TP-01116

TP-01116

NOAA FORM 76-35
(6-80)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

DESCRIPTIVE REPORT

THIS MAP EDITION WILL NOT BE FIELD EDITED

Map No.	*Edition No.*
TP-01116	

Job No.
CM-8101

Map Classification
CLASS III (FINAL)

Type of Survey
SHORELINE

LOCALITY

State
MAINE

General Locality
PENOBSCOT BAY

Locality
EGGEMOGGIN REACH

19 82 TO 19

REGISTERED IN ARCHIVES

DATE

* U.S. GOVERNMENT PRINTING OFFICE 1980-665-115

NOAA FORM 76-36A (3-72) — U. S. DEPARTMENT OF COMMERCE, NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.

DESCRIPTIVE REPORT - DATA RECORD

TYPE OF SURVEY: [X] ORIGINAL [ ] RESURVEY [ ] REVISED

SURVEY TP. 01116

MAP EDITION NO. (1)

MAP CLASS III (Final)

JOB PH. CM-8101

PHOTOGRAMMETRIC OFFICE: Coastal Mapping Unit, Atlantic Marine Center, Norfolk, VA

OFFICER-IN-CHARGE: A. Y. Bryson, CDR

LAST PRECEEDING MAP EDITION — TYPE OF SURVEY: [ ] ORIGINAL [ ] RESURVEY [ ] REVISED; JOB PH. ____; MAP CLASS ____; SURVEY DATES: 19__ TO 19__

I. INSTRUCTIONS DATED

1. OFFICE		2. FIELD	
Aerotriangulation	February 2, 1983	Field (Horizontal Control)	March 24, 1982
Office (Compilation)	February 1, 1984		

II. DATUMS

1. HORIZONTAL:	[X] 1927 NORTH AMERICAN	OTHER (Specify)
2. VERTICAL:	[X] MEAN HIGH-WATER; [X] MEAN LOW-WATER; [ ] MEAN LOWER LOW-WATER; [ ] MEAN SEA LEVEL	OTHER (Specify)
3. MAP PROJECTION: Transverse Mercator Projection		4. GRID(S): STATE: Maine; ZONE: East
5. SCALE: 1:20,000		STATE: ; ZONE:

III. HISTORY OF OFFICE OPERATIONS

OPERATIONS		NAME	DATE
1. AEROTRIANGULATION METHOD: Analytic	BY	Solbeck	Sept. 1983
	LANDMARKS AND AIDS BY	Solbeck	Sept. 1983
2. CONTROL AND BRIDGE POINTS METHOD: Xynetics	PLOTTED BY	McLemore	Jan. 1984
	CHECKED BY	McLemore	Jan. 1984
3. STEREOSCOPIC INSTRUMENT COMPILATION	PLANIMETRY BY	R. Kravitz	Feb. 1984
	CHECKED BY	F. Mauldin	Feb. 1984
INSTRUMENT: Wild B-8	CONTOURS BY	N.A.	
SCALE: 1:20,000	CHECKED BY	N.A.	
4. MANUSCRIPT DELINEATION	PLANIMETRY BY	R. Kravitz	April 1984
	CHECKED BY	F. Margiotta	May 1984
METHOD: Smooth Drafted	CONTOURS BY	N.A.	
	CHECKED BY	N.A.	
SCALE: 1:20,000	HYDRO SUPPORT DATA BY	R. Kravitz	April 1984
	CHECKED BY	F. Margiotta	May 1984
5. OFFICE INSPECTION PRIOR TO FINAL REVIEW	BY	F. Margiotta	May 1984
6. APPLICATION OF FIELD EDIT DATA	BY	None	
	CHECKED BY	None	
7. COMPILATION SECTION REVIEW	BY	F. Margiotta	May 1984
8. FINAL REVIEW CLASS III	BY	J. Hancock	June 1984
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH	BY	J. Hancock	June 1984
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH	BY	C. Lewis	AUG 1984
11. MAP REGISTERED - COASTAL SURVEY SECTION	BY	R.S. KORNSPAN	FEB 1985

NOAA FORM 76-36A — SUPERSEDES FORM C&GS 181 SERIES

*U.S. GOVERNMENT PRINTING OFFICE-1977-765-092

NOAA FORM 76-36B
(3-72)

U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

TP-01116

COMPILATION SOURCES

1. COMPILATION PHOTOGRAPHY

CAMERA(S): Wild RC 10 (C) (C=88.47mm)

TIDE STAGE REFERENCE
- [X] PREDICTED TIDES *
- [ ] REFERENCE STATION RECORDS
- [X] TIDE CONTROLLED PHOTOGRAPHY **

TYPES OF PHOTOGRAPHY LEGEND
- (C) COLOR
- (P) PANCHROMATIC
- (I) INFRARED

TIME REFERENCE
ZONE: Eastern — [X] STANDARD
MERIDIAN: 75th — [ ] DAYLIGHT

NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE
82 C(C) 3605 - 3610*	6-27-82	09:28	1:50,000	0.4 below MLW
82 C(C) 3660 - 3669*	6-27-82	10:05	1:50,000	0.5 below MLW
83 C(I) 9642 - 9643**	9-29-83	08:49	1:50,000	1.3 above MLW
83 C(I) 9654 - 9457**	9-29-83	09:02	1:50,000	1.2 above MLW
83 C(I) 9670 - 9671**	9-29-83	09:21	1:50,000	1.2 above MLW
82 C(I) 3953 - 3959**	7-04-82	09:56	1:50,000	0.7 below MHW
82 C(I) 4109 - 4115**	7-10-82	14:07	1:50,000	0.9 below MHW
				Mean Tide Range = (9.7ft)

REMARKS *Compilation/bridging photographs based on predicted tide data. **Tide coordinated MHW and MLW photographs based on actual tide data. All photographs are referenced to the temporary tide gage at Castine.

2. SOURCE OF MEAN HIGH-WATER LINE:

The Mean High Water Line was compiled from office interpretation of the compilation/bridging color photographs using stereo instrument methods. The tide coordinated black and white infrared contact photographs were used to assist in the interpretation of the MHW line.

3. SOURCE OF MEAN LOW-WATER OR MEAN LOWER LOW-WATER LINE:

The Mean Low Water Line was compiled graphically from the ratioed black and white tide coordinated MLW infrared photographs.

4. CONTEMPORARY HYDROGRAPHIC SURVEYS *(List only those surveys that are sources for photogrammetric survey information.)*

SURVEY NUMBER	DATE(S)	SURVEY COPY USED	SURVEY NUMBER	DATE(S)	SURVEY COPY USED

5. FINAL JUNCTIONS

NORTH	EAST	SOUTH	WEST
TP-01112	No survey	TP-01119	TP-01115

REMARKS

NOAA FORM 76-36B
(3-72)

*U.S. GOVERNMENT PRINTING OFFICE:1977-765-092

NOAA FORM 76-36C
(3-72)

U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

TP-01116

HISTORY OF FIELD OPERATIONS

I. [X] FIELD INSPECTION OPERATION (PREMARKING) [ ] FIELD EDIT OPERATION

OPERATION		NAME	DATE
1. CHIEF OF FIELD PARTY	Photo Party 62	R. S. Tibbetts	May 1982
2. HORIZONTAL CONTROL	RECOVERED BY	J. M. Koster	May 1982
	ESTABLISHED BY	J. M. Koster	May 1982
	PRE-MARKED OR IDENTIFIED BY	J. M. Koster	May 1982
3. VERTICAL CONTROL	RECOVERED BY	N.A.	
	ESTABLISHED BY	N.A.	
	PRE-MARKED OR IDENTIFIED BY	N.A.	
4. LANDMARKS AND AIDS TO NAVIGATION	RECOVERED (*Triangulation Stations*) BY	N.A.	
	LOCATED (*Field Methods*) BY	N.A.	
	IDENTIFIED BY	N.A.	
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION: [ ] COMPLETE [ ] SPECIFIC NAMES ONLY [X] NO INVESTIGATION — BY		
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY	None	
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY	N.A.	

II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED: Premarked (Paneled)

2. VERTICAL CONTROL IDENTIFIED: N.A.

PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION
82 C(C) 3607	BROOKLYN CHURCH SPIRE, 1861 (Sub. Sta. paneled)		

3. PHOTO NUMBERS (*Clarification of details*)

N.A.

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

N.A.

PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME

5. GEOGRAPHIC NAMES: [ ] REPORT [X] NONE

6. BOUNDARY AND LIMITS: [ ] REPORT [X] NONE

7. SUPPLEMENTAL MAPS AND PLANS

N.A.

8. OTHER FIELD RECORDS (*Sketch books, etc.* **DO NOT** *list data submitted to the Geodesy Division*)

The following records are field data submitted for the entire project:
Three forms 277 (Tide Staff Location Books); Six NOAA Forms 76-77 (Leveling Record Books - Tide Station); and NOAA Forms 76-53 (CSI Cards)
2 Field observation books (NOAA form 76-52 & USC&GS form 252)

☆ U.S. GPO: 1977-765-092/1105 Region 6

NOAA FORM 76-36D
(3-72)

U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

TP-01116

RECORD OF SURVEY USE

I. MANUSCRIPT COPIES

COMPILATION STAGES			DATE MANUSCRIPT FORWARDED	
DATA COMPILED	DATE	REMARKS	MARINE CHARTS	HYDRO SUPPORT
Compilation complete	May 1984	Class III Manuscript	None	None
Final Review, Class III	June 1984	Final Class III Map No field edit performed	AUG 2 2 1984	AUG 2 2 1984

II. LANDMARKS AND AIDS TO NAVIGATION

1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH

PAGES ~~NUMBER~~	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED	REMARKS
2		AUG 2 2 1984	Landmarks and aids for charting

2. ☐ REPORT TO MARINE CHART DIVISION, COAST PILOT BRANCH. DATE FORWARDED: _____
3. ☐ REPORT TO AERONAUTICAL CHART DIVISION, AERONAUTICAL DATA SECTION. DATE FORWARDED: _____

III. FEDERAL RECORDS CENTER DATA

1. ☐ BRIDGING PHOTOGRAPHS; ☒ DUPLICATE BRIDGING REPORT; ☐ COMPUTER READOUTS.
2. ☒ CONTROL STATION IDENTIFICATION CARDS; ☐ FORM NOS ~~XX~~ SUBMITTED BY FIELD PARTIES. 76-40
3. ☒ SOURCE DATA *(except for Geographic Names Report)* AS LISTED IN SECTION II, NOAA FORM 76-36C. ACCOUNT FOR EXCEPTIONS:

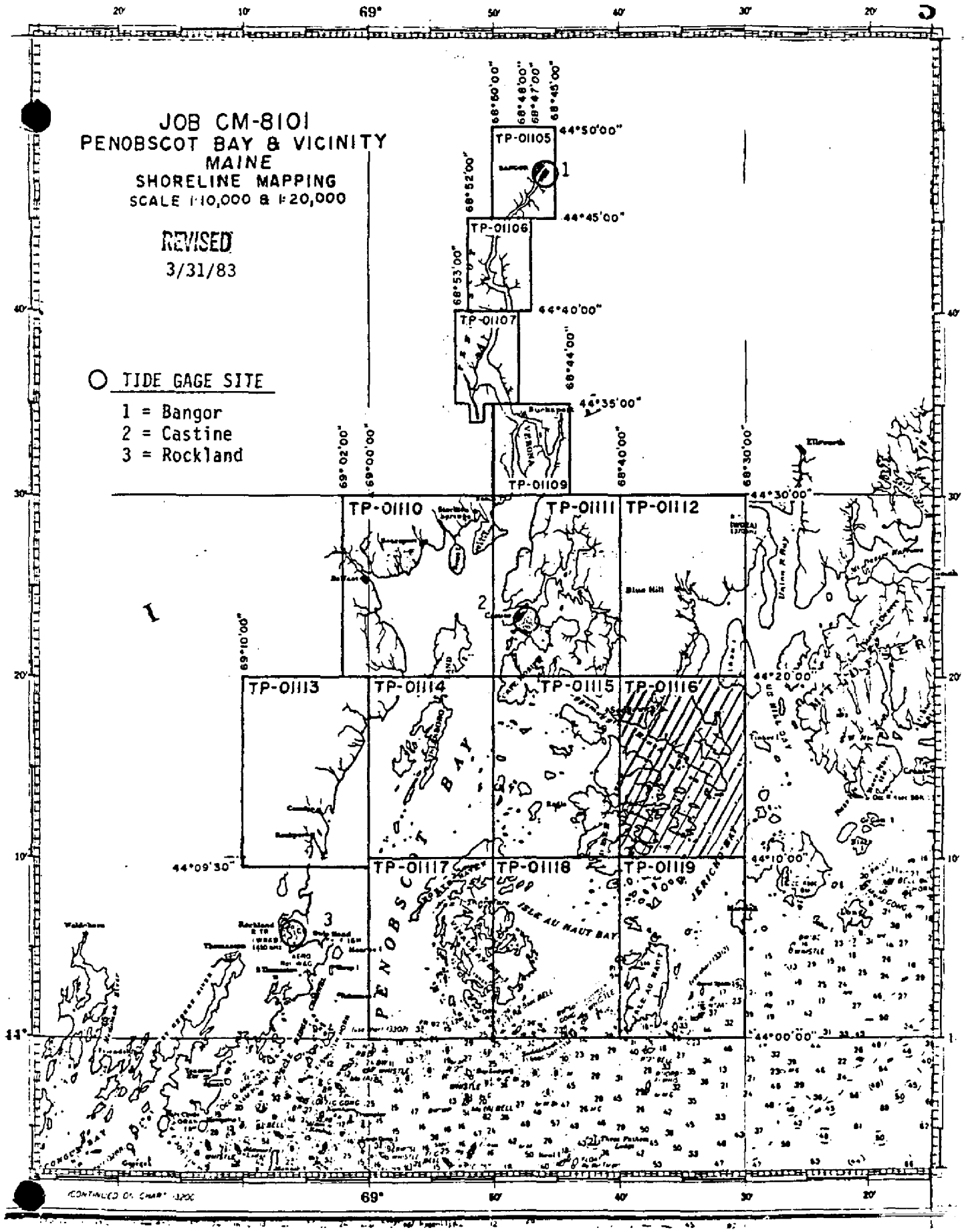
4. ☐ DATA TO FEDERAL RECORDS CENTER. DATE FORWARDED: _____

IV. SURVEY EDITIONS *(This section shall be completed each time a new map edition is registered)*

	SURVEY NUMBER	JOB NUMBER	TYPE OF SURVEY
SECOND EDITION	TP - _____ (2)	PH - _____	☐ REVISED ☐ RESURVEY
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	MAP CLASS
			☐ II. ☐ III. ☐ IV. ☐ V. ☐ FINAL
THIRD EDITION	SURVEY NUMBER	JOB NUMBER	TYPE OF SURVEY
	TP - _____ (3)	PH - _____	☐ REVISED ☐ RESURVEY
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	MAP CLASS
			☐ II. ☐ III. ☐ IV. ☐ V. ☐ FINAL
FOURTH EDITION	SURVEY NUMBER	JOB NUMBER	TYPE OF SURVEY
	TP - _____ (4)	PH - _____	☐ REVISED ☐ RESURVEY
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	MAP CLASS
			☐ II. ☐ III. ☐ IV. ☐ V. ☐ FINAL

NOAA FORM 76-36D

*U.S. GOVERNMENT PRINTING OFFICE:1977-765-092


JOB CM-8101
PENOBSCOT BAY & VICINITY
MAINE
SHORELINE MAPPING
SCALE 1:10,000 & 1:20,000
REVISED
3/31/83
TIDE GAGE SITE
1 = Bangor
2 = Castine
3 = Rockland
TP-01105
TP-01106
TP-01107
TP-01109
TP-01110
TP-01111
TP-01112
TP-01113
TP-01114
TP-01115
TP-01116
TP-01117
TP-01118
TP-01119
PENOBSCOT BAY
ISLE AU HAUT BAY
JERICHO BAY
68°50'00"
68°48'00"
68°47'00"
68°45'00"
68°52'00"
68°53'00"
68°44'00"
69°02'00"
69°00'00"
68°40'00"
68°30'00"
69°10'00"
44°50'00"
44°45'00"
44°40'00"
44°35'00"
44°30'00"
44°20'00"
44°10'00"
44°09'30"
44°00'00"
69°
50'
40'
30'
20'
10'
40'
30'
20'
10'
44°

SUMMARY TO ACCOMPANY
DESCRIPTIVE REPORT

TP-01116

This 1:20,000 scale final Class III shoreline map is one of six maps designated as Part III, the last segment, of project CM-8101, Penobscot Bay and Vicinity, Maine. Aerotriangulation and compilation operations for the entire 14 map project were segmented in order to meet production schedules.

The purpose of this project is to provide current charting information for nautical charting maintenance and to furnish support data for hydrographic operations.

This final Class III map portrays a portion of shoreline defined by Jericho Bay and Blue Hill Bay. The map also features the passageway along the northeast coast of Deer Isle known as Eggemoggin Reach.

Photo coverage was adequately provided by natural color and tide coordinated infrared photographs. All photographs were taken with the Wild RC-10(C) camera at 1:50,000 scale. Color photographs required for aerotriangulation and compilation were taken June 1982. Tide coordinated black-and-white photographs were furnished for the MLW line delineation and to assist in the MHW line interpretation process. The MLW photographs were taken September 1983 and the MHW photographs were taken July 1982.

Field work prior to compilation consisted of installing and monitoring tide gages for the tide coordinated photography, and the recovery, establishment, and identification (premarking) of horizontal control necessary for aerotriangulation. This activity was completed August 1982.

Analytic aerotriangulation was adequately provided by the Washington Science Center. Aerotriangulation operations also included ruling the base manuscripts, determining ratio values for photographs and locating visible navigational aids.

Compilation, based upon photo interpretation, was performed by the Coastal Mapping Unit at the Atlantic Marine Center in May 1984. Compilation included the use of MHW and MLW tide coordinated infrared photographs. Refer to the Compilation Report for specific use of this photography.

Field edit will not be accomplished for this map.

Final review was performed at the Atlantic Marine Center in June 1984. A Chart Maintenance Print was prepared and forwarded to the Marine Chart Branch. Also, a Notes to Hydrographer print was prepared for hydrographic activity.

This Descriptive Report contains all pertinent information used to compile this final Class III map. The original base manuscript and all related data were forwarded to the Washington Science Center for final registration.

FIELD INSPECTION

TP-01116

There was no field inspection prior to compilation. Field work accomplished was limited to installing and monitoring tide gages for the tide-coordinated photography, and the recovery, establishment and identification (premarking) of horizontal control necessary for aerotriangulation.

PHOTOGRAMMETRIC PLOT REPORT
CM 8101
PENOBSCOT BAY AND VICINITY, MAINE
PART TWO

Area Covered

The area covered by this report is that portion of the Penobscot Bay shoreline surrounding Isle Au Haut Bay and Jerico Bay, as well as the eastern portion of Penobscot Bay. Six 1:20,000-scale manuscripts: TP-01112 and TP-01114 through TP-01119 cover this area.

Method

Four strips of 1:50,000-scale color photographs were bridged by standard analytic aerotriangulation methods. The horizontal control was premarked. Tie points were used to ensure the adequate junctioning between all bridging strips. Once bridged, a block adjustment covering the entire project ensured that this portion of the project junctioned well with that previously completed. This adjustment provided the final ground positions for those points used in the compilation of the 1:20,000-scale manuscripts, as well as positions used to control the 1:30,000-scale bridging photographs.

The 1:30,000-scale color bridging photographs were used to locate a series of premarked images which are to be used for hydrographic surveys in this area. Of a total 155 premarked panels, 137 were actually located and measured over the entire project.

The 1:50,000-scale black and white infrared photographs were ratioed to supplement the compilation photographs. Ratio values have been determined.

The manuscripts were plotted on the Coradomat 21 using the Maine East Zone (Transverse Mercator).

Adequacy of Control

The control provided was adequate for the compilation of the 1:20,000-scale manuscripts. For a more accurate overall adjustment, including the determination of positions of the hydrographic survey marks, additional control throughout the central islands of Penobscot Bay would have been beneficial. The control fit well within the National Standards of Map Accuracy.

Supplemental Data

USGS quadrangles were used to provide vertical control for the strip and block adjustments.

Nautical charts were used to locate aids and landmarks.

Photography

The coverage, overlap, and quality of photographs proved adequate for completion of the project. The original film negatives were used in this project.

Submitted by:

Stephen H. Solbeck
Cartographer

Approved and Forwarded:

Don O. Norman
Chief, Aerotriangulation Unit

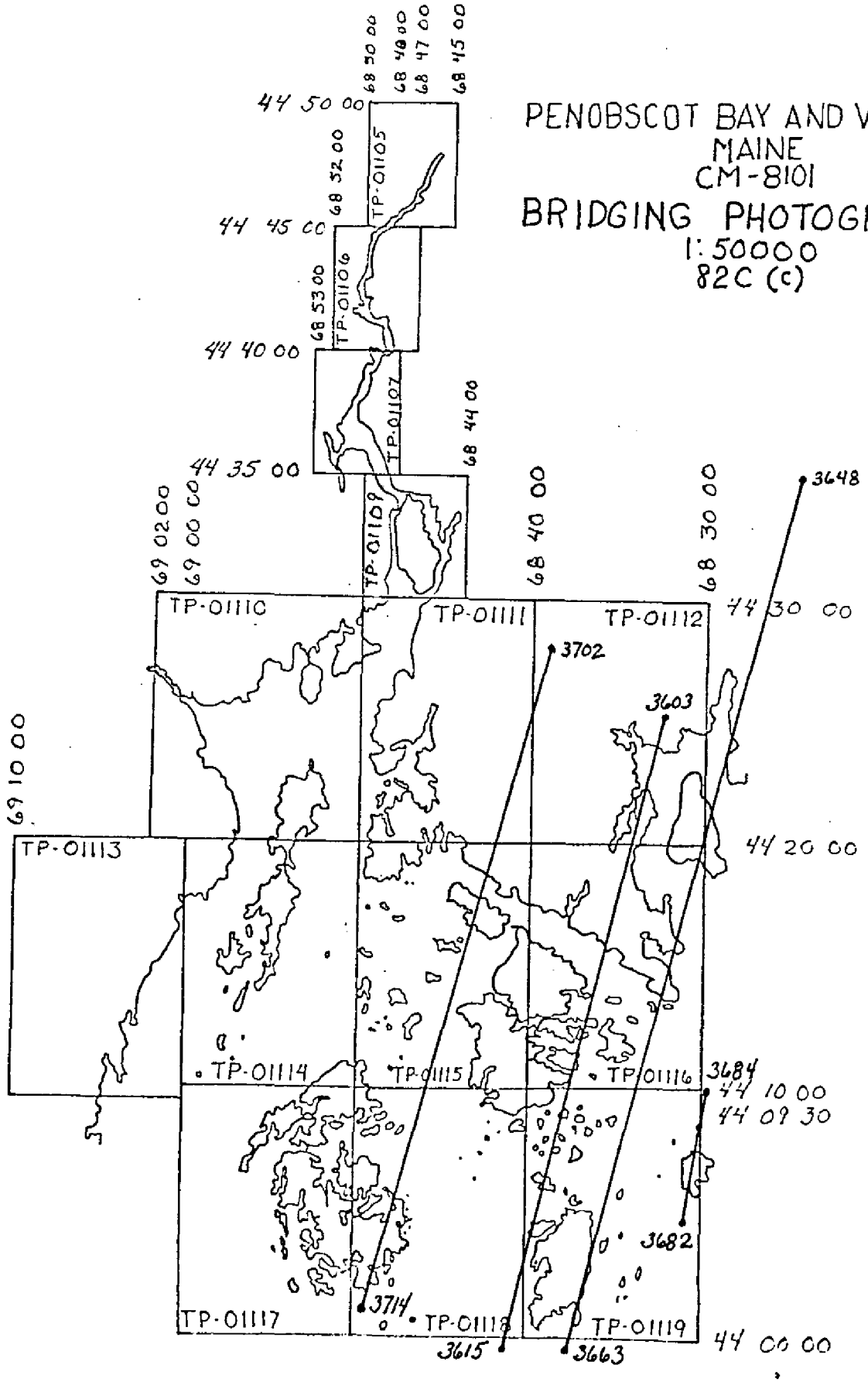
CM-8101
PENOBSCOT BAY AND VICINITY
FIT TO CONTROL
1:50,000
BLOCK ADJUSTMENT POSITIONS

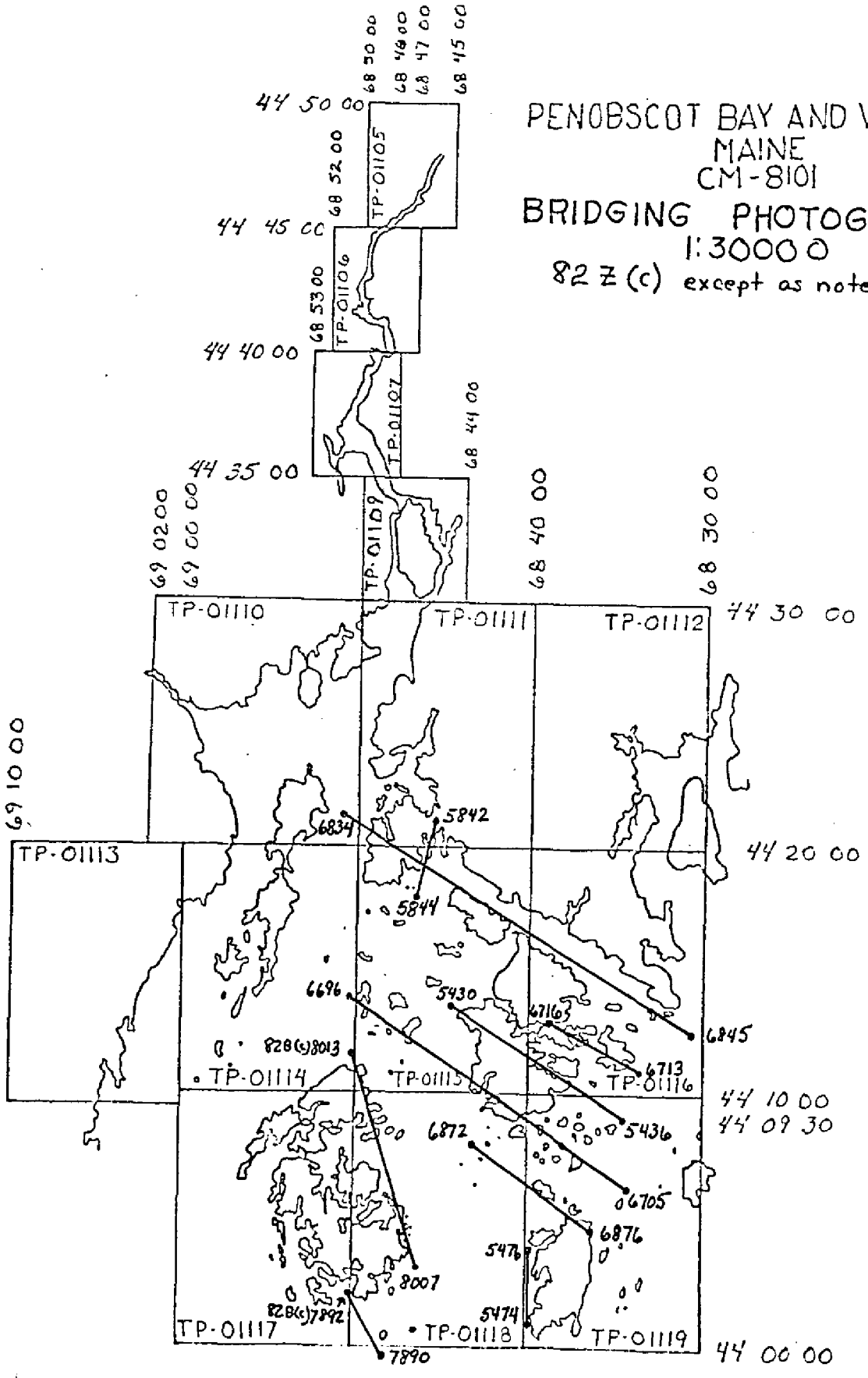
STATION NAME		VALUES IN FEET	
		x	y
Dyer (1861) Sub Point	729101▲	0	+.01
West Stockton White Church Spire	825100	+2.01	-1.15
Sub Point	825101▲	0	0
Sparks House Chimney, Sub Point	827101▲	0	0
Rockland Breakwater Lighthouse	570100	+2.29	+1.55
Sub Point	570101▲	0	0
Mount Battle Memorial Observatory			
Sub Point	573101▲	-.01	-.01
Temperance	576100▲	-.01	-.01
Kittredge Rm 1	592101▲	+.01	0
Heron Neck Lighthouse, Sub Point	724101▲	0	+.01
Castine Orthodox Church Spire	742100	+1.74	+1.60
Sub Point	742101▲	0	0
Blue Hill Lookout Tower			
Sub Point	702101▲	-.03	+.01
Stubbs, Sub Point	587101▲	0	-.01
West Stonington Church Spire	709100	-2.47	+1.26
Sub Point	709101▲	-.41	-.05
Brooklyn Church Spire	607100	-.41	+.20
Sub Point	607101▲	-.04	+.05
Base	614100▲	+.03	+.09
Rocky, Sub Point 2	649101▲	+.06	+.07
Bangor Radio Station WLBE			
Tallest Mast of Two	591141	+1.64	+1.83
Bangor, Unitarian Church Spire	590144	+3.42	-1.08
Bangor Tank, Flagpole	590143	+3.57	+1.82
Bangor Dow AFB, Standpipe	590149	+3.50	+2.63
Bangor Radio Station WABI			
East Mast	590147	-.06	+1.76
West Mast	590146	+2.89	+.82
Orrington Church Spire	588141	+4.49	-.30
Winterport Church Clock Spire	586141	+.19	+3.74
Steel Ledge Monument Light			
(Steel Ledge Beacon)	579151	-4.03	+8.73
Stone Beacon	734151	-2.53	+5.98
Duck Trap Church Spire	576141	+.85	+6.24
Negro Island Lighthouse	573151	+5.04	-4.86
Camden White Brick Stack	573141	+3.57	-.06
Rockport School House Clock Spire	572141	+.87	-2.59
Rockport White Square Cupola	572142	+1.78	+2.23
The Graves Light	573152	-.93	-1.53
Indian Island Lighthouse	572144	-.58	-.22

North Haven Water Tower	727149	-.77	+.89
Odens Ledge Beacon	827151	-6.47	-1.84
Fort Point Ledge Beacon	731501	-2.99	-1.48
Coombs Point Water Tank	823141	-2.47	+1.93
N.E. Point Light	573153	-1.33	-10.94
Bucksport Silver Standpipe	828142	-3.82	+1.80
Bucksport E. Maine Conference Seminary Cupola	828139	-2.23	+.77
Hamden Congressional Church Spire	589141	+9.82	+3.16
Naskeag Church Cupola	657141	+3.74	+5.30
Eagle Island Lighthouse	708144	+1.70	+4.00
Goose Rocks Lighthouse	711152	+2.29	+.53
Widows Island, Center of House	711141	+6.89	-8.54
Vinal Haven, Watertower	714141	+.58	-.41
Deer Isle, N.W. Harbor Church Spire	609141	-4.11	+6.68
Whitmore Neck, Belfry in School	610141	-.54	-.35
Stonington, Water Tower	611142	-1.46	-1.43
Deer Island Thorofare Lighthouse	611151	+1.68	-1.95
Isle Au Haut, Church Spire	612141	-7.36	+7.22
Saddleback Ledge, Lighthouse	614151	-3.95	+2.89
Blue Hill Bay, Lighthouse	656150	+1.93	-3.93
Vinal Haven, Channel Rock Beacon	711551	+1.52	+2.13

▲ POINTS HELD IN THE BLOCK ADJUSTMENT

PENOBSCOT BAY AND VICINITY
MAINE
CM-8101
BRIDGING PHOTOGRAPHS
1:50000
82C (c)




PENOBSCOT BAY AND VICINITY
MAINE
CM-8101
BRIDGING PHOTOGRAPHS
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82 Z (c) except as noted
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44 40 00
44 35 00
44 30 00
44 20 00
44 10 00
44 09 30
44 00 00
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69 00 00
69 10 00
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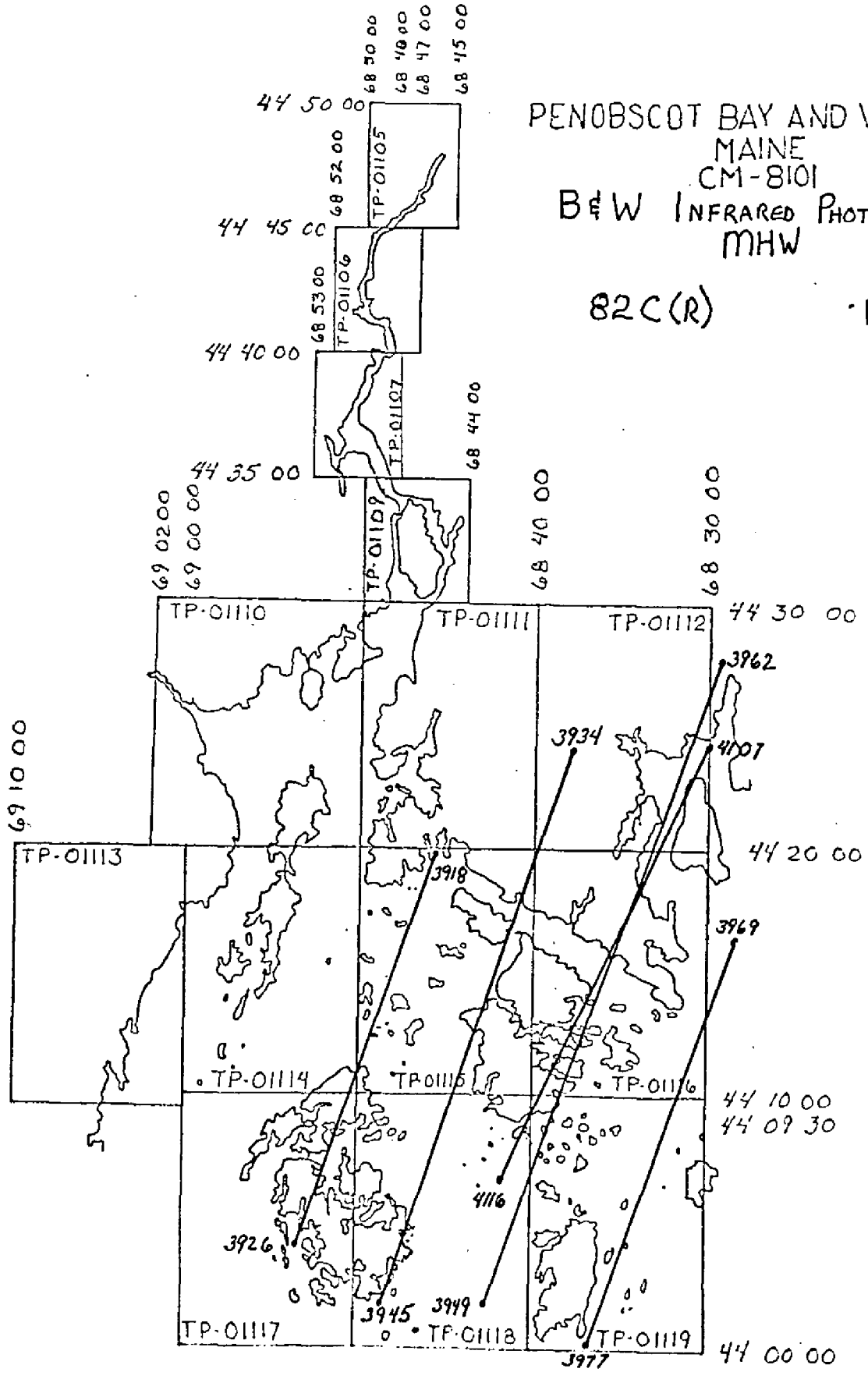
PENOBSCOT BAY AND VICINITY
MAINE
CM-8101
B&W INFRARED PHOTOGRAPHS
MHW
82C(R)
1:50000
44 50 00
44 45 00
44 40 00
44 35 00
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44 20 00
44 10 00
44 09 30
44 00 00
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69 02 00
69 00 00
69 10 00
TP-01105
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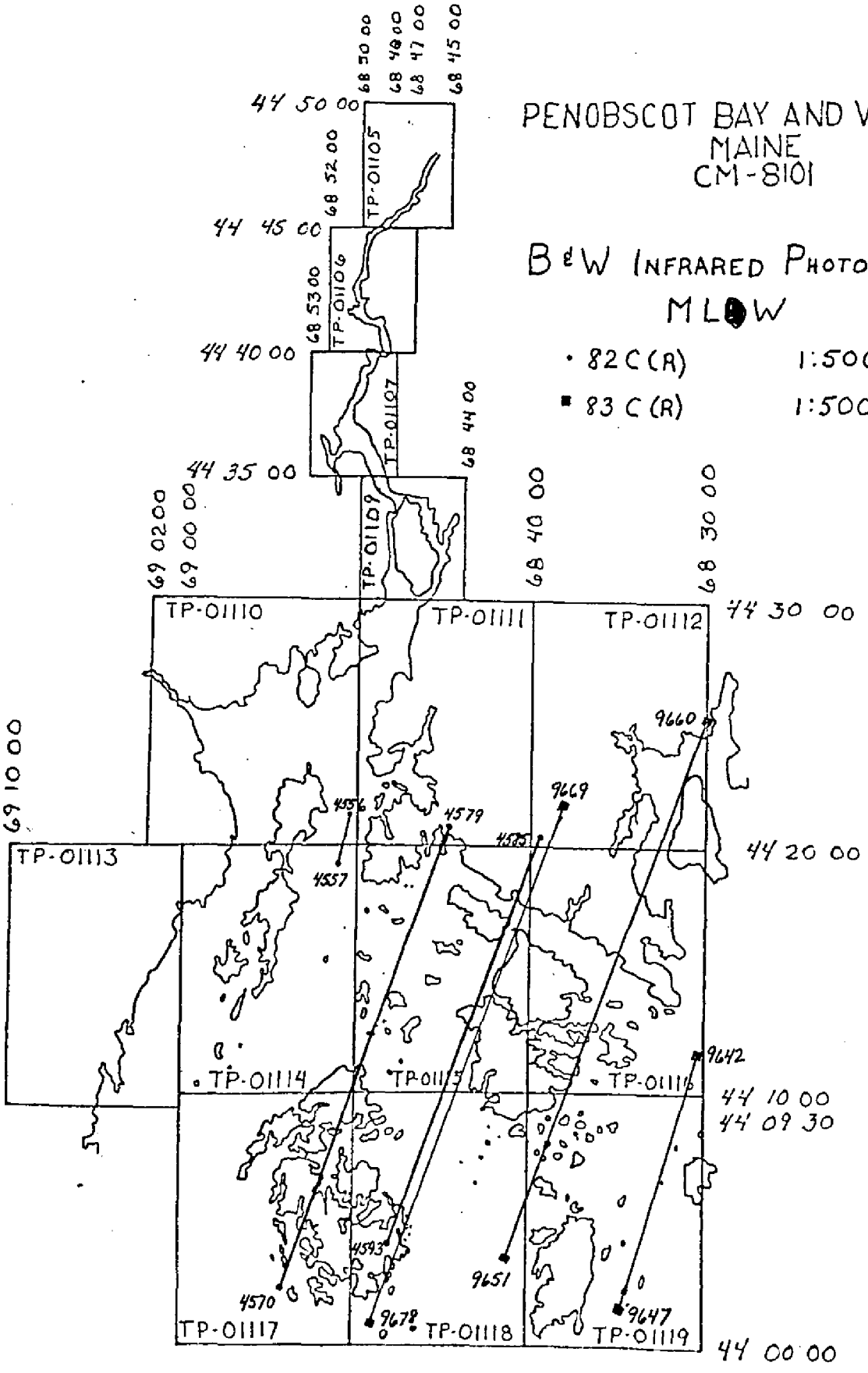
PENOBSCOT BAY AND VICINITY
MAINE
CM-8101
B & W INFRARED PHOTOGRAPHS
MLW
• 82 C (R) 1:50000
■ 83 C (R) 1:50000
68 50 00
68 48 00
68 47 00
68 45 00
44 50 00
68 52 00
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68 53 00
TP-01106
44 40 00
TP-01107
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4585
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TP-01115
TP-01116
44 10 00
44 09 30
4593
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4570
9678
9647
TP-01117
TP-01118
TP-01119
44 00 00

RATIO VALUES
CM-8101
PENOBSCOT BAY AND VICINITY, MAINE

1:50,000	Color Bridging	Ratio Value
82-C(C)	3603 thru 3615	2.537
	3648 thru 3662	2.530
	3682 thru 3684	2.527
	3705 thru 3714	2.547
1:50,000 Black and White Infrared		
82-C(R)	3933 thru 3945	2.522
	3949 thru 3960	2.238
	3969 thru 3977	2.540
	4106 thru 4116	2.584
	3895 thru 3897	2.550
	3918 thru 3928	2.549
MLW		
82-C(R)	4562 thru 4564	2.524
	4569 thru 4579	2.538
	4585 thru 4593	2.534
83-C(R)	9642 thru 9647	2.523
	9651 thru 9660	2.527
	9669 thru 9678	2.520

NOAA FORM 76-41
(6-75)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

DESCRIPTIVE REPORT CONTROL RECORD

MAP NO.	JOB NO.	GEODETIC DATUM	ORIGINATING ACTIVITY
TP-01116	CM-8101	N.A. 1927	Coastal Compilation Unit, AMC, Norfolk, VA

STATION NAME	SOURCE OF INFORMATION (Index)	AEROTRIANGULATION POINT NUMBER	COORDINATES IN FEET STATE Maine ZONE East	GEOGRAPHIC POSITION φ LATITUDE λ LONGITUDE	REMARKS
WHITMORE NECK, BELFRY ON SCHOOL, 1934	QUAD 440683 STA 1164	610141	x=	φ 44°11'09.959"	
			y=	λ 68°37'23.655"	
EGG ROCK BEACON, 1907	QUAD 440683 STA 1058	658528	x=	φ 44°11'06.227"	
			y=	λ 68°30'34.238"	
NASKEAG, CHURCH CUPOLA, 1934	QUAD 440683 STA 1107	657141	x=	φ 44°14'05.045"	
			y=	λ 68°31'58.069"	
BROOKLYN CHURCH SPIRE, 1861	QUAD 440683 STA 1019	607100	x= 481,878.46	φ 44°16'01.414"	
			y= 158,102.50	λ 68°34'09.054"	
			x=	φ	
			y=	λ	
			x=	φ	
			y=	λ	
			x=	φ	
			y=	λ	
			x=	φ	
			y=	λ	
			x=	φ	
			y=	λ	
			x=	φ	
			y=	λ	

COMPUTED BY	DATE	COMPUTATION CHECKED BY	DATE
LISTED BY R. Kravitz	DATE 2/16/84	LISTING CHECKED BY F. Margiotta	DATE April 1984
HAND PLOTTING BY	DATE	HAND PLOTTING CHECKED BY	DATE

SUPERSEDES NOAA FORM 76-41, 2-71 EDITION WHICH IS OBSOLETE.

17

COMPILATION REPORT
TP-01116

31 - DELINEATION

Delineation was accomplished using stereo instrument and graphic compilation methods. Instrument compilation was used to delineate shoreline and interior detail based upon office interpretation of the 1:50,000 scale bridging/compilation color photographs. Tide coordinated MHW infrared photographs were used to assist in interpretation of the shoreline delineation. Tide coordinated MLW infrared ratio photographs were used to graphically compile the approximate mean low waterline. Control for graphic delineation was provided by the instrument compilation of coastal detail and common image points.

All photographs used to compile the map are listed on NOAA Form 76-36B. The color compilation photography was adequate. The quality of the infrared photography was poor with regards to identifying precise image points common to the compilation photographs. Consequently, ratio infrared MLW photographs were primarily controlled by instrument delineation of shoreline detail.

32 - CONTROL

The horizontal control was adequate. Refer to the Photogrammetric Plot Report, Part II.

33 - SUPPLEMENTAL DATA

None.

34 - CONTOURS AND DRAINAGE

Contours are not applicable to the project. Drainage was compiled by office interpretation of the photographs.

35 - SHORELINE AND ALONGSHORE DETAILS

The mean high waterline was compiled from office interpretation of the compilation color photographs. The tide coordinated MHW infrared photographs were used to complement the shoreline delineation. No MHW infrared ratio photographs were provided.

Although the scale of photography was (1:50,000), an attempt was made to distinquish between the ledge and rocky areas. Foreshore areas of scattered rocks were generally represented by individual rocks. The term "RKY" was used to classify foreshore areas of dense rocks and boulders in lieu of numerous rock symbols. The ledge symbol was used in areas of rock density and where the ledge was apparent.

TP-01116

36 - OFFSHORE DETAILS

Offshore detail was compiled by instrument methods as described in item #31. Both the 1:50,000 scale MHW and MLW photographs were used to assist in interpretation.

In order to graphically compile the approximate mean low waterline as described in item #31, the MLW infrared ratio photographs were ratioed as follows:

83 C(I) 9642	- 9643	2.523 times
83 C(I) 9655	- 9657	2.527 times
83 C(I) 9670	- 9671	2.520 times

37 - LANDMARKS AND AIDS

There are 5 charted landmarks and 5 charted navigational aids within the mapping limits of this manuscript. Among these, 5 landmarks and 1 aid were either located or verified photogrammetrically. Appropriate information was prepared on the 76-40 forms and submitted with this map.

38 - CONTROL FOR FUTURE SURVEYS

None.

39 - JUNCTIONS

Refer to the Data Record Form 76-36B, Item 5 of the Descriptive Report.

40 - HORIZONTAL AND VERTICAL ACCURACY

See item #32.

46 - COMPARISON WITH EXISTING MAPS

A comparison was made with the following U.S. Geological Survey quadrangles: Brooklin, Maine, dated 1981, scale 1:24,000; Sargentville, Maine, dated 1981, scale 1:24,000; and Deer Isle, Maine, dated 1942, scale 1:62,500.

47 - COMPARISON WITH NAUTICAL CHARTS

A comparison was made with the following NOS Charts: 13302, 14th edition, dated February 26, 1983, scale 1:80,000; 13305, 24th edition, dated February 13, 1982, scale 1:40,000; 13306, 19th edition, dated February 13, 1982, scale 1:40,000; 13310, 19th edition, dated February 20, 1982, scale 1:40,000; 13312, 17th edition, dated May 2, 1981,

scale 1:80,000; 13313, 16th edition, dated May 3, 1980, scale 1:40,000; 13315, 14th edition, dated January 14, 1984, scale 1:20,000; and 13316, 16th edition, dated June 19, 1982, scale 1:40,000.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY

None.

ITEMS TO BE CARRIED FORWARD

None.

Submitted by,

Robert R. Kravitz
Cartographic Technician
April 3, 1984

Approved,

James L. Byrd, Jr.
Chief, Coastal Mapping Unit

REVIEW REPORT TP-01116
SHORELINE

61. GENERAL STATEMENT

Aerotriangulation and compilation operations for this project were segmented in order to meet production schedules. This map represents one of six 1:20,000 scale maps designated as Part III for project CM-8101, *Penobscot Bay and Vicinity, Maine.*

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS

Not applicable.

63. COMPARISON WITH MAPS OF OTHER AGENCIES

A comparison was made with the following U.S.G.S. Quadrangles: Brooklin, Maine, scale 1:24,000, dated 1981; Sargentville, Maine, scale 1:24,000, dated 1981; and Deer Isle, Maine, scale 1:62,500, dated 1942.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS

Prior to final review, no contemporary hydrographic survey was accomplished in the area common to this map.

Hydrographic support data was prepared and submitted for proposed hydrographic activity.

65. COMPARISON WITH NAUTICAL CHARTS

A comparison was made with the following NOS Charts: 13313, 16th edition, dated May 3, 1980, 1:40,000 scale; 13316, 16th edition, dated June 19, 1982, 1:40,000 scale; 13312, 17th edition, dated May 2, 1981, 1:80,000 scale; and 13315, 8th edition, dated January 14, 1984, 1:20,000 scale.

66. ADEQUACY OF RESULTS AND FUTURE SURVEYS

This map complies with the Project Instructions, and meets the requirements for National Standards of Map Accuracy.

Submitted by,
Jerry L. Hancock
Jerry L. Hancock
Final Reviewer

Approved for forwarding,
Billy H. Barnes
Billy H. Barnes
Chief, Photogrammetric Section, AMC

Approved,
Robert W. Ridley
Chief, Photogrammetric Section, Rockville

Ronald K. Brewer
Chief, Photogrammetry Branch,
Rockville

May 2, 1984

GEOGRAPHIC NAMES

FINAL NAME SHEET

CM-8101 (Penobscot Bay, Maine)

TP-01116

Allen Cove
Babson Island
Batchelder Brook
Bayberry Point
Bear Island
Benjamin River
Billings Cove
Black Island
Blake Cove
Blake Point
Blue Hill Bay
Blue Hill Neck
Bridges Point
Brooklin
Buckmaster Ledgers
Buckmaster Neck
Burntland Pond
Campbell Island
Cape Carter
Carter Point
Cat Cove
Center Harbor
Channel Rock
Chatto Island
Closson Cove
Closson Ledges
Coles Point
Conary Cove
Conary Island
Conary Island Head
Crow Island
Deep Cove
Deep Hole
Deer Isle
Devils Head
Duffy Cove
Duffy Point
Eastern Mark Island
Eastern Point
East Side Cove
Eaton Brook
Eatons Point
Eggemoggin Reach
Egg Rock
Fish Creek
Flye Point
Flye Point (locality)
Flye Point Ledge
Freese Island
Gander Island
Goose Island
Grays Cove
Greenlaw Cove
Greenlaw Neck
Green Ledge
Halftide Rock
Harbor Island
Harriman Point
Haskell Ledge
Hatch Cove
Haven
Haycock Rock
Hen Island
Herrick Bay
Herricks Ledges
High Head
Hog Island
Holt Pond
Inner Harbor
Jericho Bay
Jims Point
Joes Island
Joyce Point
Lazygut Islands
Lazygut Ledge
Little Babson Island
Little Sheep Island
Long Island
Long Ledge
Lower Torrey Island
Mahoney Island
Mahoney Ledge
Meadow Brook
Means Point
Mountainville
Naskeag
Naskeag Harbor
Naskeag Point

North Brooklin
Northwest Cove
Oak Point
Oceanville
Pickering Cove
Poplar Point
Potato Island
Reach(locality)
Roundys Brook
Salt Marsh
Salt Pond
Seal Rock
Sedgwick
Sellers Island
Shabby Island
Sheep Island (1)
Sheep Island (2)
Sheep Rock
Sheldrake Ledge
Smuttynose Island
South Deer Isle (locality)
Southeast Harbor
Flye Island
Long Cove

Southern Cove (1)
Southern Cove (2)
Stinson Neck
Sunshine
The Boulders
The Triangles
Thompson Cove
Tinker Ledges
Torrey Castle
Torrey Ledge
Upper Torrey Island
Warren Point
Webb Cove
Wells Cove
West Brooklin
Western Cove
Whaleback Ledge
Whale Brook
White Island
Whitmore Neck

Approved by:

Charles E. Harrington

Charles E. Harrington
Chief Geographer
Nautical Charting Division

NOAA FORM 76-40 (8-74)
Replaces C&GS Form 567.

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

NON-FLOATING AIDS OR LANDMARKS FOR CHARTS

ORIGINATING ACTIVITY
- ☐ HYDROGRAPHIC PARTY
- ☐ GEODETIC PARTY
- ☐ PHOTO FIELD PARTY
- ☒ COMPILATION ACTIVITY
- ☐ FINAL REVIEWER
- ☐ QUALITY CONTROL & REVIEW GRP.
- ☐ COAST PILOT BRANCH

(See reverse for responsible personnel)

☒ TO BE CHARTED ☐ TO BE REVISED ☐ TO BE DELETED

REPORTING UNIT (Field Party, Ship or Office)	STATE	LOCALITY	DATE
Coastal Mapping Unit, AMC, Norfolk, VA	Maine	Penobscot Bay	Apr. 1984

The following objects HAVE ☐ HAVE NOT ☒ been inspected from seaward to determine their value as landmarks.

OPR PROJECT NO.	JOB NUMBER	SURVEY NUMBER	DATUM
	CM-8101	TP-01116	N.A. 1927

CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses)	POSITION LATITUDE ° ′	LATITUDE ″ D.M. Meters	POSITION LONGITUDE ° ′	LONGITUDE ″ D.P. Meters	METHOD AND DATE OF LOCATION (See instructions on reverse side) OFFICE	FIELD	CHARTS AFFECTED
SPIRE	(Brooklyn Church Spire, 1861)	44 16	01.414	68 34	09.054	82 C(C) 3607 6-27-82		13312 13316
SPIRE	At West Brooklyn	44 17	18.5 571	68 37	13.5 300	82 C(C) 3607 6-27-82		13316
BELFRY	(Whitmore Neck Belfry On School, 1934)	44 11	09.959	68 37	23.655	82 C(C) 3609 6-27-82		13312 13313 13315 13316
BELFRY	At Sunshine	44 11	51.7 1595	68 34	55.0 1222	82 C(C) 3609 6-27-82		13312 13313 13315 13316
SPIRE	At Sedgwick	44 18	16.8 519	68 36	52.9 1173	82 C(C) 3606 6-27-82		13316

RESPONSIBLE PERSONNEL		
TYPE OF ACTION	**NAME**	**ORIGINATOR**
OBJECTS INSPECTED FROM SEAWARD		☐ PHOTO FIELD PARTY ☐ HYDROGRAPHIC PARTY ☐ GEODETIC PARTY ☐ OTHER *(Specify)*
POSITIONS DETERMINED AND/OR VERIFIED		FIELD ACTIVITY REPRESENTATIVE
	Robert R. Kravitz	*OFFICE ACTIVITY REPRESENTATIVE*
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES		☐ REVIEWER ☐ QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE

INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'

(Consult Photogrammetric Instructions No. 64.)

OFFICE

I. OFFICE IDENTIFIED AND LOCATED OBJECTS

Enter the number and date (including month, day, and year) of the photograph used to identify and locate the object.

EXAMPLE: 75E(C)6042
8-12-75

FIELD

I. NEW POSITION DETERMINED OR VERIFIED

Enter the applicable data by symbols as follows:

F - Field	P - Photogrammetric
L - Located	Vis - Visually
V - Verified	
1 - Triangulation	5 - Field identified
2 - Traverse	6 - Theodolite
3 - Intersection	7 - Planetable
4 - Resection	8 - Sextant

A. Field positions* require entry of method of location and date of field work.

EXAMPLE: F-2-6-L
8-12-75

*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.

FIELD (Cont'd)

B. Photogrammetric field positions** require entry of method of location or verification, date of field work and number of the photograph used to locate or identify the object.

EXAMPLE: P-8-V
8-12-75
74L(C)2982

II. TRIANGULATION STATION RECOVERED

When a landmark or aid which is also a triangulation station is recovered, enter 'Triang. Rec.' with date of recovery.

EXAMPLE: Triang. Rec.
8-12-75

III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH

Enter 'V-Vis.' and date.

EXAMPLE: V-Vis.
8-12-75

**PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.

NOAA FORM 76-40
(8-74)

Replaces C&GS Form 567.

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

NONFLOATING AIDS ~~AND LANDMARKS~~ FOR CHARTS

ORIGINATING ACTIVITY
- ☐ HYDROGRAPHIC PARTY
- ☐ GEODETIC PARTY
- ☐ PHOTO FIELD PARTY
- ☒ COMPILATION ACTIVITY
- ☐ FINAL REVIEWER
- ☐ QUALITY CONTROL & REVIEW GRP.
- ☐ COAST PILOT BRANCH

(See reverse for responsible personnel)

☒ TO BE CHARTED
☐ TO BE REVISED
☐ TO BE DELETED

REPORTING UNIT (Field Party, Ship or Office)	STATE	LOCALITY	DATE
Coastal Mapping Unit, AMC, Norfolk, VA	Maine	Penobscot Bay	Apr. 1984

The following objects HAVE ☐ HAVE NOT ☒ been inspected from seaward to determine their value as landmarks.

OPR PROJECT NO.	JOB NUMBER	SURVEY NUMBER	DATUM
	CM-8101	TP-01116	N.A. 1927

CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses)	POSITION LATITUDE ° ′	LATITUDE ″ D.M. Meters	POSITION LONGITUDE ° ′	LONGITUDE ″ D.P. Meters	METHOD AND DATE OF LOCATION (See instructions on reverse side) OFFICE	FIELD	CHARTS AFFECTED
DAYBEACON	Egg Rock Daybeacon 8A (Egg Rock Beacon, 1907)	44 11	06.227	68 30	34.238	82 C(C) 3666 6-27-82		13312 13313 13316

RESPONSIBLE PERSONNEL		
TYPE OF ACTION	NAME	ORIGINATOR
OBJECTS INSPECTED FROM SEAWARD		☐ PHOTO FIELD PARTY ☐ HYDROGRAPHIC PARTY ☐ GEODETIC PARTY ☐ OTHER *(Specify)*
POSITIONS DETERMINED AND/OR VERIFIED		FIELD ACTIVITY REPRESENTATIVE
	Robert R. Kravitz	OFFICE ACTIVITY REPRESENTATIVE
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES		☐ REVIEWER ☐ QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE

INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'

(Consult Photogrammetric Instructions No. 64,

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I. OFFICE IDENTIFIED AND LOCATED OBJECTS

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EXAMPLE: 75E(C)6042
8-12-75

FIELD

I. NEW POSITION DETERMINED OR VERIFIED

Enter the applicable data by symbols as follows:

F - Field	P - Photogrammetric
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V - Verified	
1 - Triangulation	5 - Field identified
2 - Traverse	6 - Theodolite
3 - Intersection	7 - Planetable
4 - Resection	8 - Sextant

A. Field positions* require entry of method of location and date of field work.

EXAMPLE: F-2-6-L
8-12-75

*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.

FIELD (Cont'd)

B. Photogrammetric field positions** require entry of method of location or verification, date of field work and number of the photograph used to locate or identify the object.

EXAMPLE: P-8-V
8-12-75
74L(C)2982

II. TRIANGULATION STATION RECOVERED

When a landmark or aid which is also a triangulation station is recovered, enter 'Triang. Rec.' with date of recovery.

EXAMPLE: Triang. Rec.
8-12-75

III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH

Enter 'V-Vis.' and date.

EXAMPLE: V-Vis.
8-12-75

**PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.

☆ U.S.GPO:1975-0-665-080/1155

FORM C&GS-8352 (9-28-83)

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. ____________

INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.
1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

CHART	DATE	CARTOGRAPHER	REMARKS
13302	3-26-85	H. Rodden	Full ~~Part Before~~ After Verification Review Inspection Signed Via
			Drawing No. 31 Examined NO CORR
13316	10-10-84	WJ Fign	Full ~~Part Before~~ After Verification Review Inspection Signed Via
			Drawing No. 22 Added rocks + Foul area
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
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			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.