6216a
6216b

U. S. COAST & GEODETIC SURVEY
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6216a
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Form 504
Rev. Dec. 1933

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

Topographic A & A'
~~*Hydrographic*~~ } *Sheet No.* ~~K~~ ~~K~~ ~~KA~~

State New Jersey

LOCALITY

Vicinity of Barnegat Bay
~~Manasquan & Metedeconk Rivers~~
a. Squan Beach to Bayhead
~~Open Coast from Squan Beach to~~
b Metedeconk Neck
~~Manoloking~~

193 4

CHIEF OF PARTY

E. R. McCarthy

U.S. GOVERNMENT PRINTING OFFICE: 1934

Form 537a
Ed. Nov., 1929

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

U. S. COAST & GEODETIC SURVEY
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REG. NO.
Acc. 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. A & A' ~~A and AA'~~ 6216

REGISTER NO. 6216a 6216b

State New Jersey

General locality Vicinity of Barnegat Bay ~~Manasquan River and Metedeconk River~~

Locality A-a. Squan Beach to Bayhead ~~Open coast from Squan Beach to Mantoloking~~
A-b. Metedeconk Neck and Vicinity

Scale 1:10,000 Date of survey June, 1934

Vessel Field Party No. 14

Chief of party E. R. McCarthy

Surveyed by J. R. Brosnan

Inked by J. R. Brosnan

Heights in feet above to ground to tops of trees

Contour, Approximate contour, Form line interval feet

Instructions dated May 10, 1934

Remarks:

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DESCRIPTIVE REPORT
to accompany
TOPOGRAPHIC SHEETS NO. 'A' & 'AA'
NEW JERSEY

AUTHORITY:

Instructions of the Director dated May 10,1934.

LIMITS:

SHEET 'A'

Open coast from Mantoloking Coast Guard Station to Bayhead Coast Guard Station and Metedeconk River and tributary creeks.

SHEET 'AA'

Open coast from Bayhead Coast Guard Station to Squan Beach Coast Guard Station, the Manasquan River, and tributary creeks.

CONTROL:

SHEET 'A'

When topography was started on sheet 'A' triangulation station BAYHEAD, BAYHEAD TANK, MANTOLOKING, CHILD and CONK were plotted on this sheet, later triangulation Station FLAG was computed and plotted.

SHEET 'AA'

Except for stations SHELL, MnR 10-12-20-30-36 no USE stations were plotted on the sheet at the time the topography was done.

At a later date the remaining stations were computed and plotted. The positions checked closely with the topographic location.

METHODS:

SHEET 'A'

Usual plane table methods of traverse were used and rods checked both before and after the survey. A few dead end traverses were run.

METHODS(CON'T)

SHEET 'AA'

The section of the Manasquan north of Gable Point was traversed but the rest of the topography was done by cutting in signals and objects by plane table triangulation from triangulation stations.

CLOSURES:

These closures were given a proportional adjustment.

From	To.	Dist. Mi.	Clos.Meters.
Mantoloking	Flag	0.8	2.0
Mantoloking (outside)	Bayhead (outside)	2.0	8.0
Mantoloking	Conk	1.5	0.0
Conk	Child	1.7	5.0
Child	Highway Bridge Lat.74°08' Long.40° 04	2.0	Dead end
Mantoloking (Inside)	Bayhead (Inside)	2.0	3.0
Conk	End Beaver Dam Creek S. Fork	2.0	Dead end
Conk	End Beaver Dam Creek N. Fork	1.5	Dead end
Bayhead	Easterly Telephone pole	1.2	3.0
Bayhead	Leighton Hotel	1.5	5.0
Manasquan River Bn.	Squan	1.0	3.0
Manasquan River Bn.	Shell	0.8	2.0
MNR 41	Highway Bridge Lat.40° 08 Long. 74° 06	1.0	Dead end
MnR 14	Easterly telephone pole	0.5	1.0

DESCRIPTION OF COAST:

SHEET 'A'
GENERAL

The open coast is low lying sand beach with dunes 20 feet high at the southern end of the sheet. This section is a popular summer resort and the coast for 1/4 mile back back is thickly covered with an almost unbroken line of more or less permanent summer houses. The western end of the

DESCRIPTION OF COAST (CON'T)

SHEET 'A'
GENERAL

Metedeconk River is sparsely populated especially the north side. The river section of this sheet is heavily wooded.

The inland waterway is used considerably by small craft. There is one bridge crossing it on sheet 'A'.

The Metedeconk River is used by small sail boats and skiffs with outboards during the summer. Most of them belong to the summer camps on either bank.

The sand dunes on the lower end of the sheet shift with each blow and the correct HWL is determinable for a short time only.

SHEET 'AA'
GENERAL The open coast is sandy beach and a boardwalk runs almost the length of the sheet. This section especially around Point Pleasant Beach and Manasquan Beach is thickly covered with summer cottages, with an occasional fishing pier.

Manasquan Inlet, the northern terminal of the inland waterway lies about one mile south of Squan Beach Coast Guard Station. This waterway has a connection gia the Manasquan River; the Bayhead-Manasquan Canal and the Metedeconk River to the upper end of Barnegat Bay. The Manasquan River is used continually during the summer months by small craft up to the entrance of the canal, but beyond this point is only used by cat boats. The land is low at the inlet but beyond the canal is high on both sides.

The inlet is used extensively by pleasure fishing boats and to some extent by commercial fishermen.

TOWNS:

Mantoloking and Bayhead are summer colonies, Manasquan, Brielle and Point Pleasant are more permanent but have large summer populations.

LANDMARKS:

Sheet 'AA' has an abundance of good landmarks, but on sheet 'A' good landmarks are few. The important landmarks are described on the attached list. There are two separate list of landmarks, one for Chart 1216 and a second to be used in case

LANDMARKS(CON'T):

an inside LARGE scale chart of Manasquan and Metedeconk Rivers is published.

MISCELLANEOUS:

There are a few fish traps on the outside coast. These were located by topography and are shown.

The pencil shore line on the sheets is shoreline taken from blueprints furnished by air photo topography, the inked shoreline was done by topography.

There are boat yards at Brielle and Bayhead which are capable of hauling any size boat which may use the inland waterway. There are smaller yards at Point Pleasant and Mantoloking.

The data for co-ordinate system for the U. S. Engineers surveys is attached.

Respectfully submitted

J. R. Brosnan

J. R. Brosnan
Topographer

Approved and Forwarded:

E. R. McCarthy,
Lieut. (jg.) U. S. C. & G. Survey,
Chief of Party No. 14.

U. S. ENGINEERS SURVEYS:

The Harbor Line Board of the U S Engineers had located a large number of triangulation stations in 1933 on the Manasquan River. Their scheme was tied in to the C. & G. Survey scheme and computed on the 1927 datum (Details are on the attached "Report of triangulation".

The co-ordinate system of the U S Engineers was plotted by assuming that MnR 16 (USE) was correct as given and making a projection drawing 5000 feet lines perpendicular to and parallel to the latitudes.

The triangulation system as computed by the engineers was in error probably due to a swing of azimuth and the following errors are noted.

MnR 2 plots 3 meters south of true station
MnR 40 plots 3 meters north and 2 meters east of true station.

E. R. McCarthy,
Lieut. (j.g.)
Chief of Party.

COPY

REPORT ON COMPUTATION

U. S. ENGINEERS ** MANASQUAN RIVER

During the 1934 season ties were made as follows to the U. S. Engineers scheme of triangulation on the Manasquan River:

Lines Connections:
Station MnR 6 - MnR 3 - MnR 4.
Quad - MnR 14 - MnR 17-MnR 10- MnR 12.

Point Connections:
MnR 20
MnR 30
MnR 36

The scheme was computed on the Coast and Geodetic Survey datum from the line values as determined by the C. & G. Survey in 1934. Triangles were made out to the nearest second from angular values obtained from the U. S. Engineer's data sheet which is attached to this report.

The line MnR 14 to MnR 17 was used as a base and checks were as follows:

STATION	DATUM	LATITUDE	LONGITUDE
MnR 20	U.S.E.	40-05-21.130	74-04-41.606
	C.& G.S.	21.130	41.604
MnR 30	U.S.E.	40-06-10.554	74-05-38.442
	C.& G.S.	10.545	38.432
MnR 36	U.S.E.	40-06-51.673	74-05-50.302
	C.& G.S.	51.656	50.291

The checks on MnR 20 and MnR 30 were good, but the scheme was somewhat off at MnR 36 so the C. & G. Survey value for MnR 36 was held and MnR 38 computed as a traverse. From the line MnR 36 - MnR 36 the remainder of the the scheme was computed.

The Engineer's scheme had utilized a number of stations of the Bureau of Commerce and Navigation of the State of New Jersey. The following stations are identical:

MnR 3 (USE) = Meadow (B.C. & N.)
MnR 4 (USE) = Channel (B.C.& N.)
MnR 6 (USE) = Shell (B.C. & N.)

No information could be obtained as to the accuracy aimed at by the Engineer's survey party, but the observations are thought to have consisted of 6 D and no R on each angle.

Respectfully submitted

E. R. McCarthy,
Lieut. (j.g.) C.& G.S.
Chief of Party.

M-189

REVIEW OF GRAPHIC CONTROL SURVEY T- 6216a , SCALE 1:10000

Date of Review 5/24/36

1. This survey has been reviewed in connection with Air Photo Compilation Nos. T-5284, 5285, , with particular attention to the following details:

(a) Projection has been checked in the Field.

(b) Accuracy of location of plane table control points.

(c) Discrepancies between detail on this survey and the air photo compilations listed above.

(d) Discrepancies found in descriptions submitted on Form 524 when compared with the air photo compilations listed above.

2. Refer to the reviews and descriptive reports of air photo compilations Nos. T-5284, 5285, , for a more complete discussion of any errors or discrepancies found.

*Any material errors found on this survey are noted in subsequent paragraphs of this review, and these have been reported to the Field Records Section ~~and the Cartographic Section.~~

Notes and corrections resulting from the review are shown on this survey in green.

* See Review T 5284 and T 5285, and pages 4 to 5 report T 6285 regarding errors in location found on this survey. These have been noted in green on T 6216a.

R.M. Berry

B.G. Jones

M-189

REVIEW OF GRAPHIC CONTROL SURVEY T-6216b, SCALE 1:10 000

Date of Review
5/25/36

1. This survey has been reviewed in connection with Air Photo Compilation Nos. T-5285, , , with particular attention to the following details:

(a) Projection has been checked in the Field.

(b) Accuracy of location of plane table control points.

(c) Discrepancies between detail on this survey and the air photo compilations listed above.

(d) Discrepancies found in descriptions submitted on Form 524 when compared with the air photo compilations listed above.

2. Refer to the reviews and descriptive reports of air photo compilations Nos. T-5285, , , for a more complete discussion of any errors or discrepancies found.

Any material errors found on this survey are noted in subsequent paragraphs of this review, and these have been reported to the Field Records Section ~~and the Cartographic Section.~~

Notes and corrections resulting from the review are shown on this survey in green.

See pages 4 and 5 of descriptive report T 5285 regarding errors in location on this planetable survey. T 5285 these are noted in green on T 6216b.

B. G. Jones

6216-06

Form 567
Rev. [illegible] 1933

DIVISION OF CHARTS, FILE NO._____

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

Miami, Florida

February 11, 1935

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.

E. R. McCarthy — Chief of Party.

DESCRIPTION	POSITION						METHOD OF DETERMINATION	CHARTS AFFECTED
	LATITUDE			LONGITUDE		N. A. DATUM 1927		
	°	'	D. M. METERS	°	'	D. P. METERS		
STANDPIPE (Point Pleasant Standpipe)	40	05	476.1	74	02	1169.	"	Trian	1216 ✓
TANK (ELEV) (Tank Pt. Pleasant)	40	05	300.6	74	02	1184.5	"	Trian	1216 ✓
* TANK (ELEV) (Tank Bayhead)	40	04	188.1	74	02	1048.6	"	Trian	1216 ✓
TOWER - (North transmission tower)	40	06	526.8	74	03	405.7	"	Trian	1216 no
TOWER - (South transmission tower)	40	06	388.6	74	03	321.6	"	Trian	1216 no
STANDPIPE (Standpipe Manasquan)	40	07	378.2 ✓ 937.7	74	03	647.2 ✓ 878.4	"	Trian	1216 ✓
CUPOLA - (Cupola Squan Beach Coast Guard Sta.)	40	06	1724.8	74	02	88.7	"	Topo.	1216 ✓
CUPOLA - (Manoloking Coast Guard Station)	40	01	1213	74	03	299	"	Topo	1216 ✓
FLAGTOWER (Bayhead C. G. Station)	40	04	26	74	02	922	"	Topo	1216 ✓

A list of objects carefully selected because of their value as landmarks as determined from seaward together with individual descriptions, 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 an important factor in the value of the chart. Landmarks selected at appropriate intervals can be clearly charted. However, when none is outstanding, a group of two or three objects may by their interrelationship provide positive indentification. A group so selected should be indicated.

The description of each object should be short, but such as will clearly identify it; for example, a standpipe, elevated tank, as tank, church spire, tall stack, red chimney, radio mast, etc. Assign numerals to landmarks to indicate: (1) offshore, (2) inshore, (3) harbor, 1, 2, 3 would be a mark useful on all charts. Generally, flagstaffs and like objects are not sufficiently permanent to chart.

U. S. GOVERNMENT PRINTING OFFICE: 1933

6216 a-2

Form 567
Rev. [illegible] 1933

DIVISION OF CHARTS, FILE NO. _____

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

~~LANDMARKS FOR CHARTS~~ ¢
PERMANENT NON FLOATING AIDS TO NAVIGATION

Miami, Florida

February 11, 1935

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.

E. R. McCarthy Chief of Party.

DESCRIPTION	POSITION						N. A. DATUM 1927	METHOD OF DETERMINATION	CHARTS AFFECTED
	LATITUDE			LONGITUDE					
	°	′	D. M. METERS	°	′	D. P. METERS			
ENTRANCE BEACON MANASQUAN RIVER	40	06	159.4	74	01	1287.7	"	Trian	3234 ✓ 1216 ✓
~~Light~~ (Flashing Red) LIGHT -sig- Yag	40	05	51.195 1579.	74	03	32.036 759.	"	Topo	3234 ✓ 1216 ✓
LIGHT (Flashing Red)	40	05	22.339 689.	74	04	06.838 162	"	Topo	3234 ✓ 1216 ✓
LIGHT (Flashing Red)-Sig.Bee	40	03	4.442 137.	74	03	1.097 26	"	Topo	3234 ✓ 1216 ✓
LIGHT (Flashing Red)-Sig.Zag	40	03	49.638 1531	74	03	4.050 96	"	Topo	3234 ✓ 1216 ✓
[illegible]HT (Flashing Green)-Sig.Pile	40	01	50.905 1570	74	03	28.758 692	"	Topo	3234 ✓ 1216 ✓

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The description of each object should be short, but such as will clearly identify it; for example, a standpipe, elevated tank, gas tank, church spire, tall stack, red chimney, radio mast, etc. Assign numerals to landmarks to indicate: (1) offshore, (2) inshore, (3) harbor, 1, 2, 3 would be a mark useful on all charts. Generally, flagstaffs and like objects are not sufficiently permanent to chart.

U. S. GOVERNMENT PRINTING OFFICE: 1933

Form 567
Rev. [illegible] 1933

Topo. Sheet 'A' - 'H'

6216a-6

DIVISION OF CHARTS. FILE NO.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

Miami, Florida

February 11, 1935

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.

E. R. McCarthy — Chief of Party.

DESCRIPTION	POSITION						N.A. DATUM 1927	METHOD OF DETERMINATION	CHARTS AFFECTED
	LATITUDE			LONGITUDE					
	°	′	D. M. METERS	°	′	D. P. METERS			
HOUSE (Sig. Ugs) Center Gab. Yacht Club	40	06	26.943 631	74	02	57.882 1371.	"	Topo	Plot
FLAGTOWER (Tri. Sqran) Flagtower Coast Guard	40	06	55.562 1713.7	74	02	2.677 63.4	"	Trian.	Plot (source?)
FLAGTOWER (Flagtower Bayhead CGS)	40	04	25	74	02	925	"	Topo	
FLAGTOWER (Sig.Flag) Flagtower Mantoloking CG.	40	01	39.543 1219.6	74	03	11.335 268.8	"	Trian	
CHIMNEY (Sig. Mono) Bridge Tenders Ho.	40	02	23.571 727	74	03	22.143 525.	"	Topo	
FLAGPOLE (Sig.Lite) High Steel	40	03	24.544 757	74	05	9.745 231	"	Topo	
CHIMNEY (Sig. If) E.Chimney Yacht Club	40	04	.292 09	74	02	56.545 1340	"	Topo	
BUILDING (Sig. Nun) E. Gab. Red	40	03	25.062 773	74	06	49.148 1165	"	Topo	
CUPOLA (Sig. Mad) Bridge Tenders House	40	04	15.498 478	74	03	34.129 809	"	Topo	
FLAGTOWER Flagtower.Weather Steel	40	03	53.010 1655	74	02	54.801 1299	"	Topo	
TANK (ELEV)-wooden (White tank Switcher Foundation)	40	06	56.201 1733.4	74	05	13.945 330.3	"	Trian	
TANK (ELEV) wooden (Blue Tank)	40	05	43.059 1328.0	74	04	21.805 516.6	"	Trian	

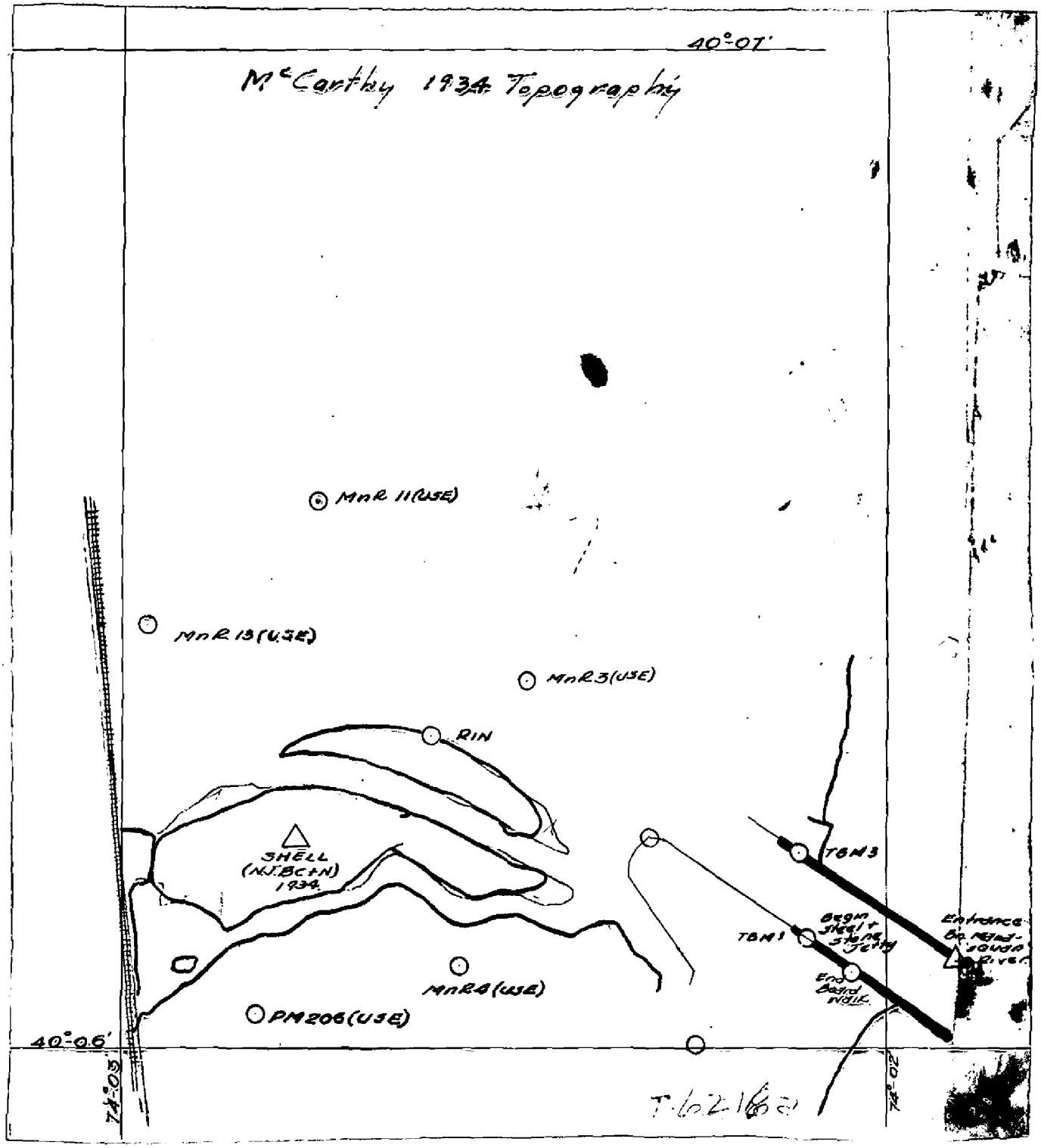
Note: These landmarks are to be used if large scale chart of the Manasquan and Metedeconk Rivers is made.

A list of objects carefully selected because of their value as landmarks as determined from seaward together with individual descriptions, 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 an important factor in the value of the chart. Landmarks selected at appropriate intervals can be clearly charted. However, when none is outstanding, a group of two or three objects may by their interrelationship provide positive indentification. A group so selected should be indicated.

The description of each object should be short, but such as will clearly identify it; for example, a standpipe, elevated tank as tank, church spire, tall stack, red chimney, radio mast, etc. Assign numerals to landmarks to indicate: (1) offshore, (2) inshore, (3) harbor, 1, 2, 3 would be a mark useful on all charts. Generally, flagstaffs and like objects are not sufficiently permanent to chart.

U. S. GOVERNMENT PRINTING OFFICE: 1933


40°-07'
McCarthy 1934 Topography
MnR 11(USE)
MnR 13(USE)
MnR3(USE)
RIN
SHELL (N.J.B.C.N) 1934
TBM3
TBM1
Begin Shell Stone Jetty
Entrance Br. Mad-ison River
End Board Walk
MnR4(USE)
PM206(USE)
40°-06'
74°-05'
74°-02'
T-62-1621