

# 11575

Diag. Cht. No. 1205.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

## DESCRIPTIVE REPORT

Type of Survey Shoreline

Field No. Ph-114 Office No. T-11575

### LOCALITY

State Maine

General locality Gulf of Maine

Locality Wood Island to Fletcher Neck

19453-54

CHIEF OF PARTY

E.H.Kirsch, Balto. Photo. Office

LIBRARY & ARCHIVES

DATE June 10, 1958

8-1870-1 (1)

# 11575

# DATA RECORD

T-11575

Project No. (II): **Ph-114**

Quadrangle Name (IV):

Field Office (II): **Newburyport, Mass.**

Chief of Party: **E. H. Kirsch**

Photogrammetric Office (III): **Baltimore, Md.**

Officer-in-Charge: **E. H. Kirsch**

Instructions dated (II) (III):  
**20 Feb. 1953**  
**13 Mar. 1953**  
**26 Mar. 1953, Supp. 1**  
**5 Aug. 1954, Supp. 7**  
**1 Feb. 1955, Supp. 8**

Copy filed in Division of  
 Photogrammetry (IV)

Method of Compilation (III):

**Air Photographic (Kelsh Plotter)**

Manuscript Scale (III): **1:5000**

Stereoscopic Plotting Instrument Scale (III): **1:4000**

Scale Factor (III): **1.000**

Date received in Washington Office (IV):

Date reported to Nautical Chart Branch (IV):

Applied to Chart No.

Date:

Date registered (IV): **5-8-58**

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III): **N.A. 1927**

Vertical Datum (III):

Mean sea level except as follows:  
 Elevations shown as (25) refer to mean high water  
 Elevations shown as (5) refer to sounding datum  
 i.e., mean low water or mean lower low water

Reference Station (III): **FLETCHERS NECK 156, 1941**

Lat.: **43° 26' 55.921"**

Long.: **70° 20' 30.066"**

Adjusted  
Underfoot

Plane Coordinates (IV):

State:

Zone:

Y=

X=

Roman numerals indicate whether the item is to be entered by (II) Field Party, (III) Photogrammetric Office,  
 or (IV) Washington Office.

When entering names of personnel on this record give the surname and initials, not initials only.


Inapplicable

Areas contoured by various personnel  
 (Show name within area)  
 (II) (III)

DATA RECORD

Field Inspection by (II) **L. F. Beugnet**  
(See "Remarks")

Date: **Sept. 1953**

Planetable contouring by (II): **Inapplicable**

Date: **---**

Completion Surveys by (II):

Date:

Mean High Water Location (III) (State date and method of location):  
**Refer to Item No. 33, Descriptive Report**

Projection and Grids ruled by (IV): **A. Riley**

Date: **10 Feb. 1955**

Projection and Grids checked by (IV): **J. Allen**

Date: **11 Feb. 1955**

Control plotted by (III): **J. C. Richter**

Date: **17 Feb. 1955**

Control checked by (III): **A. K. Heywood**

Date: **17 Feb. 1955**

Radial Plot or Stereoscopic  
Control extension by (III):

Date:

Planimetry **J. C. Richter**  
Stereoscopic Instrument compilation (III):  
Contours **----**

Date: **7 Mar. 1955**

Date: **----**

Manuscript delineated by (III): **J. C. Richter**

Date: **14 Mar. 1955**

Photogrammetric Office Review by (III): **A. K. Heywood**

Date: **5 May 1955**

Elevations on Manuscript **----**  
checked by (II) (III):

Date:

Camera (kind or source) (III):

PHOTOGRAPHS (III)  
Time (E.S.T.)

Number	Date	Time (E.S.T.)	Scale	Stage of Tide
54-W-1355 - 1356	4/29/54	15:20	1:20,000	1.9' above MLW

1.7

Tide (III)

From Predicted Tides

Reference Station: **Portland, Maine**  
Subordinate Station: **Wood Is., Harbor**  
Subordinate Station:

Ratio of Ranges	Mean Range	Spring Range
--	8.9	10.2
1.0	8.7	9.9

-0.05

Washington Office Review by (IV):

Date: *Feb. 28, 1957*

Final Drafting by (IV):

Date:

Drafting verified for reproduction by (IV):

Date:

Proof Edit by (IV):

Date:

Land Area (Sq. Statute Miles) (III):

Shoreline (More than 200 meters to opposite shore) (III): **12**

Shoreline (Less than 200 meters to opposite shore) (III):

Control Leveling - Miles (II):

Number of Triangulation Stations searched for (II): \*

Recovered:

Identified:

Number of BMs searched for (II):

Recovered:

Identified:

Number of Recoverable Photo Stations established (III): **None**

Number of Temporary Photo Hydro Stations established (III): **13**

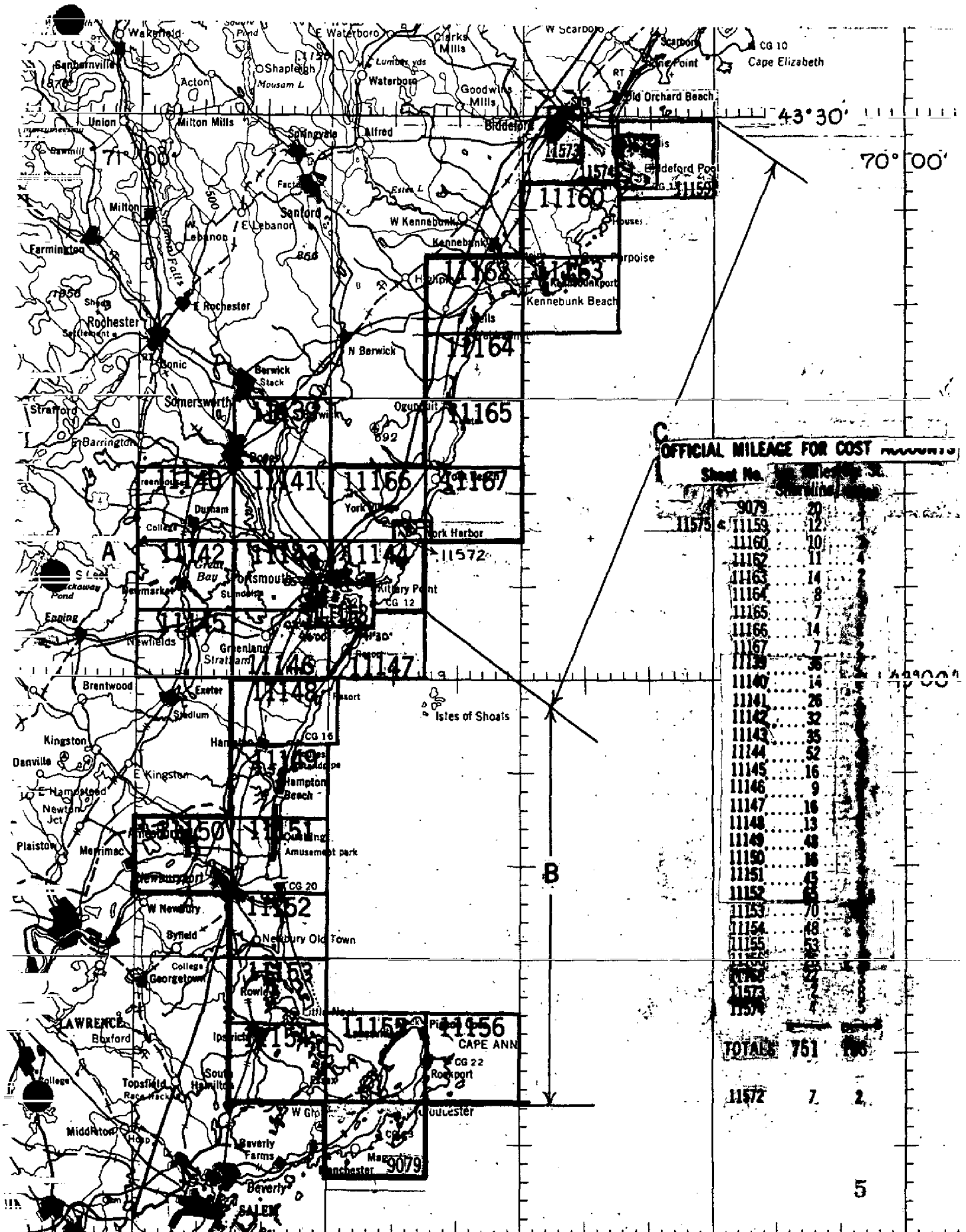
Remarks:

\* See Descriptive Report for T-11159. Horizontal control identification for T-11159 was used. Field inspection of shoreline and other details for Survey T-11159 was not available.

# SHORELINE MAPPING PROJECT PH-114

## BIDDEFORD POOL, MAINE TO CAPE ANN, MASS.

-5-



### OFFICIAL MILEAGE FOR COST

Sheet No.	Mileage	Shoreline
9079	20	
11159	12	
11160	10	
11162	11	
11163	14	
11164	8	
11165	7	
11166	14	
11167	7	
11168	36	
11169	14	
11171	26	
11172	32	
11173	35	
11174	52	
11175	16	
11176	9	
11177	16	
11178	13	
11179	48	
11180	18	
11181	45	
11182	65	
11183	70	
11184	48	
11185	53	
11186	25	
11187	27	
11188	27	
11189	27	
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Summary to Accompany T-11575

Field instructions were issued for Ph-114 on 13 March 1953 to provide shoreline and control for inshore hydrographic surveys and to provide standard shoreline manuscripts for short compilation.

The hydrographic phase of survey was accomplished under instructions for CS-355, 6 March 1953, 29 January 1954, and 16 February 1955, Gloucester Harbor Mass. Biddeford, Saco River, Maine.

A cloth-backed lithographic print of each map at manuscript scale and the descriptive report will be registered and permanently filed in the Bureau Archives.



COMPILATION REPORT  
Project Ph-114  
T-11575

Field Inspection Report:

Refer to Descriptive Report for Shoreline Survey T-11159.

Photogrammetric Plot Report:

Bound with Descriptive Report for Shoreline Surveys T-11573 and 11574.

31. DELINEATION

All detail was delineated by the Kelsh instrument. Shoreline will be discussed in subsequent paragraphs.

32. CONTROL

Refer to Photogrammetric Plot Report, paragraph No. 23

33. SUPPLEMENTAL DATA

A shoreline survey T-11159, scale 1:10,000, delineated in 1954, which covered the same area, was used as supplemental data for shoreline and offshore details. The greater part of the shoreline was accepted from this survey. Rock ledge areas not covered by the latest photography were also taken from this survey.

34. CONTOURS AND DRAINAGE

Contours are inapplicable and drainage is complete.

35. SHORELINE AND ALONGSHORE DETAILS

Shoreline inspection (in accordance with instructions) was furnished only as far as the vicinity of Hill Beach. The remainder of the shoreline, except for minor changes, <sup>54-10-1355</sup> was taken from T-11159, since even the previous field inspection photographs were not available during this compilation. An enlargement at scale 1:5000, was furnished for Survey T-11159.

Field inspection of the low water and limits of rock ledge were furnished to the vicinity of Halftide Rock. The remainder was delineated from office interpretation.

*\* The shoreline for EAGLE I. (lat. 43°28'45" long. 70°21'35") is not shown on this survey (T-11575). See D.R. T-11159, page 8, paragraph 31. For the delineation of the shoreline of EAGLE I. see H-825 (1955) paragraph 2 of the Review.*

\*NOTE - An attempt was made to delineate the shoreline during the Kelsh compilation without benefit of field inspection. This is now deemed to have been unsuccessful. The character of the shoreline for this survey, being rock with extensive offshore ledges, differed from the adjoining surveys for which field inspection was furnished. This precluded our ability to delineate it by analogy.

L.S.S.  
6/8/61.



36. OFFSHORE DETAILS

Data complete.

37. LANDMARKS AND AIDS

Data complete.

38. CONTROL FOR FUTURE SURVEYS

No topographic stations were established during this survey. Hydrographic signals were relocated.

A list of photo-hydro stations with descriptions has been prepared and included in paragraph No. 49, of the Report for Shoreline Survey T-11159.

39. JUNCTIONS

Junction was made to the west with Survey T-11574.

40. HORIZONTAL AND VERTICAL ACCURACY

Refer to Photogrammetric Plot Report, Item No. 23.

46. COMPARISON WITH EXISTING MAPS

USGS quadrangle, Biddeford, Me., scale 1:62,500 published 1941.

47. COMPARISON WITH NAUTICAL CHARTS

Chart No. 231, First Edition 1925, scale 1:20,000, 4th Edition, Oct. 1945, 7/26/54.

Items to be applied to Nautical Charts immediately: None.

Items to be carried forward: None.

Approved and forwarded

*E. H. Kirsch*

E. H. Kirsch, Comdr. USC&GS  
Officer in Charge,  
Baltimore Photo. Office

Respectfully submitted  
5 May 1955

*A. K. Heywood*

A. K. Heywood  
Carto. (Photo.)

Review Report T-11575  
Shoreline Map  
28 February 1954

61. General

This map is a 1:5,000 scale Kelsh plotter delineation of the same area as T-11159 which is a graphic compilation at 1:10,000 scale.

62. Comparison with Registered Surveys

T-760	1:10,000	1859	Fletcher Neck & Vicinity
T-1188	"	1870	Mouth of the Saco River and Biddford Pool
T-1188a	"	1912-13	

Because of extensive cultured changes, T-11575 supersedes the older surveys for charting purposes.

63. Comparison with Maps of Other Agencies

U.S.E. Biddeford Pool 1:25,000 1949

T-11575 supersedes the quadrangle for charting.

64. Comparison with Contemporary Hydrographic Surveys

H-8257 1:5,000 1955 Fletchers Neck

A blue-print of the boat <sup>sheet</sup> was available for review. The shoreline is that of T-11575. No changes were made during review.

The reef at Halftide Rock as delineated on T-11575 was in conflict with the hydrographic survey. Its form was changed during review and rock elevations from field photograph 53-J-200 were added.

For detail of rocks in Beach Island see T-11159.

65. Comparison with Nautical Charts  
*see paragraph 35, page 8 of this D.R. relative the shoreline of Eagle I.  
also D.R. par. 2 of Review H-8257(1955)*

231 1:20,000 Oct. 1945 Corr. July 1954

*L.S.S.  
6/8/61.*

T-11575 has not been applied to charts.

66. Accuracy

This survey complies with project instructions and meets the National Standards of Accuracy.

Reviewed by:

*K. N. Mahi*  
for Lena T. Stevens

Approved by:

*L. C. Lande*  
\_\_\_\_\_  
Chief, Review & Drafting Sec.  
Photogrammetry Div.

*Max C. Kellogg*  
\_\_\_\_\_  
Chief, Nautical Chart Br.  
Charts Division

*Chas. J. Bull*  
\_\_\_\_\_  
Chief, Photogrammetry Div. *MB*

*W. D. Russell*  
\_\_\_\_\_  
Chief, Coastal Surveys



## PHOTOGRAMMETRIC OFFICE REVIEW

T-11575

1. Projection and grids ☒ 2. Title ☒ 3. Manuscript numbers ☒ 4. Manuscript size ☒

## CONTROL STATIONS

5. Horizontal control stations of third-order or higher accuracy ☒ 6. Recoverable horizontal stations of less than third-order accuracy (topographic stations) ☒ 7. Photo hydro stations ☒ 8. Bench marks ☒  
9. Plotting of sextant fixes ☒ 10. Photogrammetric plot report ☒ 11. Detail points ☒

## ALONGSHORE AREAS

(Nautical Chart Data)

12. Shoreline ☒ 13. Low-water line ☒ 14. Rocks, shoals, etc. ☒ 15. Bridges ☒ 16. Aids to navigation ☒ 17. Landmarks ☒ 18. Other alongshore physical features ☒ 19. Other along-shore cultural features ☒

## PHYSICAL FEATURES

20. Water features ☒ 21. Natural ground cover ☒ 22. Planetable contours ☒ 23. Stereoscopic instrument contours ☒ 24. Contours in general ☒ 25. Spot elevations ☒ 26. Other physical features ☒

## CULTURAL FEATURES

27. Roads ☒ 28. Buildings ☒ 29. Railroads ☒ 30. Other cultural features ☒

## BOUNDARIES

31. Boundary lines ☒ 32. Public land lines ☒

## MISCELLANEOUS

33. Geographic names ☒ 34. Junctions ☒ 35. Legibility of the manuscript ☒ 36. Discrepancy overlay ☒ 37. Descriptive Report ☒ 38. Field inspection photographs ☒ 39. Forms ☒  
40. [Signature] [Signature]  
Reviewer Supervisor, Review Section or Unit

41. Remarks (see attached sheet)

## FIELD COMPLETION ADDITIONS AND CORRECTIONS TO THE MANUSCRIPT

42. Additions and corrections furnished by the field completion survey have been applied to the manuscript. The manuscript is now complete except as noted under item 43.

\_\_\_\_\_  
Compiler\_\_\_\_\_  
Supervisor

43. Remarks:

48. GEOGRAPHIC NAME LIST

Basket Island  
Beach Island  
Biddeford Pool

Fletcher Neck

Gooseberry Island

Halftide Rock  
Hill Beach

Libbyshears

Negro Island

Philip Rock

Ram Island

Stage Island

Me., 9  
Me., 208

The Pool

Washman Rock  
Wood Island  
Wood Island Harbor

49. NOTES FOR THE HYDROGRAPHER

Refer to item 49 of the Descriptive Report for Shoreline  
Survey T-1159.

DEPARTMENT OF COMMERCE  
U. S. COAST-AND-GEODETTIC SURVEY

## NONFLOATING AIDS OR LANDMARKS FOR CHARTS

TO BE CHARTED  
~~TO BE CHARTED~~

Baltimore, Maryland 6 April 1955

I recommend that the following objects which ~~have~~ *have not* been inspected from seaward to determine their value as landmarks be charted on ~~(attached)~~ *(attached hereto)* the charts indicated.

The positions given have been checked after listing by **Henry P. Elchert**

**E. H. Kirsch,** *Chief of Party.*

[illegible]

<p>This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and <i>nonfloatin</i></p>
---



PH-114  
LIST OF DIRECTIONS  
Div. of Photo.

Station Photo PT. "H"

State Maine

Chief of party E. H. Hirsch

Date 9/1/53

Computed by S. AB

Observer L. F. Beugnot

Instrument Wild T2 No 26314

Checked by RSD

OBSERVED STATION	Observed direction	Eccentric reduction	Sea level reduction*	Corrected direction with zero initial	Adjusted direction*
WOOD ISLAND LIGHTHOUSE, 1866	0 00 00.00	0 00 00.00	0 00 00.00	0 00 00.00	
Half Tide Rock Daybeacon	297 57 09.5				
Philip Rock Daybeacon	356 40 33.2				
Angles on Pg. 12 - Vol. "Location of Aids" - Sheets 1163 & 11159					

\* These columns are for office use and should be left blank in the field.

Station: Ken

State: Maryland

Chief of party: C. V. H.

Date: 1917

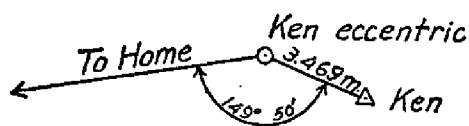
Computed by: O. P. S.

Observer: C. V. H.

Instrument: No. 168

Checked by: W. F. R.

OBSERVED STATION	Observed direction	Eccentric reduction	Sea level reduction	Corrected direction with zero initial	Adjusted direction
	° ' "	' "	"	° ' "	' "
Chevy .....	0 00 00.00	- 7.31		0 00 00.00	
Tank west of Δ Dulce .....	29 03 37.0	-1 09.3		29 02 34.5	
Ken (center), 3.469 meters .....	176 42				
Forest Glen standpipe .....	313 24 53.0	+3 01.2		313 28 01.5	
Home .....	326 31 30.21	+ 31.93		326 32 09.45	
Bureau of Standards, wireless pole .....	352 17 20.8	+ 5.7		352 17 33.8	
Reno .....	357 28 48.63	- 1.16		357 28 54.78	
Reference mark, 16.32 m .....	358 31 20				



This form, with the first three and fifth columns properly filled out and checked, must be furnished by field parties. *To be acceptable it must contain every direction observed at the station.*

It should be used for observations with both repeating and direction theodolites.

The directions at only one station should be placed on a page.

If a repeating theodolite is used, do not abstract the angles in tertiary triangulation. The local adjustment corrections (to close horizon only) are to be written in the Horizontal Angle Record, and the List of Directions is to be made from that record directly.

Choose as an initial for Form 24a some station involved in the local adjustment, and preferably one which has been used as an initial for a round of directions on objects not in the main scheme. Use but one initial at a station. Call the direction of the initial 0° 00' 00." 00, and by applying the corrected angles to this, fill in opposite each station its direction reckoned *clockwise* around the whole circumference regardless of the direction of graduation of the instrument. The clockwise reckoning is necessary for uniformity and to make the directions comparable with azimuths.

If a station has been occupied eccentrically, reduce to the center and enter in this form, in ink, the resulting corrections to the observed directions in the column provided for them. If an eccentric reduction is necessary, but not made in the field, leave the column blank. If the station was occupied centrally, and no eccentric reduction is required, put dashes in the column to show that no corrections are necessary.

Directions in the main scheme should be entered to hundredths of seconds in first-order triangulation; otherwise to tenths only. Points observed upon but once, direct and reverse, should be carried to tenths in first-order and second-order triangulation, and to even seconds only in third-order triangulation. In general, but two uncertain figures should be given.

It is recommended that the following simple plan of observing be used with a repeating instrument: Measure each single angle in the scheme at each station and the outside angle necessary to close the horizon. *Measure no sum angles.* Follow each measurement of every angle immediately by a measurement of its supplement. Six repetitions are to constitute a measurement. The local adjustment will consist simply of the distribution of the error of closure of the horizon.





Station: Ken

State: Maryland

Chief of party: C. V. H.

Date: 1917

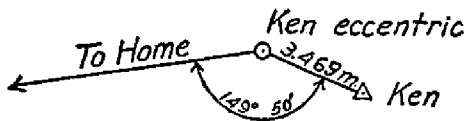
Computed by: O. P. S.

Observer: C. V. H.

Instrument: No. 163

Checked by: W. F. R.

OBSERVED STATION	Observed direction	Eccentric reduction	Sea level reduction	Corrected direction with zero initial	Adjusted direction
	° ' "	' "	"	° ' "	' "
Chevy .....	0 00 00.00	- 7.31		0 00 00.00	
Tank west of $\Delta$ Dulce .....	29 03 37.0	-1 09.8		29 02 34.5	
Ken (center), 3.469 meters .....	176 42				
Forest Glen standpipe .....	313 24 53.0	+3 01.2		313 28 01.5	
Home .....	326 31 30.21	+ 31.93		326 32 09.45	
Bureau of Standards, wireless pole .....	352 17 20.8	+ 5.7		352 17 33.8	
Reno .....	357 28 48.63	- 1.16		357 28 54.78	
Reference mark, 16.32 m. ....	358 31 20				



This form, with the first three and fifth columns properly filled out and checked, must be furnished by field parties. *To be acceptable it must contain every direction observed at the station.*

It should be used for observations with both repeating and direction theodolites.

The directions at only one station should be placed on a page.

If a repeating theodolite is used, do not abstract the angles in tertiary triangulation. The local adjustment corrections (to close horizon only) are to be written in the Horizontal Angle Record, and the List of Directions is to be made from that record directly.

Choose as an initial for Form 24A some station involved in the local adjustment, and preferably one which has been used as an initial for a round of directions on objects not in the main scheme. Use but one initial at a station. Call the direction of the initial  $0^{\circ} 00' 00."$  00, and by applying the corrected angles to this, fill in opposite each station its direction reckoned *clockwise* around the whole circumference regardless of the direction of graduation of the instrument. The clockwise reckoning is necessary for uniformity and to make the directions comparable with azimuths.

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# LIST OF DIRECTIONS

Station Photo PT "G" State Maine  
Chief of party E.H. Hirsch Date 9/8/52 Computed by J.F.B.  
Observer L.F. Beugnot Instrument Wild T-2 No 26314 Checked by R.D.

OBSERVED STATION	Observed direction	Eccentric reduction	Sea level reduction*	Corrected direction with zero initial	Adjusted direction*
FLETCHERS NECK WATER TANK, 1941	0 00 00.00			0 00 00.00	
Half Tide Rock Day Beacon	155 22 08.5				
Angles on Pg. 11 - Vol Location of Aids - Sheets 11163+11159					

\* These columns are for office use and should be left blank in the field.

Station: Ken

State: Maryland

Chief of party: C. V. H.

Date: 1917

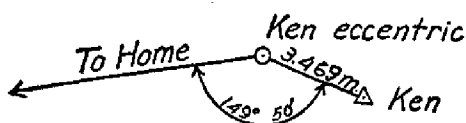
Computed by: O. P. S.

Observer: C. V. H.

Instrument: No. 168

Checked by: W. F. R.

OBSERVED STATION	Observed direction	Eccentric reduction	Sea level reduction	Corrected direction with zero initial	Adjusted direction
	° ' "	' "	"	° ' "	' "
Chevy .....	0 00 00.00	- 7.31	"	0 00 00.00	' "
Tank west of Δ Dulce .....	29 03 37.0	-1 09.8		29 02 34.5	
Ken (center), 3.469 meters .....	176 42				
Forest Glen standpipe .....	313 24 53.0	+3 01.2		313 28 01.5	
Home .....	326 31 30.21	+ 31.93		326 32 09.45	
Bureau of Standards, wireless pole .....	352 17 20.8	+ 5.7		352 17 33.8	
Reno .....	357 28 48.63	- 1.16		357 28 54.78	
Reference mark, 16.32 m .....	358 31 20				



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Station: Ken

State: Maryland

Chief of party: C. V. H.

Date: 1917

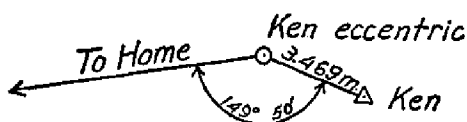
Computed by: O. P. S.

Observer: C. V. H.

Instrument: No. 168

Checked by: W. F. R.

OBSERVED STATION	Observed direction	Eccentric reduction	Sea level reduction	Corrected direction with zero initial	Adjusted direction
	° ' "	' "	"	° ' "	' "
Chevy	0 00 00.00	- 7.31		0 00 00.00	
Tank west of Δ Dulce	29 03 37.0	-1 09.8		29 02 34.5	
Ken (center), 3.469 meters	176 42				
Forest Glen standpipe	313 24 53.0	+3 01.2		313 28 01.5	
Home	326 31 30.21	+ 31.93		326 32 09.45	
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Reference mark, 16.32 m	358 31 20				



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# LIST OF DIRECTIONS

Station *Photo P.T. "E"* State *Maine*

Chief of party *E.H. Kirsch* Date *9/8/53* Computed by *LHB*

Observer *L.F. Benguet* Instrument *Wild T-2 No 26314* Checked by *RSD*

OBSERVED STATION	Observed direction	Eccentric reduction	Sea level reduction*	Corrected direction with zero initial	Adjusted direction*
<i>Wood Island Light House, 1868</i>	<i>0 00 00.00</i>			<i>0 00 00.00</i>	
<i>Washman Rock Daybeacon</i>	<i>84 19 51.8</i>				
<i>Phillip Rock Daybeacon</i>	<i>286 08 06.8</i>				
<i>Angles on Pg. 9. - Vol. "Location of Aids" - Sheets 11163 + 11159</i>					

\* These columns are for office use and should be left blank in the field.

Station: Ken

State: Maryland

Chief of party: C. V. H.

Date: 1917

Computed by: O. P. S.

Observer: C. V. H.

Instrument: No. 168

Checked by: W. F. R.

OBSERVED STATION	Observed direction	Eccentric reduction	Sea level reduction	Corrected direction with zero initial	Adjusted direction
	° ' "	" "	"	° ' "	" "
Chevy .....	0 00 00.00	- 7.31		0 00 00.00	
Tank west of Δ Dulce .....	29 03 37.0	-1 09.8		29 02 34.5	
Ken (center), 3.469 meters .....	176 42				
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