

TP-01110

TP-01110

NOAA FORM 76-35 (3-76)	
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. TP-01110	Edition No. 1
Job No. CM-8101	
Map Classification CLASS III (FINAL)	
Type of Survey SHORELINE	
LOCALITY	
State MAINE	
General Locality PENOBSCOT BAY	
Locality BELFAST	
1982 TO 19	
REGISTRY IN ARCHIVES	
DATE	

NOAA FORM 76-36A (3-72) U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.		TYPE OF SURVEY <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> RESURVEY <input type="checkbox"/> REVISED	
DESCRIPTIVE REPORT - DATA RECORD		SURVEY TP. <u>01110</u> MAP EDITION NO. <u>(1)</u> MAP CLASS <u>III (FINAL)</u> JOB <u>XPR CM-8101</u>	
PHOTOGRAMMETRIC OFFICE Coastal Mapping Unit Atlantic Marine Center Norfolk, VA OFFICER-IN-CHARGE A. Y. Bryson, CDR		LAST PRECEDING MAP EDITION TYPE OF SURVEY <input type="checkbox"/> ORIGINAL <input type="checkbox"/> RESURVEY <input type="checkbox"/> REVISED JOB PH. _____ MAP CLASS _____ SURVEY DATES: 19__ TO 19__	
I. INSTRUCTIONS DATED			
1. OFFICE		2. FIELD	
Aerotriangulation February 2, 1983 Compilation April 20, 1983		Control March 24, 1982	
II. DATUMS			
1. HORIZONTAL: <input checked="" type="checkbox"/> 1927 NORTH AMERICAN		OTHER (Specify)	
2. VERTICAL: <input checked="" type="checkbox"/> MEAN HIGH-WATER <input checked="" type="checkbox"/> MEAN LOW-WATER <input type="checkbox"/> MEAN LOWER LOW-WATER <input type="checkbox"/> 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 BY METHOD: <u>Analytic</u> LANDMARKS AND AIDS BY		L. Harrod	March 1983
2. CONTROL AND BRIDGE POINTS PLOTTED BY METHOD: <u>Coradomat</u> CHECKED BY		L. Harrod	March 1983
3. STEREOSCOPIC INSTRUMENT PLANIMETRY BY COMPILATION CHECKED BY INSTRUMENT: <u>Wild B-8</u> CONTOURS BY SCALE: <u>1:20,000</u> CHECKED BY		F. Margiotta F. Mauldin, W. McLemore, Jr. NA NA	May-June 1983 May-June 1983
4. MANUSCRIPT DELINEATION PLANIMETRY BY CHECKED BY METHOD: <u>Smooth Drafted</u> CONTOURS BY CHECKED BY SCALE: <u>1:20,000</u> HYDRO SUPPORT DATA BY CHECKED BY		F. Margiotta W. McLemore, Jr. NA NA F. Margiotta W. McLemore, Jr.	June 1983 July 1983 June 1983 July 1983
5. OFFICE INSPECTION PRIOR TO FIELD EDIT Final Review		W. McLemore, Jr.	July 1983
6. APPLICATION OF FIELD EDIT DATA BY		NA	
7. COMPILATION SECTION REVIEW CHECKED BY		W. McLemore, Jr.	July 1983
8. FINAL REVIEW BY		J. Hancock	July 1983
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH BY		J. Hancock	July 1983
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH BY		R. Kelly	Mar. 1984
11. MAP REGISTERED - COASTAL SURVEY SECTION BY		E. DAUGHERTY	NOV 1984

NOAA FORM 76-36B
(3-72)

CM-8101

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

TP-01110

COMPILATION SOURCES

1. COMPILATION PHOTOGRAPHY

CAMERA(S) Wild R.C.-10(C) (C = 88.46 mm)		TYPES OF PHOTOGRAPHY LEGEND		TIME REFERENCE	
TIDE STAGE REFERENCE		(C) COLOR (P) PANCHROMATIC (I) INFRARED		ZONE Eastern	<input checked="" type="checkbox"/> STANDARD
<input checked="" type="checkbox"/> PREDICTED TIDES * <input type="checkbox"/> REFERENCE STATION RECORDS <input checked="" type="checkbox"/> TIDE CONTROLLED PHOTOGRAPHY **				MERIDIAN 75th	<input type="checkbox"/> DAYLIGHT
NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE	
82C(C)3821-3826*	6/27/82	12:48	1:50,000	4.1 above MLW	
82C(C)3562-3564*	6/27/82	08:19	1:50,000	1.0 above MLW	
82C(C)3577-3581*	6/27/82	08:49	1:50,000	0.2 above MLW	
82C(I)3857-3861**	7/2/82	08:06	1:50,000	1.1 below MHW	
82C(I)4238-4240**	7/24/82	08:32	1:50,000	0.7 below MLW	
82C(I)3865-3870**	7/2/82	08:23	1:50,000	1.0 below MHW	
82C(I)4540-4545**	8/22/82	07:54	1:50,000	0.8 below MLW	
82C(I)3901-3903**	7/2/82	08:42	1:50,000	1.1 below MHW	
82C(I)4555-4557**	8/22/82	08:14	1:50,000	0.4 below MLW	
Mean Tide Range = 10.1 ft					

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 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 black and white tide coordinated 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
No Survey	TP-01111	TP-01114	No Survey

REMARKS

NOAA FORM 76-36C
(3-72)CM-8101
TP-01110
HISTORY OF FIELD OPERATIONSU. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEYI. ☒ FIELD INSPECTION OPERATION (Premarking) ☐ FIELD EDIT OPERATION

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY Photo Party 62	Robert S. Tibbetts	5/82
2. HORIZONTAL CONTROL	RECOVERED BY P. B. Walbolt	5/20/82
	ESTABLISHED BY P. B. Walbolt	5/20/82
	PRE-MARKED OR IDENTIFIED BY P. B. Walbolt	5/20/82
3. VERTICAL CONTROL	RECOVERED BY NA	
	ESTABLISHED BY NA	
	PRE-MARKED OR IDENTIFIED BY NA	
4. LANDMARKS AND AIDS TO NAVIGATION	RECOVERED (Triangulation Stations) BY NA	
	LOCATED (Field Methods) BY NA	
	IDENTIFIED BY NA	
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION <input type="checkbox"/> COMPLETE <input type="checkbox"/> SPECIFIC NAMES ONLY BY <input type="checkbox"/> NO INVESTIGATION	NA
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY NA	
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY NA	

II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED		2. VERTICAL CONTROL IDENTIFIED	
Premarked (Paneled)		NA	
PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION
82C(C)3825 82C(C)3581	- West Stockton White CH Spire Sub Sta (Hub A)		

3. PHOTO NUMBERS (Clarification of details)

NA

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

NA

PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME

5. GEOGRAPHIC NAMES: ☐ REPORT ☒ NONE6. BOUNDARY AND LIMITS: ☐ REPORT ☒ NONE

7. SUPPLEMENTAL MAPS AND PLANS

NA

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:

NOAA forms 76-53 (CSI Cards)

Three forms 277 (Tide Staff Location Books)

Six NOAA forms 76-77 (Leveling Record Books - Tide Station)

RECORD OF SURVEY USE

TP-01110

I. MANUSCRIPT COPIES

COMPILATION STAGES			DATE MANUSCRIPT FORWARDED	
DATA COMPILED	DATE	REMARKS	MARINE CHARTS	HYDRO SUPPORT
Final Review, Class III	July 1983	Final Class III Map No field edit performed	Sept. 1983	Sept. 1983

II. LANDMARKS AND AIDS TO NAVIGATION

1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH

NUMBER (pages)	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED	REMARKS
2			Landmarks and Aids to be charted

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 Records indicated below will be forwarded to the Federal Records Center upon completion of the entire project.

1. ☐ BRIDGING PHOTOGRAPHS; ☒ DUPLICATE BRIDGING REPORT; ☐ COMPUTER READOUTS.
 2. ☒ CONTROL STATION IDENTIFICATION CARDS; ☐ FORM NOS 567 SUBMITTED BY FIELD PARTIES.
 3. ☒ SOURCE DATA (except for Geographic Names Report) AS LISTED IN SECTION II, NOAA FORM 76-36C.
 ACCOUNT FOR EXCEPTIONS:

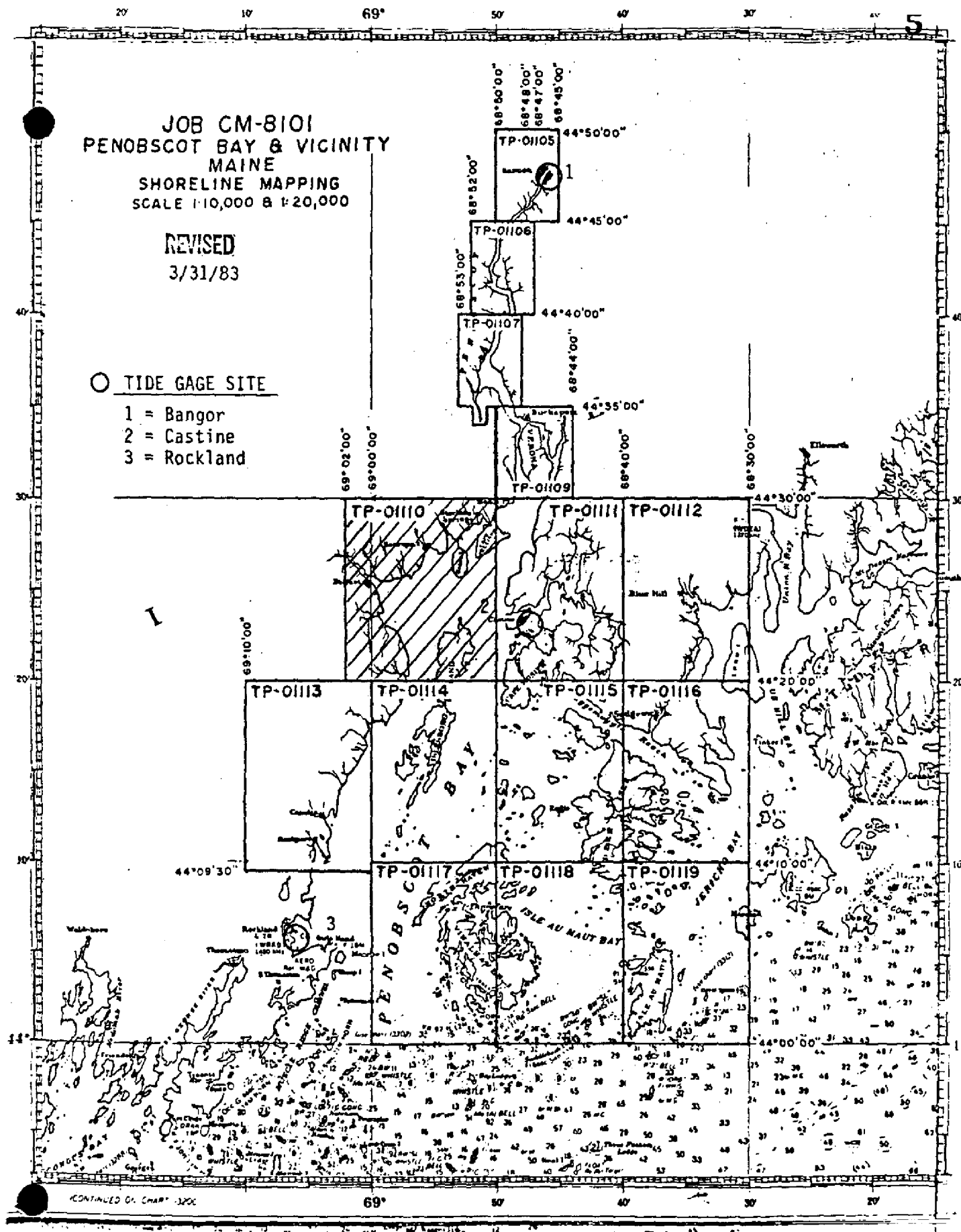
4. ☐ DATA TO FEDERAL RECORDS CENTER. DATE FORWARDED: _____

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

SECOND EDITION	SURVEY NUMBER TP - _____ (2)	JOB NUMBER PH - _____	TYPE OF SURVEY <input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY MAP CLASS <input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	
THIRD EDITION	SURVEY NUMBER TP - _____ (3)	JOB NUMBER PH - _____	TYPE OF SURVEY <input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY MAP CLASS <input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	
FOURTH EDITION	SURVEY NUMBER TP - _____ (4)	JOB NUMBER PH - _____	TYPE OF SURVEY <input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY MAP CLASS <input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	

3/31/83

1 = Bangor
2 = Castine
3 = Rockland



SUMMARY TO ACCOMPANY
DESCRIPTIVE REPORT

TP-01110

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

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

This final Class III map features the shoreline outlined by Belfast Bay, including Sears Island and a northern portion of Islesboro Island.

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. The black and white infrared photographs required for MLW delineation and to complement the establishment of the MHW line were taken July/August 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 July 1983. Compilation included the use of MHW and MLW tide-coordinated infrared photographs. Refer to the Compilation Report for specific usage of this photography.

Field edit has not been accomplished for this map.

Final review was performed at the Atlantic Marine Center in July 1983. A Chart Maintenance Print was prepared and forwarded to the Marine Chart Branch. Also a Notes to Hydrographer print was prepared for hydrographic activity.

SUMMARY TO ACCOMPANY
DESCRIPTIVE REPORT

TP-01110

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-01110

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 One

AREA COVERED

The area covered by this report is the shoreline bordering the Penobscot River, south to Rockport and the northwestern portion of Penobscot Bay. Four 1:10,000 scale manuscripts (TP-01105 through TP-01107 and TP-01109) and four 1:20,000 scale manuscripts (TP-01110, TP-01111, TP-01113, and TP-01114) cover this area.

METHOD

Five 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 these strips. Once bridged, a block adjustment was used to provide the final ground positions for compilation of the 1:20,000 scale manuscripts and for controlling the 1:30,000 scale bridging photographs.

The 1:30,000 scale color photographs had a dual purpose; one, as the primary compilation source for the 1:10,000 scale manuscripts; secondly, to locate a series of premarked images to be used for future hydrographic surveys in the area.

1:50,000 scale and 1:30,000 scale black-and-white infrared photographs were ratioed to be used 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 proved to be adequate for completion of this portion of the project. Tie points from the 1:50,000 scale bridging photographs to the 1:30,000 scale bridging photographs proved to be suitable control for the latter. Control meets the National Standards of Map Accuracy.

SUPPLEMENTAL DATA

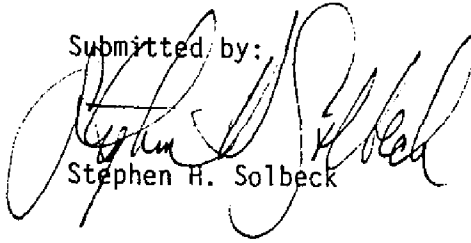
USGS quadrangles were used to provide vertical control for the strip and block adjustments.

Nautical Charts were used to locate aids and landmarks.

PHOTOGRAPHY

The coverage, overlap, and quality of the photographs proved to be adequate for completion of the project.

Submitted by:


Stephen H. Solbeck

Approved and Forwarded:



Don O. Norman
Chief, Aerotriangulation Unit

CM-8101
 Penobscot Bay, Maine
 Fit to Control
 1:50,000
 Block Adjustment

<u>STATION NAME</u>		<u>VALUES IN FEET</u>	
		<u>X</u>	<u>Y</u>
Dyer (1861) Sub Point	729101 Δ	0	-.02
West Stockton White Church Spire	825100	+2.84	-1.14
Sub Point	825101 Δ	0	0
Sparks House Chimney Sub Point	827101 Δ	-.01	-.01
Rockland Breakwater Lighthouse	570100	+2.16	+.67
Sub Point	570101 Δ	-.03	-.06
Mount Battle Memorial Observatory			
Sub Point	573101 Δ	0	0
Temperance	576100 Δ	0	0
Kittredge Rm 1	592101 Δ	0	0
Heron Neck Lighthouse Sub Point	724101 Δ	0	0
Castine Orthodox Church Spire	742100	+1.43	+1.69
Sub Point	742101 Δ	0	0
Blue Hill Lookout Tower	702100	-.47	-.26
Sub Point	702101 Δ	0	0
Stubbs Sub Point	587101 Δ	-.09	+.04
Bangor Radio Station WLBZ			
Tallest Mast of 2	591141	+1.56	+2.54
Bangor Unitarian Church Spire	590144	+3.87	-.67
Bangor Tank, Flagpole	590143	+3.45	+2.27
Bangor Dow AFB Standpipe	590149	+3.30	+3.06
Bangor Radio Station WABI			
East Mast	590147	+1.06	+1.65
Bangor Radio Station WABI			
West Mast	590146	+3.98	+.70

Orrington Church Spire	588141	+4.72	-.43
Winterport Church Clock Spire	586141	+3.35	+3.84
Steel Ledge Monument Light			
(Steel Ledge Beacon)	579151	-5.57	+9.21
Stone Beacon	734151	-2.15	+6.15
Duck Trap Church Spire	576141	+5.57	+6.40
Negro Island Lighthouse	573151	+5.52	-4.77
Camden White Brick Stack	573141	+3.71	+3.32
Rockport School House Clock Tower	572141	+8.2	-2.70
Rockport White Square Cupola	572142	+1.75	+2.06
The Graves Light	573152	-.50	-2.14
Indian Island Lighthouse	572144	-.72	-.57
North Haven Water Tower	727149	-1.51	+2.59
Odens Ledge Beacon	827151	-5.70	-1.70
Fort Pt. Ledge Beacon	731501	-.64	+4.42
Coombs Pt. Water Tank	823141	-1.52	+1.94
Dice Head Lighthouse	823443	-3.08	-4.14
N.E. Pt. Light	573153	-1.79	-10.63
Bucksport Silver Standpipe	828142	-3.05	2.01
Bucksport E. Maine Conference			
Seminary Cupola	828139	-1.65	+7.79
Hamden Congressional Church Spire	589141	+10.09	+2.89
Goose Rocks Lighthouse	727145	-8.28	-5.05

△ STATIONS HELD IN THE BLOCK ADJUSTMENT

Ratio Values
CM-8101
Penobscot Bay and Vicinity, Maine

1:50,000 Color Bridging	Ratio Value
82C(C) 3562 and 3563	2.530
82C(C) 3572 thru 3581	2.533
82C(C) 3731 thru 3735 (odd)	2.546
82C(C) 3736 thru 3748 (even)	2.546
82C(C) 3703 thru 3705	2.532
82C(C) 3817 thru 3826	2.540

1:50,000 Black-and-White Infrared

82C(R) 3857 thru 3859	2.547
82C(R) 3865 thru 3876	2.543
82C(R) 3897 thru 3906	2.550
82C(R) 3914 thru 3923	2.549
82C(R) 3935 thru 3936	2.512
82C(R) 4237 thru 4239	2.598
82C(R) 4535 thru 4545	2.521
82C(R) 4552 thru 4562	2.524
82C(R) 4573 thru 4583	2.538
82C(R) 4585 thru 4586	2.531

Ratio Values

CM-8101

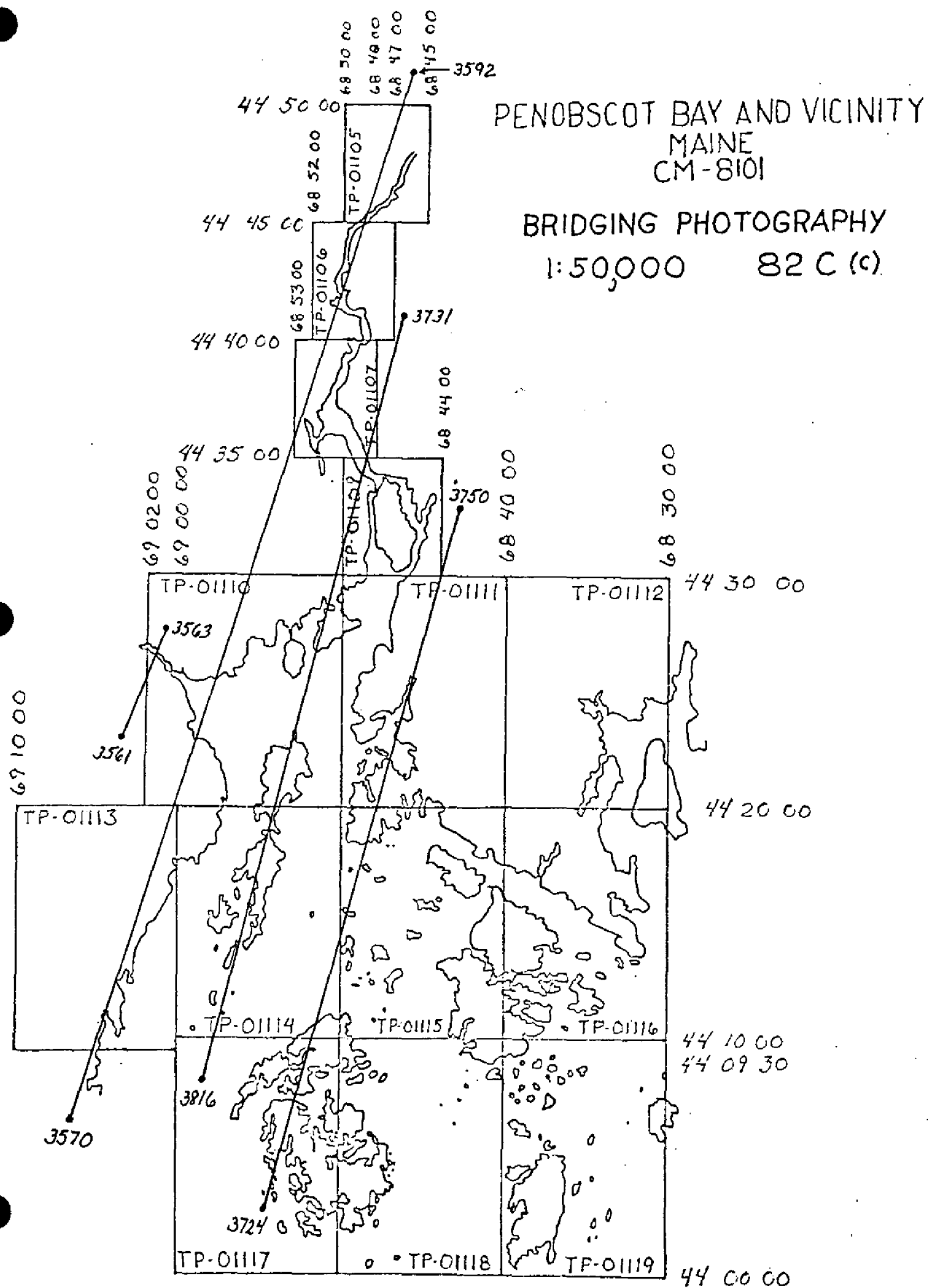
Penobscot Bay and Vicinity, Maine

1:30,000 Color Bridging Ratio Value

82Z(C) 5737 thru 5742	3.008
82Z(C) 5747 thru 5752	3.009
82Z(C) 5755 thru 5761	3.000
82Z(C) 5790 thru 5796	3.007
82Z(C) 5829 thru 5833	2.900
82B(C) 7972 thru 7976	2.935

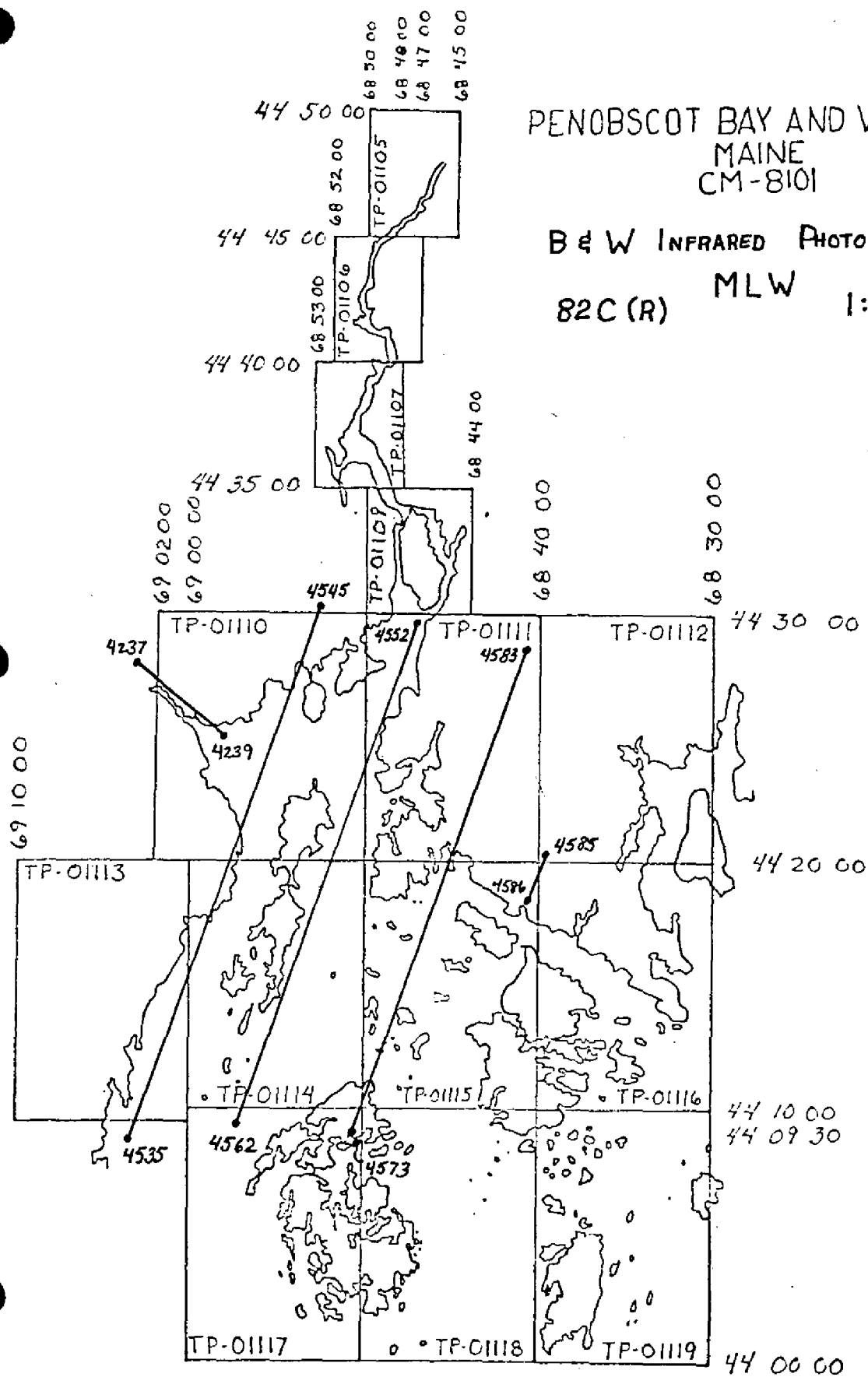
1:30,000 Black-and-White Infrared

82C(R) 4070 thru 4076	3.065
82C(R) 4079 thru 4083	3.033
82C(R) 4088 thru 4092	3.053
82C(R) 4096 thru 4100	3.050
82C(R) 4121 thru 4128	3.064
82C(R) 4132 thru 4137	3.009
82C(R) 4142 thru 4148	3.050
82C(R) 4151 thru 4157	3.022
82C(R) 4160 thru 4164	3.039
82C(R) 4496 thru 4504	3.102



PENOBSCOT BAY AND VICINITY MAINE CM-8101

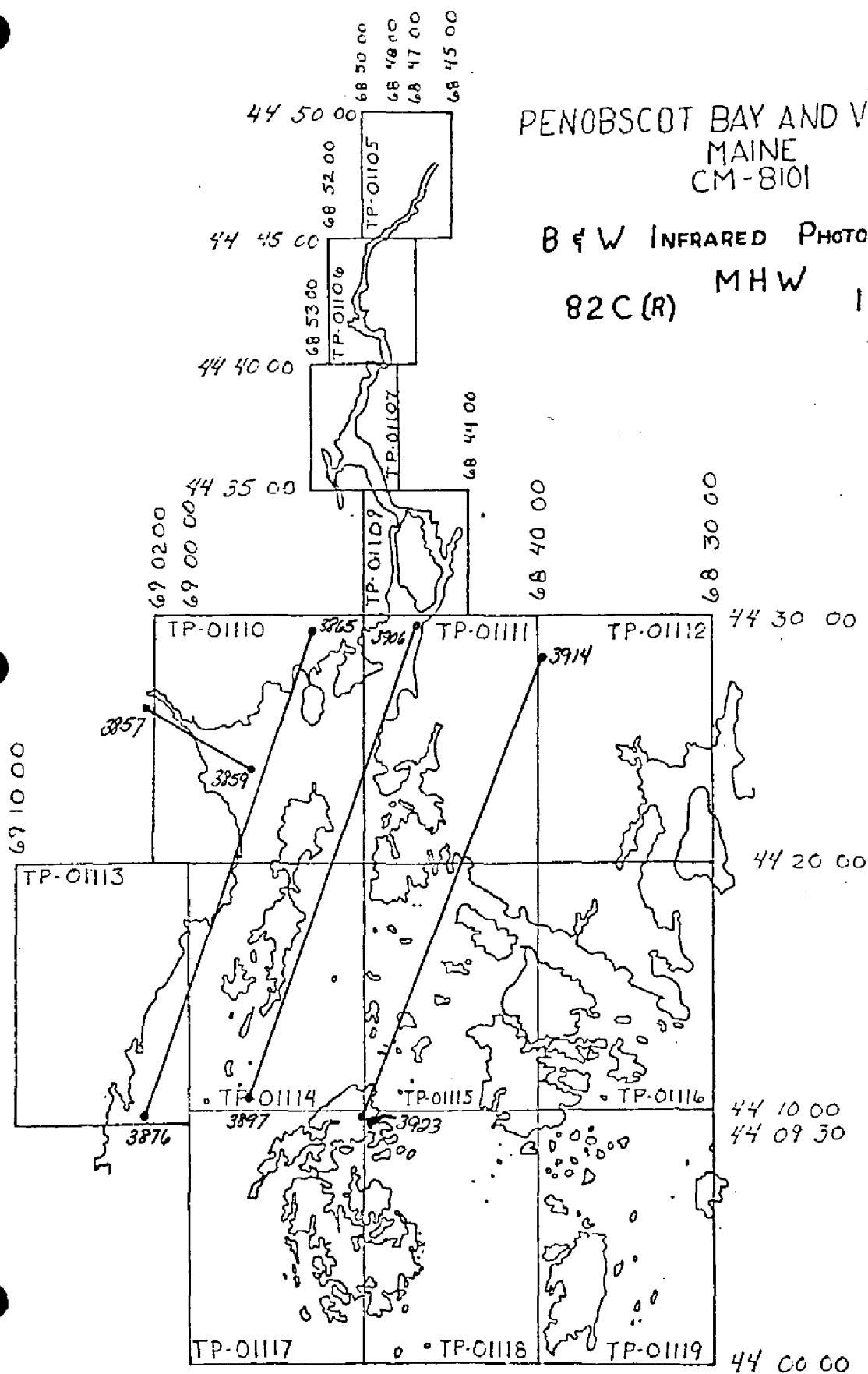
B & W INFRARED PHOTOGRAPHY
82C(R) MLW 1:50,000

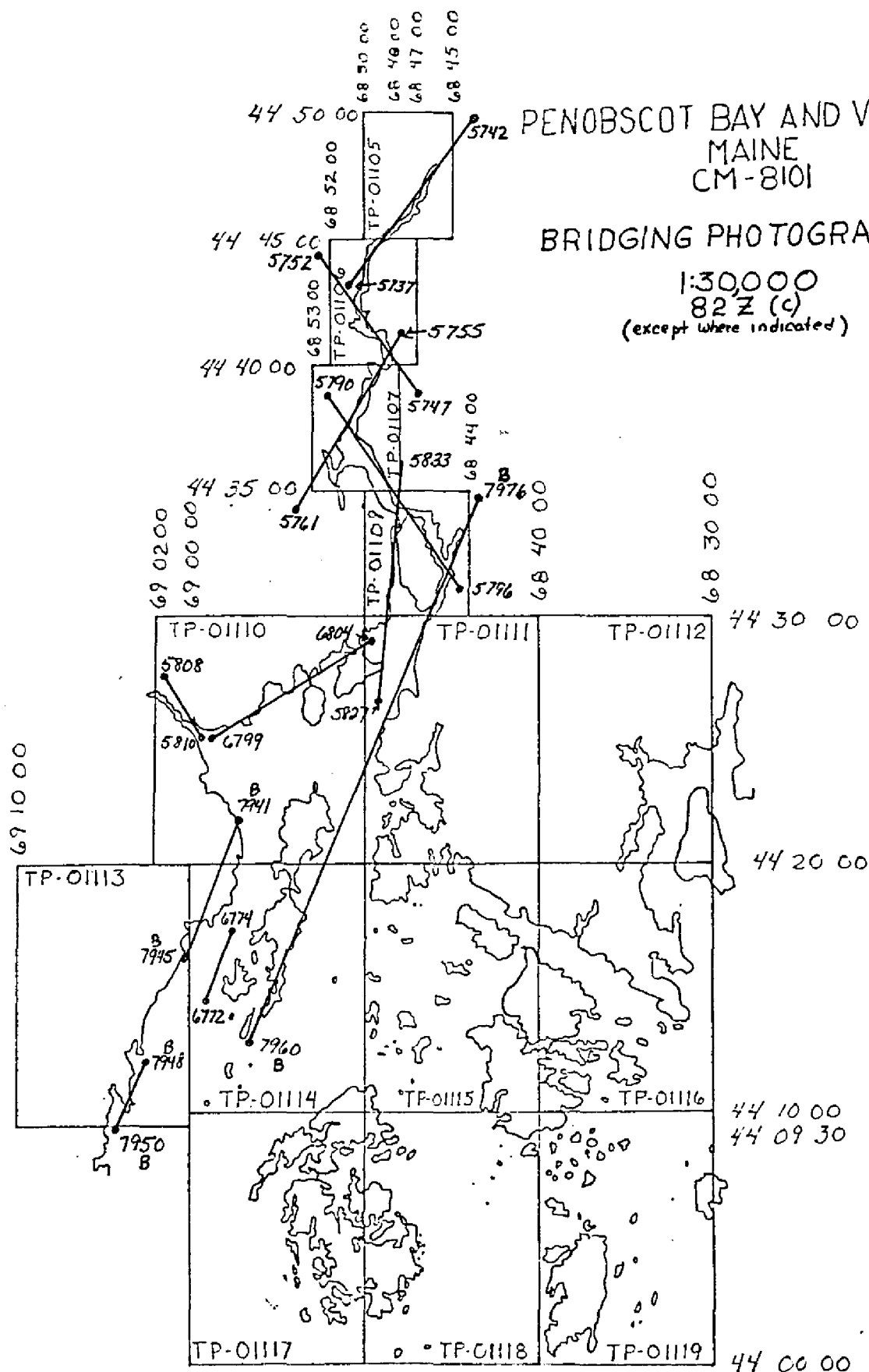


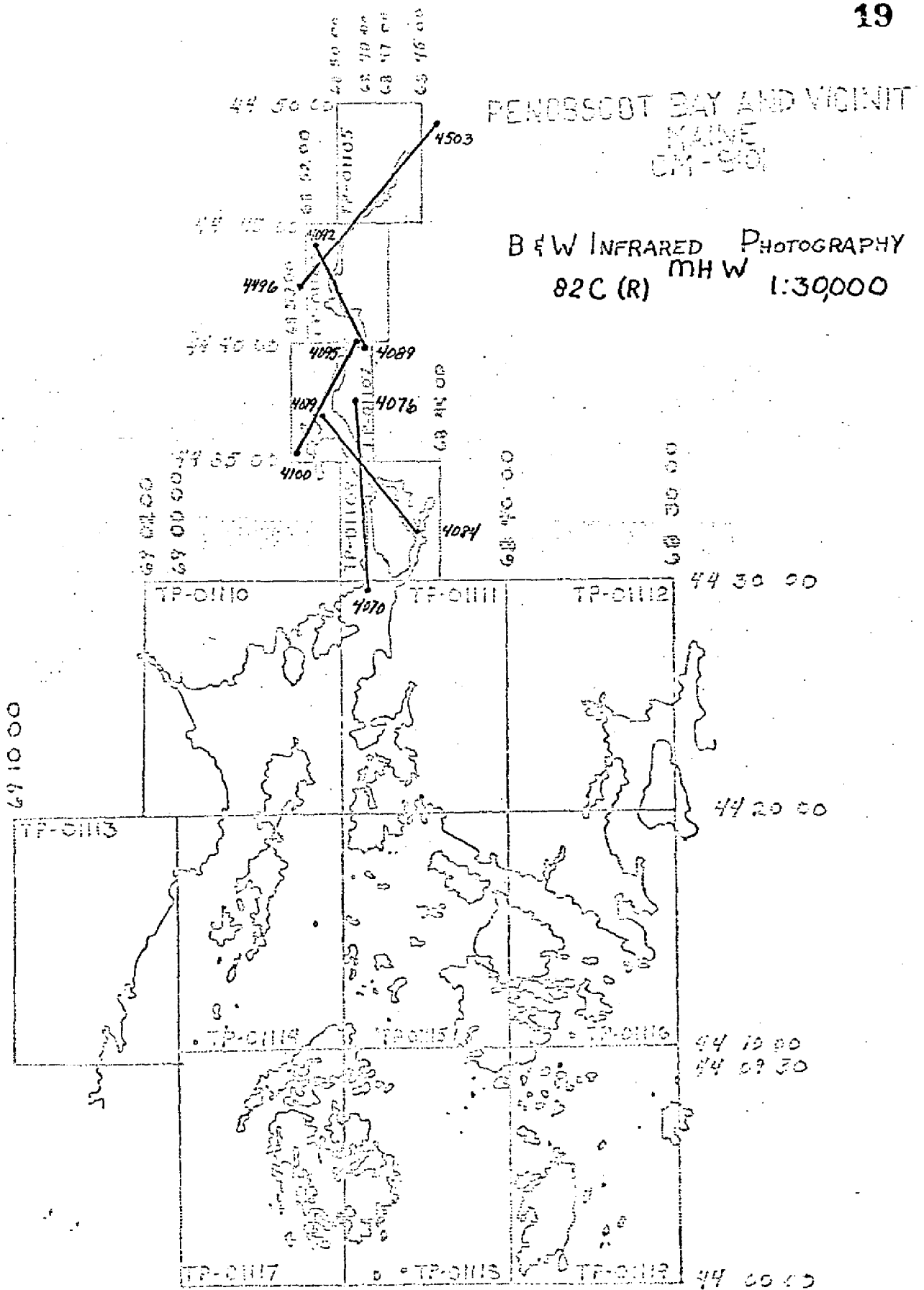
PENOBSCOT BAY AND VICINITY MAINE CM-8101

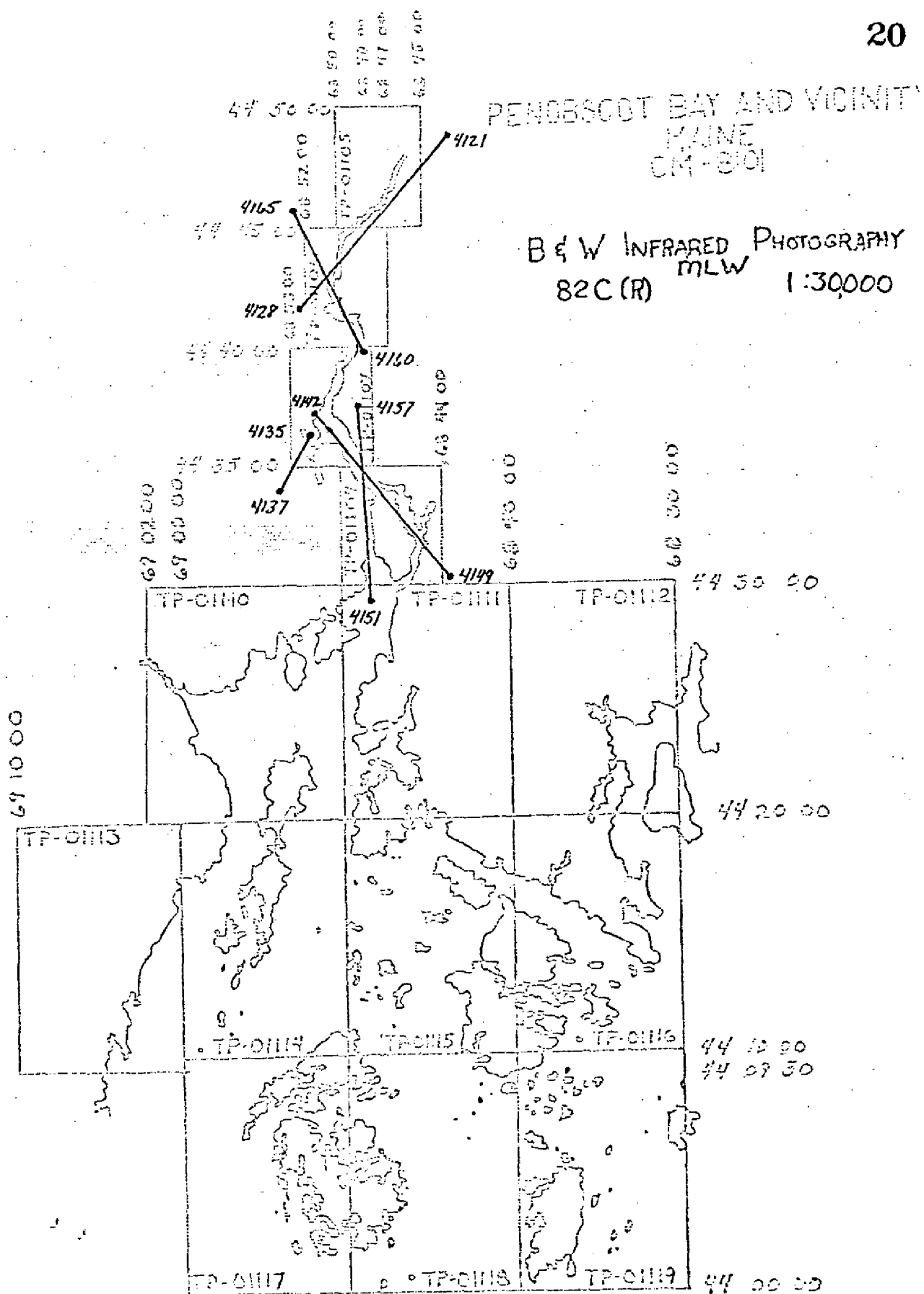
B & W INFRARED PHOTOGRAPHY

82C(R) MHW 1:50000









DESCRIPTIVE REPORT CONTROL RECORD

MAP NO. TP-01110	JOB NO. CM-8101	STATION NAME	SOURCE OF INFORMATION (Index)	AEROTRI- ANGULATION POINT NUMBER	GEODETTIC DATUM NA 1927		COORDINATES IN FEET		GEOGRAPHIC POSITION		REMARKS
					STATE	ZONE	Maine East	φ LATITUDE λ LONGITUDE	φ LATITUDE λ LONGITUDE		
WEST STOCKTON WHITE CHURCH SPIRE, 1911	440683 STA 1158	825100			X=	Y=	X=	Y=	φ 44°28'27.055"	λ 68°53'15.911"	
YELLOW BARN CUPOLA, 1911	440683 STA 1169	55			X=	Y=	X=	Y=	φ 44°25'45.852"	λ 68°58'54.340"	
STEEL LEDGE MONUMENT LIGHT, 1911	440683 STA 1142	58			X=	Y=	X=	Y=	φ 44°25'09.192"	λ 68°58'22.461"	
EAST NORTHPORT, BLACK WATER TANK, 1934	440683 STA 1056	59			X=	Y=	X=	Y=	φ 44°22'23.087"	λ 68°58'06.806"	
SEARSPORT CHURCH SPIRE, 1862	440683 STA 1132	53			X=	Y=	X=	Y=	φ 44°27'34.92"	λ 68°55'32.11"	
COOMBS POINT, WATER TANK, 1934	440683 STA 1038	66			X=	Y=	X=	Y=	φ 44°21'38.75"	λ 68°52'01.17"	
STOCKTON SPRINGS, UNIVERSA- LIST CHURCH SPIRE, 1934	440683 STA 1145	51			X=	Y=	X=	Y=	φ 44°29'26.903"	λ 68°51'29.387"	
					X=	Y=	X=	Y=	φ	λ	
					X=	Y=	X=	Y=	φ	λ	
					X=	Y=	X=	Y=	φ	λ	
COMPUTED BY					X=	Y=	X=	Y=	φ	λ	DATE
LISTED BY Frank Margiotta				DATE 5/6/83	LISTING CHECKED BY I. Perkinson						DATE May 6, 1983
HAND PLOTTING BY				DATE	HAND PLOTTING CHECKED BY						DATE

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

COMPILATION REPORT

TP-01110

31. DELINEATION

Delineation was accomplished using stereo instrument and graphic compilation methods. Instrument compilation was used to delineate shoreline, alongshore 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 the interpretation of the shoreline. Tide coordinated MLW infrared ratio photographs were used to graphically compile the approximate mean low water line. Control for graphic delineation was provided by the instrument compilation of coastal detail and common image points.

All photographs used to compile this 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. The infrared photographs were primarily controlled by the instrument delineation of shoreline detail.

32. CONTROL

Horizontal control was adequate. Refer to the Photogrammetric Plot Report dated July 1983.

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 water line was compiled by office interpretation of the compilation photographs and was complemented by the tide coordinated MHW infrared photographs. To make an accurate check with the 1:20,000 scale manuscript, the MHW infrared photographs were ratioed:

82C(I)3857-3859	2.547 times
82C(I)3865-3870	2.543 times
82C(I)3901-3903	2.55 times

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Both ledge and rocky areas, as characterized by dense rocks and boulders, were portrayed using the standard "ledge" symbol. No attempt was made to distinguish between these features as the foreshore is primarily rocky. Foreshore areas with scattered rocks were not classified but were generally represented by individual rocks.

36. OFFSHORE DETAILS

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

To graphically compile the approximate mean low water line, the MLW infrared photographs were ratioed:

82C(I)4238-4239	2.598 times
82C(I)4540-4545	2.521 times
82C(I)4555-4557	2.524 times

37. LANDMARKS AND AIDS

There are 9 charted landmarks and 3 charted navigational aids within the mapping limits of this manuscript. Of these, 7 landmarks and all 3 aids were either located or verified photogrammetrically. Appropriate information was prepared on the NOAA 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.

40. HORIZONTAL AND VERTICAL ACCURACY

See Item #32.

46. COMPARISON WITH EXISTING MAPS

A comparison was made with the following U.S.G.S. Quadrangles:

Castine, Maine, dated 1973, scale 1:24,000
Islesboro, Maine, dated 1973, scale 1:24,000
Belfast, Maine, dated 1960, photorevised 1973, scale 1:24,000
Searsport, Maine, dated 1973, scale 1:24,000
Cape Rosier, Maine, dated 1973, scale 1:24,000

TP-01110

47. COMPARISON WITH NAUTICAL CHARTS

A comparison was made with the following NOS charts:

13309, 22nd edition, dated February 20, 1982, scale 1:40,000
13310, 19th edition, dated February 20, 1982, scale 1:40,000
13302, 14th edition, dated February 26, 1983, scale 1:80,000

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY

None

ITEMS TO BE CARRIED FORWARD

None

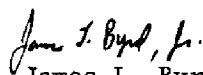
Submitted by,



Frank P. Margiotta
Cartographic Technician

Date: June 1983

Approved,



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

PHOTOGRAMMETRIC OFFICE PRE-HYDRO AND FIELD EDIT REVIEW

25

CM-8101
TP-01110

PROJECTION AND GRIDS WTM	TITLE WTM	HORIZONTAL CONTROL WTM	PHOTOGRAMMETRIC PLOT REPORT Not available at time of compilation
DETAIL POINTS AND PASS POINTS WTM	PROCESSED RATIOS WTM	AIDS TO NAVIGATION WTM	LANDMARKS WTM
MEAN HIGH WATER LINE WTM	LOW-WATER LINE WTM	ROCKS, SHOALS, ETC. WTM	ALONG SHORE AND OTHER PHYSICAL FEATURES WTM
WATER FEATURES WTM	ALONG SHORE AND OTHER CULTURAL FEATURES WTM	BRIDGES WTM	ROADS WTM
BUILDINGS WTM	RAILROADS WTM	CONTOURS AND SPOT ELEVATIONS NA	GEOGRAPHIC NAMES WTM
JUNCTIONS * WTM	LEGIBILITY OF THE MANUSCRIPT WTM	COMPILATION REPORT WTM	FIELD EDIT OZALID NA
COMPARISON WITH NAUTICAL CHARTS WTM	COMPARISON WITH PRIOR SURVEYS NA	COMPARISON WITH EXISTING MAPS WTM	FIELD PRINTS AND OTHER COPIES WTM
REVIEWER W. T. McLemore, Jr.	DATE	SUPERVISOR J. L. Byrd, Jr.	DATE

REMARKS

PHOTOGRAMMETRIC OFFICE POST-HYDRO AND FIELD EDIT REVIEW

MANUSCRIPT NUMBERS	FORMAT STICK-UP	MANUSCRIPT SIZE	HORIZONTAL CONTROL
PHOTO HYDRO STATIONS	PLOTTING OF SEXTANT FIXES	AIDS TO NAVIGATION	LANDMARKS
MEAN HIGH WATER LINE	LOW-WATER LINE	ROCKS, SHOALS, ETC.	ALONG SHORE AND OTHER PHYSICAL FEATURES
WATER FEATURES	ALONG SHORE AND OTHER CULTURAL FEATURES	PIPELINES, CABLES, ETC.	BRIDGES
ROADS	BUILDINGS	RAILROADS	CONTOURS AND SPOT ELEVATIONS
GEOGRAPHIC NAMES	JUNCTIONS	FIELD EDIT PHOTOGRAPHS	FIELD EDIT OZALID
GEOGRAPHIC FIX POSITIONS	FIELD FORMS	FIELD EDIT REPORT	APPROVED TIDES
CHART MAINTENANCE PRINT AND OTHER COPIES	PREPARATION FOR FINAL REVIEW	COMPILER	DATE
REVIEWER	DATE	SUPERVISOR	DATE

REMARKS

REVIEW REPORT TP-01110

SHORELINE

61. GENERAL STATEMENT:

Aerotriangulation and compilation operations for this project have been segmented in order to meet production schedules. This map represents one of four 1:20,000 scale priority maps designated as project CM-8101, Part II, Penobscot Bay and vicinity, Maine.

Refer to the Summary included in this Descriptive Report.

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS:

Not applicable

63. COMPARISON WITH MAPS OF OTHER AGENCIES:

A comparison was made with the following 1:24,000 scale U.S.G.S. Quadrangles:

Searsport, Maine, dated 1973

Islesboro, Maine, dated 1973

Cape Rosier, Maine, dated 1973

Castine, Maine, dated 1973

Belfast, Maine, dated 1960, photorevised 1973.

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 anticipated hydrographic activity.

65. COMPARISON WITH NAUTICAL CHARTS:

A comparison was made with the following NOS charts:

13309, 1:40,000 scale, 22nd edition, February 20, 1982

13310, 1:40,000 scale, 19th edition, February 20, 1982

13302, 1:80,000 scale, 13th edition, March 28, 1981

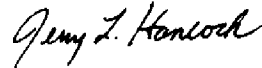
66. ADEQUACY OF RESULTS AND FUTURE SURVEYS:

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

REVIEW REPORT TP-01110

SHORELINE

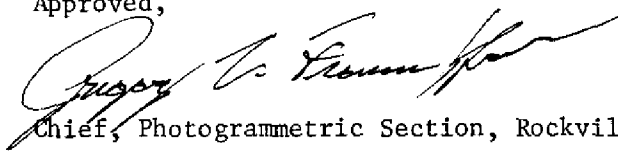
Submitted by,

Jerry L. Hancock
Final Reviewer

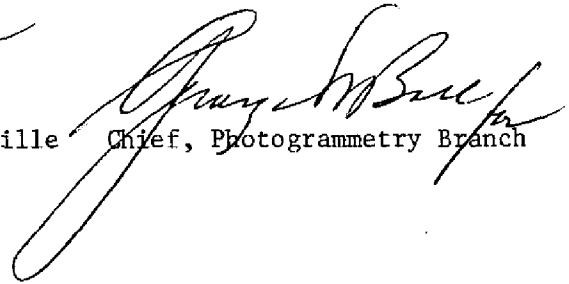
Approved for forwarding,

Billy H. Barnes
Chief, Photogrammetric Section, AMC

Approved,



Chief, Photogrammetric Section, Rockville



Chief, Photogrammetry Branch

GEOGRAPHIC NAMES
FINAL NAME SHEET
CM-8101 (PENOBSCOT BAY AND VICINITY, MAINE)

TP-01110

Bangor & Aroostock (RR)
Bayside
Belfast
Belfast & Moosehead Lake (RR)
Belfast Bay
Belfast Reservoir No. 1
Browns Head
Bryants Corner
Cape Jellison
Cape Junction
Coombs Cove
Coombs Point
Decker Point
East Northport
Goose River
Grants Cove
Hutchins Island
Islesboro Island
Kellys Cove
Kidder Point
Little River
Long Cove
Mack Point
Marshall Point
Meadow Pond
Mill Brook
Mill Cove
Mill Pond
Moose Point
Morrow Brook
North Islesboro

Northport
Parker Cove
Passagassawakeag River
Patterson Point
Penobscot Bay
Point Comfort
Pripet
Ram Island
Ryder Cove
Sabbathday Harbor
Saturday Cove
Sears Island
Sears Island Ledge
Searsport
Searsport Harbor
Searsport Station
Sprague Cove
Spragues Beach
Squaw Head
Squaw Point
Steels Ledge
Stockton Harbor
Stockton Springs (locality)
Temple Heights
The Bare Ledges
The Bluff
The Bluffs
Turtle Head
Turtle Head Cove
Wescot Stream

Approved by:
Charles E. Harrington
Charles E. Harrington
Chief Geographer N/CG2x5

NOAA FORM 76-40 (8-74) Replaces C&GS Form 567.						U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION					
NON-ELECTRONIC AIDS OR LANDMARKS FOR CHARTS											
REPORTING UNIT (If land Party, Ship or Office)		STATE		LOCALITY		DATE		ORIGINATING ACTIVITY			
<input checked="" type="checkbox"/> TO BE CHARTED	<input type="checkbox"/> TO BE REVISED	<input type="checkbox"/> TO BE DELETED	Coastal Mapping Unit AMC, Norfolk, VA	Maine	Penobscot Bay	May 1983	<input type="checkbox"/> HYDROGRAPHIC PARTY <input type="checkbox"/> GEODETIC PARTY <input type="checkbox"/> PHOTO FIELD PARTY <input checked="" type="checkbox"/> COMPILATION ACTIVITY <input type="checkbox"/> FINAL REVIEWER <input type="checkbox"/> QUALITY CONTROL & REVIEW GRP. <input type="checkbox"/> COAST PILOT BRANCH				
The following objects HAVE <input type="checkbox"/> HAVE NOT <input checked="" type="checkbox"/> been inspected from seaward to determine their value as landmarks.						(See reverse for responsible personnel)					
OPR PROJECT NO.		JOB NUMBER	SURVEY NUMBER	DATUM	POSITION		METHOD AND DATE OF LOCATION (See instructions on reverse side)		CHARTS AFFECTED		
CHARTING NAME		DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses)		LATITUDE	LONGITUDE	OFFICE	FIELD				
				° / '	" D.M. Meters	" ° / '	" D.P. Meters				
HO CHY		CM-8101	TP-01110	NA 1927				Not Vis		13302 13309 13310	
TANK	Appears destroyed			44 20.3	68 59.9						
R TR	(East Northport, Black Water Tank, 1934)			44 22	23.087	68 58	06.806	82C(C) 3577 6/27/82		13302 13309 13310	
ELEV	WBME			44 25	09.7 298	69 00	38.2 846	82C(C) 3563 6/27/82		13302 13309 13310	
ELEVATOR				44 25	41.4 1278	69 00	16.6 367	82C(C) 3563 6/27/82		13302 13309 13310	
CH SP	(West Stockton White Church Spire, 1911)			44 27	08.9 274	68 54	19.4 429	82C(C) 3581 6/27/82		13302 13309 13310	
TOWER*				44 28	27.055	68 53	15.911	82C(C) 3581 6/27/82		13302 13309 13310	
SPIRE	(Stockton Springs, Universalist Church Spire, 1934)			44 25	49.640	68 53	0.539	82C(C) 3825 6/27/82		13302 13309 13310	
STACK	Appears destroyed			44 29	26.903	68 51	29.387	82C(C) 3826 6/27/82		13309 13310	
	*Positioned by aerotriangulation			44 25.9		69 00.7		Not Vis		13309 13310	

RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
OBJECTS INSPECTED FROM SEAWARD	
POSITIONS DETERMINED AND/OR VERIFIED	F. Margiotta
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES	
INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'	
(Consult Photogrammetric Instructions No. 64.)	
OFFICE 1. 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 (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
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	III. 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 II. POSITION VERIFIED VISUALLY ON PHOTOGRAPH Enter 'V-Vis.' and date. EXAMPLE: V-Vis. 8-12-75 **PHOTOGAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.
*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.	

[illegible]

RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
OBJECTS INSPECTED FROM SEAWARD	
POSITIONS DETERMINED AND/OR VERIFIED	
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES	F. Margiotta
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 (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
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	III. 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 II. 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.
*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.	

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.

[illegible]