUDE		LONGITUDE				
	° ′	D. M. METERS	° ′	D. P. METERS	N.A.'27		
House chimney	40-47	(1569) 282	72-47	(294) 1113		Scaled from typo.sh.	—
Windmill (Masury Pt.)	40-46	1781.8	72-48	883.3		triang.	✓
West Tower (MasticBeach) (1933)	40-45	841.8	72-50	64		"	
East Tower (MasticBeach) (1933)	40-45	852.6	72-50	00.8		"	
(MOR) Center Moriches Church Spire (1933)	40-48	20.9	72-47	554.8		"	
(HOT) West Chy Hotel	40-44	(1546) 305	72-52	(1273) 155		Scaled from Typo.sh.	
(BAT) Flagpole on tower (1933)	40-45	640.8	72-52	1364.2		triang.	—
(BEL) White Church Spire (1933)	40-45	1112.0	72-56	270.0		"	
Flagpole (Mast,Sayer's)	40-44	861.4	72-56	1036.9		"	✓
Prepared by - Perkins. From - Record of T. 6014. Checked by - Christman.							

A list of objects which are of sufficient prominence for use on the charts, together with a description of the same, must be furnished in a special report on this form, and a copy of such report must be attached by the Chief of Party to his descriptive report. The selection, determination, and description of these points are of primary importance.

The description of each object should be short, but such as will identify it; for example, standpipe, water tower, church spire, tank, tall stack, red chimney, radio mast, etc. Generally, flagstaffs and like objects are not sufficiently permanent to chart.

U. S. GOVERNMENT PRINTING OFFICE: 1931

REVIEW OF AIR PHOTO COMPILATION T-5053 (1933)

The differences in location of shoreline and signals between the photo compilation T-5053 and aluminum control sheets T-6014 (1933) and T-4763 (1933), as listed on pages 4,5 and 6 of the descriptive report, have been investigated in the office as follows:

Photo Compilation T-5053. The photographs for this compilation were forwarded to the office with the compilation.

There was sufficient triangulation on this sheet for an accurate plot and the descriptive report states on page 6 that the photographs were not badly tilted and that no difficult adjustments of the plot were required.

An additional check on the accuracy of the plot was obtained from the positions along the Long Island Railroad traverse as stated on page 8 of the descriptive report.

The accuracy of the spotting of these stations on the photographs has been investigated in the office and where there was indication that the difference in location may have been caused by erroneous identification of the points on the photos, that fact is mentioned in the following paragraphs.

The plotting of the triangulation stations on the photo compilation has been checked in the office.

The compilation is on a scale of 1:10,000 and the plane table work on 1:20,000.

Forge River Area

The descriptive report (page 2) for T-6014 does not state definitely where the work was done by traverse. However, the topography is such that the Forge River was evidently surveyed by a traverse either between triangulation stations "Forge" and "Masury Windmill" or "Bulkhead" or between three point fix positions near the entrance to the river. A few cuts visible on the plane table stations up the river were taken from a southeast direction.

Proceeding up the river along the west shore, the differences begin at station "Bar" and are in approximately the same direction in every case except that of stations "But" and "See". From station "Bar" up this side of the river, there is a difference in location of every station spotted on the photographs except for station "Ale". Stations "Cap", "Pen" and "Gee" were not spotted on the photographs. The shoreline differs generally in the same direction as the signals. Along the east shore of Forge River only station "Fly" was spotted on the photographs and this differs in the same general direction as the stations on the west shore.

The trouble along the Forge River may be due to starting the

plane table traverse from an erroneous three point fix position though there is no conclusive evidence to that effect as the descriptive report is not specific as to the method used.

Lieutenant Partington and Lieutenant Witherbee, both of whom worked in this vicinity in 1933, and who were recently in the office, state that this section of T-6014 from Forge River eastward along the north shore of Moriches Bay, was surveyed on T-6014 by Mr. Lea and that Mr. Lea had had no previous plane table experience and no engineering training prior to 1933 except on the triangulation party of Lieutenant Woodworth.

The shoreline difference in this area extends from the south limit of the photo sheet around Forge River and northeast nearly to Triangulation Station Bulkhead.

The air photo locations of both the shoreline and signals are considered the more accurate in this area and the differences affect the hydrography on H-5322. The Hydrographic Sheet H-5322 has already been plotted on the plane table shoreline and signals. See paragraph "Conclusion" below.

These stations with the exception of Station "Cro" are not recoverable and will not appear on the finished air photo sheet. The photo positions show on the celluloid sheet only.

Forge River Eastward

From Forge River eastward to Triangulation Station Davids there are large differences in location of both shoreline and signals.

This area is also shown on T-6014, scale 1:20,000, and the cause of the error in the plane table work has not been determined.

The photographs and the celluloid sheet have been inspected in the office and except in cases of questionable spotting of the objects on the photographs, the photo plot is evidently the more accurate. The positions of the signals between Triangulation Stations Bulkhead and Davids can be checked directly from one photograph as stated by Lieutenant Bolstad on page five of the descriptive report. This check has been applied in the office.

Windmill Latitude 40°-47.2', Longitude 72°-48.3'. This windmill was spotted on the photos by the field inspection party. It does not show under the stereoscope and the field spotting cannot be checked. However, in view of the dubious plane table work in this vicinity the difference in location does not seem to be sufficient reason to reject the field spotting. The photo position is accepted as correct and shown on the compilation. This station is not used on the Hydrographic Sheet H-5322.

"Sen", 40°-47.1', 72°-48.5'. There is no other house nearby

that could be confused with this summer house on the photographs. This large difference is either due to a blunder in a rod reading from Triangulation Station Bulkhead or the house shown on the photographs of May 12, 1933 was torn down and rebuilt in a different position prior to the plane table survey of July-August, 1933. This station is on H-5322. It does not appear on the printed compilation. See Paragraph "Conclusion" below.

"Nix", 40°-47.1'-72°-48'. This banner cannot be seen under the stereoscope but it was spotted on the photos by the Field Inspection Party. The difference is consistent with the difference in location of stations "Flagpole and Chimney", and the shoreline. The photo location is therefore considered correct. This station is on H-5322. It is not shown on the printed compilation.

"Flagpole, Chimney", 40°-47.2', 72°-47.8'. The air photo location of these stations and the shoreline are considered correct. The differences are not due to faulty spotting on the photographs. These stations do not appear on H-5322.

"South Gable Stucco House", 40°-47', 72°-47.2'. This house is indefinite on the photographs and the spotting of the south gable is liable to some error. The point spotted by the Field Inspection Party is noted as E. Gable. An error in spotting, however, would not likely bein the same direction as the difference with the plane table location. This station is not on H-5322 and since both the plane table location and air photo location are weak, it will not appear on the finished air photo sheet.

Vicinity of Tuthill Cove

"Spire" - Latitude 40°-48.1', Longitude 72°-45.9', shown on plane table sheet T-4763, scale 1:10,000. The cuts locating this station on the plane table sheet have been erased and the strength of that position cannot be determined. The air photo plot is well controlled and since there is no question as to the correctness of the spotting of the object on the photos, that position is considered correct. This station is not on the Hydrographic Sheet H-5322.

"Bum"- Latitude 40°-47', Longitude 72°-45.1' - T-4763. The spotting of this banner on the photos is questionable and the planetable position is accepted as correct. This station will not appear on the finished air photo sheet.

From Longitude 72°-47' eastward, the shoreline agrees very well except for differences at Triangulation Station "Radio" and along the west side of Tuthill Cove.

Conclusion: The hydrographic smooth sheet H-5322, scale 1:20,000 has already been plotted and inked using the plane table control. When chart 578 was compiled the topography was taken from this compilation and the soundings as shown on H-5322 adjusted slightly where necessary to hit the shoreline. None of these adjustments made on the chart com-

pilation were large and it is not considered necessary that the Hydrographic Sheet be replotted according to the photo location of the shoreline and signals discussed above. The large difference in location of Signal "Sen", 60 meters, has no considerable effect on the hydrography. The records have been searched and "Sen" was used only on positions 5 to 8, FF day, a line of 1 to 2 ft. soundings along the shore, and the direction of the fix was such as to move this line only some 20 to 30 meters parallel to the shore.

It is recommended that a copy of this report be attached to the descriptive reports for H-5322 and T-6014.

A note has been drawn on T-6014 in green referring to this compilation for positions of the stations mentioned above.

Names: Names furnished by the compiler have been accepted pending Mr. Bacon's approval. These new names Ely Creek, Areskond Creek, Poospatrick Creek, are not definitely reported as in local use but Bolstad in his reports for work in this area has been careful in his selection of names and it is recommended that these be accepted.

B. G. Jones.

Review of Air Photo Compilations T 6349 and T 6350 (1934)

Comparison with contemporary surveys: The area of these compilations is covered in part by plane table surveys T 6007 and T 6014, scale 1:20,000, 1933, and by hydrographic surveys 6367a and 6367b, 1933. The plane table surveys were executed in May to August, 1933, soon after the photographs for this compilation were taken.

Differences in location of topographic stations and of H. W. line between the compilation and the plane table surveys are listed on pages 4 to 7 of the preceding descriptive report. The differences are numerous and in some cases fairly large.

The compilation, scale 1:10,000, is a larger scale, more detailed survey than the plane table surveys. Examination of the photographs and the plot in this office shows that there was sufficient control for a good plot. Some of the photographs were tilted and some are not clear prints but these conditions should not account for large errors. The accuracy of location given on page 9 of the descriptive report is considered high. A more likely value is an accuracy of location of about 5 meters for intersected points and 5 to 10 meters for other detail. The spotting of the objects on the photographs has been inspected in making this review. All the topographic stations mentioned on pages 4 to 6 of the preceding descriptive report can be seen on the photographs or were referenced by ground measurements.

Plane table survey T 6007 was surveyed by A. M. Webber, who, it is understood, had had previous experience on Coast Surveys. Plane table survey 6014 was surveyed by W. H. Lee, who, it is understood, from Lieutenant Partington and Lieutenant Witherbee had had no previous plane table experience. The control for both plane table surveys was adequate and according to the reports, the traverse closures were negligible. However, on T 6014 the large holes pricked for the control points indicate careless plane table work. This is true to a much less extent on T 6007. Examination of the sheets indicates that errors of 8 to 10 meters can be expected for many of the located points, particularly on T 6014.

The differences in location, mentioned on pages 4 to 7 of the preceding descriptive report, are taken up in the following paragraphs with particular attention to their effect on the hydrographic surveys.

In considering these differences in location the compilation has generally been given the most weight because it is on a larger scale and was compiled with knowledge of the differences and with ample time for the compiler to study those differences carefully before accepting his own location. The compilation has not been corrected unless error in the plot could be definitely established. Many of the topographic stations listed on pages 4 to 6 of the descriptive report are temporary stations only and will not appear on the printed compilation. Their position by the photo plot is shown on the celluloid sheet.

Carmans River and Carmans River east to Beaver Dam Creek: Topo stations Baw, Jol, Dol and Tar in Carmans River are located by the compilation 6 to 17 meters from the plane table positions on T 6014. Only two of these stations, Jol and Tar, are permanent and will be shown on the printed compilation.

The differences vary considerably and are in different directions so that

they do not indicate a wing in azimuth or loss in distance on the photo plot. The compilation is accepted as correct. The differences will not affect the soundings to any considerable extent and it is not necessary to replot those stations and the soundings on H 5367 a. The largest difference in shoreline location is 30 meters at Lat. 40°-46.7'. This will not affect the soundings seriously.

Lat. 40°-45.5', Long. 72°-55.6' - Station Dark, flag on west gable of Boat House - is located 30 meters east of the position on plane table survey T 6014. This object can be seen on the photographs and the plot can be readily checked to show the photo location to be correct within 6 to 8 meters. The compilation agrees closely with the plane table location of detail on both sides of this station. It is possible, but doubtful, that the house was destroyed and rebuilt between May and August, 1933. The compilation is accepted as correct. The affect of this difference on the soundings has been checked by plotting a number of the fixes using the compilation position of the station. The bottom is regular in this area and the small displacements affected are not important.

Long. 72°-56', Lat. 40°-45.8' - Station Ring, the end of a wharf, is located by the compilation 21 meters S. by E. of the plane table position on T 6014. This object shows clearly on the photos and the plot has been checked in the same manner as for station Dark in the preceding paragraph. The compilation is accepted as correct. The compilation position places the end of the wharf dompet on a line of two foot soundings. The affect on the soundings of using the compilation position has been checked by plotting a number of positions on H 5367 and no important changes were found.

Long. 72°-57' to 73°-00' along the H. W. line - compilation shows differences in location of 19 to 22 meters for stations Dub, Go and Air. These stations were located on plane table survey T 6007. Station Air, south end of an airplane hanger, shows clearly on the photos and the plot is well controlled. The photo plot position is considered correct within five meters. In the case of stations Dub and Go, the compilation agrees with the plane table survey in location of other detail around these stations so the difference is not to any large extent due to error in the plot. The photographs are somewhat blurred here and the difference may in part be due to spotting but this should not amount to more than a few meters. Not over 6 to 8 meters of the amount of these differences is accountable to errors in the compilation and the positions on the compilation have not been changed. Only station Air will show as a topographic station on the printed compilation. The effect of these differences in location on the hydrography has been investigated and are not important except in case of station Air. This station controls soundings on F day and using the compilation position places some of the N and S lines 30 to 40 meters east of the plotted positions. However, the bottom is so regular that these displacements are not important except in case of the location of the Beacon at Lat. 40°-43.4', Long. 73°-00'. The location for this Beacon found in going through the records is position 54 F day (green) which states the Beacon to be 20 meters on the port Beam. Replotting on the compilation position of station Air would place the Beacon about 30 meters east of its present position on H 5367 a. Also position 48 V day red, not using station Air for the fix, states that the Bn. is on range with Lite. This range when plotted from Pos. 48 V does not check the position of the Bn. as shown on H 5367a at present but checks very closely the

position obtained when replotting the Bn. on the photo location of station Air as mentioned above. However, the location of the Beacon on the new edition of chart 578 shows it about 250 meters S.E. of the position given on H 5367a so that the position on the hydrographic sheet is of no value except as a matter of record.

The two jetties at the end of Howell Creek on the compilation were not traced accurately by the compiler and did not agree with the description given for station Dub on page 4 of the report. This has been corrected in reviewing the sheet. The change amounted to about 10 meters.

The shoreline of the creeks along the north shore of Great South Bay can now be transferred to H 5367a and the soundings up those creeks plotted. Otherwise, it does not seem necessary to make any changes on H 5367a since that sheet has already been verified and inked. In applying the surveys of this area to the charts the topography should be taken from the compilation rather than from the plane table surveys T 6007 and T 6014 as has already been done in the case of chart 578.

It is recommended that a copy of this report be attached to H 5367 a.

The compilation has been compared with the new chart 578 but not with the other topographic surveys in this area.

Names. Names are in agreement with the largest scale chart No. 578. The name Beaver Dam Creek shown by the compiler has been changed to Fireplace Creek to agree with chart 578.

Form 537a
Ed. Nov., 1929

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. "F"

REGISTER NO.

State New York

General locality Great South Bay, Long Island, L. I.

Locality Forge River to Howell Point.

Scale 1:20,000 Date of survey June to August, 1933

Vessel Shore Party No.2, Project HT-132

Chief of party Raymond P. Eyman,

Surveyed by W.H. Lea and A.H.Weber

Inked by J.C. Tison and A.H. Weber

Heights in feet above to ground to tops of trees

Contour, Approximate contour, Form line interval feet

Instructions dated February 25, 1933

Remarks: For location of hydrographic signals and control points for air photos.