5970

Diag. on Diag. Ch. No. 1204-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

# DESCRIPTIVE REPORT

Type of Survey: Air Photographic Planimetric Map

Field No. ..... Office No. T-5970

LOCALITY

State: Maine

General locality: Casco Bay

Locality: Ragged Island

Commander Fred. L. Peacock

1942

CHIEF OF PARTY

LIBRARY & ARCHIVES

DATE: Jan 24-1947

5970

8-1870-1 (1)

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. T-5970

REGISTER NO.

State Maine

General Locality Casco Bay

Locality Ragged Island

Scale 1:10,000 Date of survey Photographs taken 10/17/41 & 10/20/41-Supplemented by field inspection of May, 1942

~~Surveyed~~ by Air Photographic Party No. 2

Chief of party Fred. L. Peacock

Field Inspected by Lieuts. H. O. Fortin & R. C. Bolstad Supervision of Lieut. Comdr. C. D. Meaney, Commanding "SS Lydonia"

Inked by Roger P. Lathrop

Heights in feet above ..... to ground to tops of trees

Contour, Approximate contour, Form line interval ..... feet

Instructions dated January 12, 1942 and April 1, 1942, 19....

Remarks: Project HT-272B

GPO 266853

DATA RECORD T-5970

PHOTOGRAPHS

| Number | Date | Time | Scale | Altitude | Stage of Tide |
|---|---|---|---|---|---|
| 6713 | 10/17/41 | 10:54a.m. | 1:10,000 | Unknown | 4.4'above M.L.W. |
| 6760-63 | 10/17/41 | 12:13p.m. | 1:10,000 | Unknown | 1.8'above M.L.W. |
| 6805-09 | 10/17/41 | 1:07-1:14p.m. | 1:10,000 | Unknown | 0.6'above M.L.W. |
| 6811-12 | 10/17/41 | 1:15-1:22p.m. | 1:10,000 | Unknown | 0.5'above M.L.W. |
| 6837-40 | 10/17/41 | 1:44-1:48p.m. | 1:10,000 | Unknown | 0.2'above M.L.W. |
| 7038 | 10/20/41 | 9:24a.m. | 1:10,000 | Unknown | 10.0'above M.L.W. (1.2' above M.H.W.) |

Tide from predicted table for Lowell Cove, Orr Isl. Mean Range 8.8'; Spring Range 10.1'.

Reference Station, Portland, Maine

Camera: U. S. Coast & Geodetic Survey, nine lens Camera; Focal Length 8¼". Negatives on file in Washington Office.

SUPPLEMENTAL SURVEYS

Graphic Control Sheets------F.L.Peacock--------Season of 1941
Hydrographic Survey---------F.L.Peacock--------Season of 1941
Field Inspection--Lieut.Comdr.C.D.Meaney, Commanding "SS Lydonia"
Lieut. H.O.Fortin
Lieut. R.C.Bolstad----------May 1942
Name Investigation----------None

GENERAL INFORMATION

Chief of Party----------F.L.Peacock----------
Projection by----------Washington Office-------April 6,1942
Projection Checked by----Washington Office-------April 6,1942
Control Plotted by----------W.E.Schmidt----------May 9,1942
Control Checked by--------J.E.Sunderland----------May 19,1942
Control Pricked by--W.E.Schmidt & R.P.Lathrop--------May 1942
Radial Plot by----------W.E.Schmidt----------June 1942
Radial Points Pricked by----W.E.Schmidt----------June 1942
Additional Radial Points Pricked by---R.P.Lathrop---June 1942
Hydrographic Signals Pricked by-------R.P.Lathrop---June 1942
Shoreline inked by (rough draft)------R.P.Lathrop---June 1942
Shoreline checked by--------W.E.Schmidt----------August26,'42
Scale----------1:10,000
Time required to detail shoreline & Interior--5 working days
The details on T-5970 are of the date of the Photographs, supplemented by field inspection of May 1942
An overlay sheet has been made for this map drawing.

## STATISTICS

Area (land)----------1 square Mile
Shoreline----------12.7 Statute Miles

## REFERENCE STATION

Ragged Island ~~Triangulation,~~ 1854 ~~1933~~ North American 1927(adj.)

| | | | |
|---|---|---|---|
| Latitude | 43° 43' | 40.129" | 1238.5 m.(613.3) |
| Longitude | 69° 56' | 16.035" | 358.9 m.(984.0) |

Maine System of Plane Coordinates, West Zone

$x = 560,502.36$

$y = 326,102.28$

SPECIAL REPORT
~~RADIAL PLOTS FOR T-5967 To T-5974 INCLUSIVE~~
CASCO BAY -- MAINE
U.S.A.

Preliminary Preparations

The 1:10,000 Scale plots to be discussed in this report cover the area included by Map Drawings T-5967 to T-5974 inclusive.

All lists of published triangulation stations, were thoroughly investigated, including U. S. Geological Survey lists. A special list of these stations was then made for each of the above sheets and filed in a folder. A folder was made for each map drawing and in this was kept all necessary notes, etc. All old stations (natural objects) were adjusted from the North American Datum to the North American Datum 1927 by the proper datum differences. The list of lost stations in Special Publications No.46 for Maine was at first ignored, but due to Lieut. H. O. Fortin's special efforts in the investigation of these lost stations and his partial recovery of them made it possible to use many for control, although he recommended that they be considered lost. All triangulation stations were plotted and checked.

Preliminary work on the 1:10,000 scale photographs such as selecting and pricking secondary control points, establishing flight lines, pricking triangulation stations, and pricking the principal points or mechanical centers, was indicated by drawing the proper radial line or circle with Johnston's white ink.

There were sixty-eight office photographs and fifty-one field inspection photographs covering this project.

All graphic control along the West side of this project was transferred from its available source to the map drawings and used in laying these ~~photo-~~plots. ~~graphs~~. Descriptions of this type of control were noted on the map drawings.

Directional flight lines were located and drawn on all the photographs, and cross flight lines were added to supplement them in cases where such procedure was considered advantageous.

Common points from a previous project of Casco Bay on the West were transferred to these map drawings and were indicated by a circle drawn in white ink.

The 1:10,000 scale projections which were received from the Washington Office were examined for distortion. No appreciable distortion was noticed.

The intersections of grid lines were drawn in acid ink (black) and their coordinates noted along the limits of the projection sheets. Degrees and minutes of longitude and latitude were also noted in black acid ink along the edges of the projection sheets. An individual radial plot was then run for each of the above mentioned map drawings for the purpose of locating the centers of the photographs and establishing a few secondary control points, especially where there existed a scarcity of basic control or where this basic control was considered weak. This was noticeable east of Longitude 69°-46' and north of Latitude 43°-45'-47' to the northern latitude limit of T-5974. These secondary points were shown with a double white circle on the photographs.

No templates were used in laying these plots. The photographs were oriented directly under the projection sheets. The radial lines were drawn on the projection sheets through the points selected on the office photographs.

Common points of adjoining sheets were established as the plots were carried forward. These points were rigidly held.

Triangulation stations that were pricked on the office photographs from the field inspection notes, but proved to be inaccurate and could not be refined, were marked over with crayon or noted in white ink as to their accuracy on the office photographs. All other stations were held 100% or tangent. Lieut. H. O. Fortin's investigation of old house and chimney foundations was very helpful.

Quite a few of the old stations that had been previously published in Special Publications No.46 as lost were used, due to this inspection. Other old stations that were visited by Lieut. Fortin and were in doubt were checked by photo compilation. This doubt generally existed when one or more chimneys were in the immediate location of the station and there was no description. After these old stations had been checked by two or more photographs along their respective radial lines they were assumed to be correct and additional plots were carried forward under this assumption. This will be mentioned in the individual report of each sheet.

A majority of the radial intersections gave a common intersection for three or four radial lines when the common points so pricked were well defined.

The usual practice of showing green circles for two cuts or weak intersections and blue or purple circles for three cuts or more for very good intersections was followed when establishing minor detail points. The secondary points established were shown with a double blue or double purple circle. The green, purple or blue circles refer to the projection sheet.

No tilt computations were found necessary in order to proceed with the plots for these map drawings although some tilt was noticed.

The center masks of the photographs for this section of Casco Bay were used in many cases to obtain a third or fourth cut and generally proved to be much better than photographs previously sent to this office. It was noted however, that in the wing prints the junctions are still in disagreement in some cases.

The scale of the photographs was in close agreement to the scale of the map drawings.

As additional lists of United States Engineer's Stations were received by this office, pertaining to the Kennebec River, they were immediately plotted on the Projection sheets. The Field Inspection party did not visit all of the United States Engineer's Stations. A few United States Engineer's Stations recovered by the field party were not plotted on the projection sheet because this office did not have the geographic positions. These exceptional cases will be noted in the individual reports of each sheet.

Triangulation stations shown in red acid ink on the projection sheets were transferred from adjoining sheets. Triangulation stations shown in green acid ink were transferred from celluloid tracings of graphic control sheets. The graphic control previously mentioned was also transferred from these sheets.

There were very few intersections which had a large triangle of error, but in such cases due regard was given to the strength of the intersection as well, as the probable error in the radial line or the point so pricked.

The principal point traverse method was used in carrying the plots forward in the sections that were considered weak.

In some cases, the marked triangulation stations as pricked on the Field Inspection photographs, proved to be inaccurate. This was probably due to heavy foliage shown on the photographs. An attempt was made to prick the correct place on the office prints from the field prints and pricking notes or by examination under the stereoscope. This proved unsuccessful. However, most of the area included in this project, except as previously stated, was adequately controlled by natural objects located by triangulation.

Respectfully submitted,

Walter E. Schmidt
Principal Photogrammetric Aide

Approved, Sept. 9, 1942

L. W. Swanson, Lieutenant
U. S. Coast & Geodetic Survey

Approved and Forwarded

Fred. L. Peacock
Officer-in-Charge
Air Photographic Party No.2

DESCRIPTIVE REPORT
TO ACCOMPANY
AIR PHOTOGRAPHIC SURVEY SHEET NO. T-5970
CASCO BAY
STATE OF MAINE

Date of this report August 28, 1942

INSTRUCTIONS:

This rough draft map drawing is a part of Project HT-272, instructions for which are dated January 12, 1942 and April 1, 1942

FIELD INSPECTION:

Field Inspection of this area was done by Lieut. H. O. Fortin and Lieut. R. C. Bolstad, May 1942, of the party of Lieut. Comdr. C. D. Meaney commanding ship "SS Lydonia"

PHOTOGRAPHS:

The nine lens photographs were taken with the U. S. Coast & Geodetic Survey, nine lens camera.

SCALE:

The scale of the photographs was in close agreement with the scale of the map drawing.

CONTROL:

Control used on this map drawing consisted of U. S. Coast & Geodetic Survey triangulation stations and U. S. Coast & Geodetic recoverable topographic and hydrographic stations.

U.S.C. & G. S. TRIANGULATION STATIONS

The triangulation stations listed below are within the detailed limits of this map drawing:

| | |
|---|---|
| Ragged Island | 1854-~~1933~~ |
| Markus | 1933 |
| Beef | 1933 |
| Jamison Ledge Beacon | 1911-~~1933~~ |

The triangulation stations listed below, outside the detailed limits of this map drawing, were also used to control plot:

| | |
|---|---|
| Bald Head | 1854-1911 |
| Gillies | 1933 |
| Robinsons Rock 2 | 1933, r 1934 |
| Robinsons Rock | 1854 |

CONTROL: (cont'd)

| | |
|---|---|
| Starr | 1933 |
| Will | 1933 |
| Quohog | 1933 |
| Elm | 1933 |
| Jenny | 1933 |
| Long ledge | 1933 |
| Sheep | 1933 |
| Harpswell Baptist Church Spire | 1933 |
| Bailey Island windmill | 1933 |
| Orr Island Lowell Cove Pt. House Chimney | 1933 |
| Goudy Ledge beacon | 1911, r 1933 |
| Bailey Island South end chimney at center of green roofed house | 1933 |
| Bailey Island South end white bungalow east gable | 1933 |

RECOVERABLE HYDROGRAPHIC & TOPOGRAPHIC STATIONS:

| | |
|---|---|
| Bull | 1933 |

Note: Flagstaff--shown N. of Lat. 43°-43' & W. of Long. 69°-59' as landmark on chart 1204. No record from previous charts or field surveys. Not shown on chart 315 which covers same area. This landmark would have been shown on T-5963 if records had been available.

Triangulation stations shown in green acid ink have been pricked from graphic control sheets.

Triangulation stations shown in red acid ink were transferred from adjoining map drawings on which they were plotted.

All graphic control, which was located by the party of F. L. Peacock in 1941 and previously submitted to this office for copy, was transferred to this map drawing by the usual method of matching projection lines and pricking. Recoverable stations were shown with 2½mm. circle and non-recoverable with 1½mm. circle.

Common radial points from a previous project of Casco Bay, compiled by this office, were transferred to this map drawing and shown by a white circle.

RADIAL PLOT:

Refer to the foregoing special report of the radial plots for map drawings T-5967, T-5974 inclusive, ~~which is submitted with this report in the appendix~~. Photographs with appreciable tilt were labeled.

DETAIL:

The shoreline and adjacent areas were detailed in accord-

DETAIL: (cont'd)

ance with the instructions for the planimetric surveys compiled from aerial photographs.

The light line has been used to indicate the limits of rock ledge and has also been labeled.

Some bluff has been shown by ordinary dirt-bluff symbol to save time, with a notation that the bluff is rock. Very few bluffs were indicated on the field inspection photographs. All bluffs shown on this map drawing were observed and located by stereoscopic examination. All isolated rocks located by field inspection as baring between M.L.W. and approximately 1' above M.H.W. were, where possible, located by the radial plot. The amount of baring was noted if field inspected. The curves for the tides were drawn in order to indicate the amount of baring referred to M.L. or M.H.W. These rocks were shown by the rock a-wash symbol and dotted circle. Rocks a-wash at M.H.W. or bared at 1' above M.H.W. were in some cases too large to indicate with the rock a-wash symbol as referred to the 1:10,000 scale. They were therefore outlined accordingly with a heavy black acid ink line. Most of these rocks were outcropping sections of surrounding ledges.

some transfered as * to H-6809, to accentuate rock in close by drography G.F.d.

Since there was very little interior detail within the limits of this map drawing, it was thought advisable to smooth draft this detail in conjunction with the shoreline.

There is a house on Ragged Island but this was obliterated because a 2½mm. black acid ink circle was used to indicate a Recoverable Hydrographic station in the immediate vicinity of this house.

After this map drawing was completed and sent to the Washington Office, the Hydrographic party, now working in this area, was in disagreement with the shoreline as detailed on this map drawing. The map drawing was recalled to this office and rechecked. It was found, that part of this error in the shoreline was due to a too literal interpretation of a letter received from Lieut. R. C. Bolstad concerning the M.H.W.line.

Quote from Lieut. R. C. Bolstad's letter, "It has been found true (with only very few exceptions) that the M.H.W. line on the rocky shore is the line of demarcation between the light (white) and dark ledge rock. The rock covered by water has taken on a dark shade (sea growth) while the rock above M.H.W. appears to be clean. There have been some cases (as on Brown Cow Island) where the rock itself is dark and this contrast is not so pronounced." However, from partial tracings from the above mentioned Hydrographic party's boat sheet, the soundings are still in disagreement with the M.H.W. line as detailed on this map drawing. It is felt, that no other correction can be made by this party.

RECOVERABLE HYDROGRAPHIC AND TOPOGRAPHIC STATIONS:

Two recoverable stations appear on this map drawing. Position for station Bull, 1933, was submitted to this party on form 28B.

The other station, a west gable of a white house on Ragged Island, was located by the radial plot and submitted on form 524 in the appendix.

LANDMARKS FOR CHARTS:

No landmarks were recommended by the field inspection party.

GEOGRAPHIC NAMES:

Geographic names for this map drawing are listed on form M-234 in the appendix. No field inspection was submitted to this office of geographic names. LH 1946.

COMPARISONS WITH PREVIOUS SURVEYS:

No previous surveys were furnished to this party for comparisons.

JUNCTIONS:

No check on junctions east, south or west of this sheet was necessary. Junction with T-5969 on the north is in good agreement.

RECOMMENDATIONS FOR FUTURE SURVEYS:

This sheet is believed to be complete in all details of importance for charting and no additional surveys are required.

The probable error of radial points and well-defined

RECOMMENDATIONS FOR FUTURE SURVEYS:

objects along the shoreline is not greater than 0.5mm. The error of inland radial points and detail of importance is not greater than 1.0mm.

Respectfully submitted,

Roger P. Lathrop
Photogrammetric Aide

Reviewed by

W. E. Schmidt
Walter E. Schmidt
Pr. Photogrammetric Aide

Approved Sept. 9, 1942

L. W. Swanson
L. W. Swanson, Lieutenant
U. S. Coast & Geodetic Survey

Approved & Forwarded

Fred. L. Peacock
Fred. L. Peacock
Officer-in-Charge
Baltimore Field Office

GEOGRAPHIC NAMES

Survey No. T-5970

| Name on Survey | On Chart No. 1204 A, | On previous survey No. B, | On U. S. quadrangle Maps Eight Point Me. C, | From local information D | On local Maps E | P. O. Guide or Map F | Rand McNally Atlas G | U. S. Light List H | Chart 315 K | |
|---|---|---|---|---|---|---|---|---|---|---|
| Round Rock | x | | | | 437 | 699 | | | x | 1 |
| Cedar Ledge | x | | x | | " | | | | x | 2 |
| Middle Ground Rock | x | | | | " | | | | x | 3 |
| Ragged Island | x | | x | | 437 | 699 | | | x | 4 |
| Saddleback Ledge | x | | | | " | | | | x | 5 |
| Bold Dick ~~Rock~~ | x | | x | | " | | | | * | 6 |
| Sisters | x | | x | | " | | | | x | 7 |
| White Bull | x | | x | | 437 | 699 | | | x | |
| E. Brown Cow | x | | * | | 437 | 698 | | | x | 9 |
| Mark Island | x | | | | " | | | | x | 10 |
| Jamison Ledge | x | | | | " | | | | x | 11 |
| ~~Wyman Ledge~~ | x | Not noted on map drawing because ledge could not be seen on photograph and consequently was not detailed. | | | | | | | | 12 |
| Flag Island | | | | | 437 | 698 | | | x | 13 |
| Black Snake Ledge | (one word) | | | | 437 | 699 | | | x | 14 |
| Mark Island Ledge | | | | | 437 | 699 | | | x | 15 |
| Little Bull Ledge | | | | | " | | | | x | 16 |
| David Castle | | | | | " | | | | x | 17 |
| Yellow Rock | | | | | " | | | | x | 18 |
| Pond Island Ledges | | | | | " | | | | x | 19 |
| | | | | | | | | | | 20 |
| Pond Island | | | | | 437 | 699 | | | | 21 |
| Ram Island | | | | | " | | | | | 22 |
| Casco Bay | | | | | U.S.C.&G.S. | | | | | 23 |
| | | | | | | | | | | 24 |
| | | | | | | | | | | 25 |
| | | | | | | | | | | 26 |
| | | | | | | | | | | 27 |

Names underlined in red approved
L. Heck 1/24/46
GEOGRAPHIC NAMES

M 234

| | Remarks | Decisions |
|---|---|---|
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | * Known as Bold Dick on Chart 315 | |
| 7 | | |
| | | |
| 9 | * Shown on quad as Br. Cow | |
| 10 | | |
| 11 | | |
| 12 | | Covered at low water |
| 13 | | |
| 14 | | |
| 15 | | |
| | | |
| 17 | | |
| 18 | | |
| 19 | | |
| 20 | | |
| 21 | | |
| 22 | | |
| 23 | | |
| 24 | | |
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| 26 | | |
| 27 | | |

# NAUTICAL CHARTS BRANCH

## SURVEY NO. T 5970

### Record of Application to Charts

| DATE | CHART | CARTOGRAPHER | REMARKS |
|---|---|---|---|
| 3/11/43 | Reconst 315 | J F Walker | Before ~~After~~ Verification and Review |
| 9/11/46 | Reconst 314 | Everett-Walker | ~~Before~~ After Verification and Review |
| 5-19-47 | 315 | Curtis & Albert | ~~Before~~ After Verification and Review |
| | | | Before After Verification and Review |
| | | | Before After Verification and Review |
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M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

Division of Photogrammetry

Review of Shoreline Survey T-5970

Radial Plot:

There was ample control and the radial plot has been accepted without verification in this office.

Field Inspection and Detailing:

Field inspection was adequate and detailing complete. The limits of rock ledges were shown with a solid line and without the ledge symbol. The ledge symbol has been added during the review and the limits of ledges revised and extended to agree with the contemporary hydrographic surveys.

Comparison with Previous Surveys:

T-5970 is complete and adequate to supersede those sections of the following older surveys which it covers:

| | | |
|---|---|---|
| T-465 | 1854-56-57 | 1:10,000 |
| T-466 | 1854-57-65 | 1:10,000 |
| T-847 | 1860-61 | 1:10,000 |

Comparison with Graphic Control Surveys:

| | | |
|---|---|---|
| T-6928b | 1942 | 1:10,000 |
| T-6929b | 1942 | 1:10,000 |

T-5970 is in agreement with the above graphic control surveys which were used as control for compilation of T-5970.

Comparison with Hydrographic Surveys:

| | | |
|---|---|---|
| H-6806 | 1942 | 1:10,000 |
| H-6809 | 1942 | 1:10,000 |
| H-6810 | 1942 | 1:10,000 |

The reviewer in comparing the manuscript with the hydrographic surveys has extended and added rock ledges and added rocks awash from the hydrographic sheet. This procedure was unnecessary and ~~but~~ is not being followed ~~changed~~ at the date of this writing.

At the time of the review, one rock awash at the northeast shore of Ragged Island which was compiled from the photographs has not been added to the hydrographic sheet.

Comparison with Nautical Charts:

T-5970 was applied to chart ~~1215~~ 315 prior to this review. However, it is noted that the higher water portion of Cedar Ledge is not shown on chart ~~1215~~ 315 and should be added.

Applied to charts 314 and 315 prior to this review.

Reviewed under the direction of Ralph M. Berry.

Review report prepared by B. G. Jones from reviewer's notes - 11-46.

APPROVED BY:

B.G. Jones 11/46
B. G. Jones, Technical Asst.
Div. of Photogrammetry

H.R. Edmonston
Chief, Nautical Chart Br.
Division of Charts

K.T. Adams
Chief, Div. of Photogrammetry

C.K. Green
Chief, Div. of Coastal Surveys