

TP-01113

TP-01113

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-01113	Edition No. 1
Job No. CM-8101	
Map Classification CLASS III (FINAL)	
Type of Survey SHORELINE	
LOCALITY	
State MAINE	
General Locality PENOBSCOT BAY	
Locality CAMDEN AND ROCKPORT	
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		SURVEY TP. 01113	
DESCRIPTIVE REPORT - DATA RECORD				<input checked="" type="checkbox"/> ORIGINAL		MAP EDITION NO. (1)	
				<input type="checkbox"/> RESURVEY		MAP CLASS III (FINAL)	
				<input type="checkbox"/> REVISED		JOB XMK CM-8101	
PHOTOGRAMMETRIC OFFICE Coastal Mapping Unit, Atlantic Marine Center Norfolk, VA				LAST PRECEDING MAP EDITION			
OFFICER-IN-CHARGE A. Y. Bryson, CDR				TYPE OF SURVEY		JOB PH. _____	
				<input type="checkbox"/> ORIGINAL		MAP CLASS _____	
				<input type="checkbox"/> RESURVEY		SURVEY DATES:	
				<input type="checkbox"/> REVISED		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 L. Harrod				March 1983			
METHOD: Analytic LANDMARKS AND AIDS BY							
2. CONTROL AND BRIDGE POINTS PLOTTED BY L. Harrod				March 1983			
METHOD: Coradomat CHECKED BY							
3. STEREOSCOPIC INSTRUMENT PLANIMETRY BY P. Evans, Jr.				May 1983			
COMPILATION CHECKED BY W. McLemore				May 1983			
INSTRUMENT: Wild B-8 CONTOURS BY NA							
SCALE: 1:20,000 CHECKED BY NA							
4. MANUSCRIPT DELINEATION PLANIMETRY BY P. Evans, Jr.				May 1983			
CHECKED BY R. Kravitz				May 1983			
METHOD: Smooth Drafted CONTOURS BY NA							
CHECKED BY NA							
SCALE: 1:20,000 HYDRO SUPPORT DATA BY P. Evans, Jr.				May 1983			
CHECKED BY R. Kravitz				May 1983			
5. OFFICE INSPECTION Final Review R. Kravitz				May 1983			
6. APPLICATION OF FIELD EDIT DATA BY NA							
CHECKED BY NA							
7. COMPILATION SECTION REVIEW BY R. Kravitz				May 1983			
8. FINAL REVIEW BY J. Hancock				June 1983			
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH BY J. Hancock				June 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 TP-01113 COMPILATION SOURCES		U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SURVEY	
1. COMPILATION PHOTOGRAPHY					
CAMERA(S) Wild R.C. 10(C) (C = 88.46 mm)		TYPES OF PHOTOGRAPHY LEGEND (C) COLOR (P) PANCHROMATIC (I) INFRARED		TIME REFERENCE	
TIDE STAGE REFERENCE <input checked="" type="checkbox"/> PREDICTED TIDES * <input type="checkbox"/> REFERENCE STATION RECORDS <input checked="" type="checkbox"/> TIDE CONTROLLED PHOTOGRAPHY **				ZONE Eastern	<input checked="" type="checkbox"/> STANDARD
				MERIDIAN 75th	<input type="checkbox"/> DAYLIGHT
NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE	
82 C(C) 3571-3577*	6/27/82	08:53	1:50,000	0.0 MLW	
82 C(I) 4535-4539**	8/22/82	07:53	1:50,000	-0.8 Below MLW	
82 C(I) 3872-3876**	7/2/82	08:23	1:50,000	-1.0 Below MHW	
				Mean Tide Range = 9.7 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 Rockland.					
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		
TP-01110	TP-01114	None	None		
REMARKS					

NOAA FORM 76-36C
(3-72)U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEYTP-01113
HISTORY OF FIELD OPERATIONSI. ☒ 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 R. W. Dunford	5/22/82
	ESTABLISHED BY R. W. Dunford	5/22/82
	PRE-MARKED OR IDENTIFIED BY R. W. Dunford	5/22/82
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 <input type="checkbox"/> NO INVESTIGATION	BY 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) 3573	- Mount Battie Memorial Observatory Sub Sta.		

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 form 277 (Tide Staff Location Books)

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

RECORD OF SURVEY USE

TP-01113

I. MANUSCRIPT COPIES

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

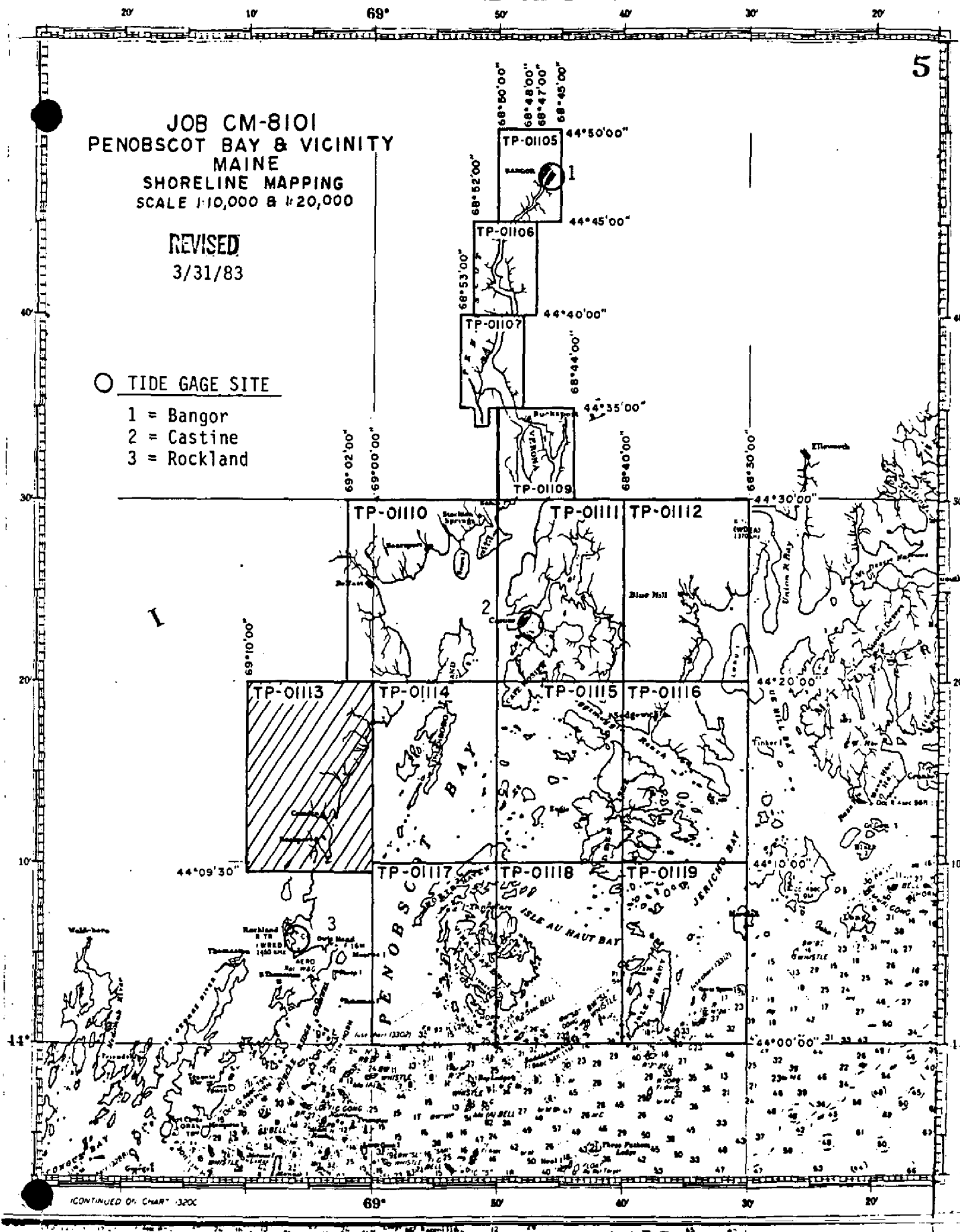
SECOND EDITION	SURVEY NUMBER TP - _____ (2)	JOB NUMBER PH - _____	TYPE OF SURVEY <input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY MAP CLASS <input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL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

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



SUMMARY TO ACCOMPANY
DESCRIPTIVE REPORT

TP-01113

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 portrays a portion of the west side shoreline along West Penobscot Bay from Rockland Harbor to Ducktrap Harbor.

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 May 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 June 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-01113

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-01113

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 aérotriangulation.

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

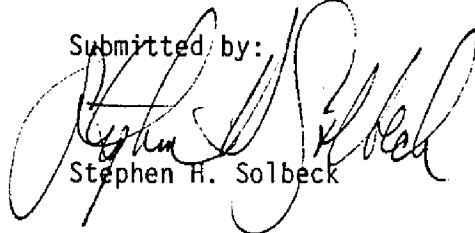
USGS quadrangles were used to provide vertical control for the strip and block adjustments.

Nautical Charts were used to locate aids and landmarks.

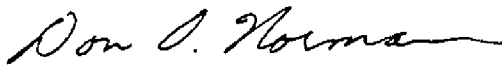
PHOTOGRAPHY

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

2

Orrington Church Spire	588141	+4.72	-.43
Winterport Church Clock Spire	586141	+.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	+.57	+6.40
Negro Island Lighthouse	573151	+5.52	-4.77
Camden White Brick Stack	573141	+3.71	+.32
Rockport School House Clock Tower	572141	+.82	-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	+.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	+.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

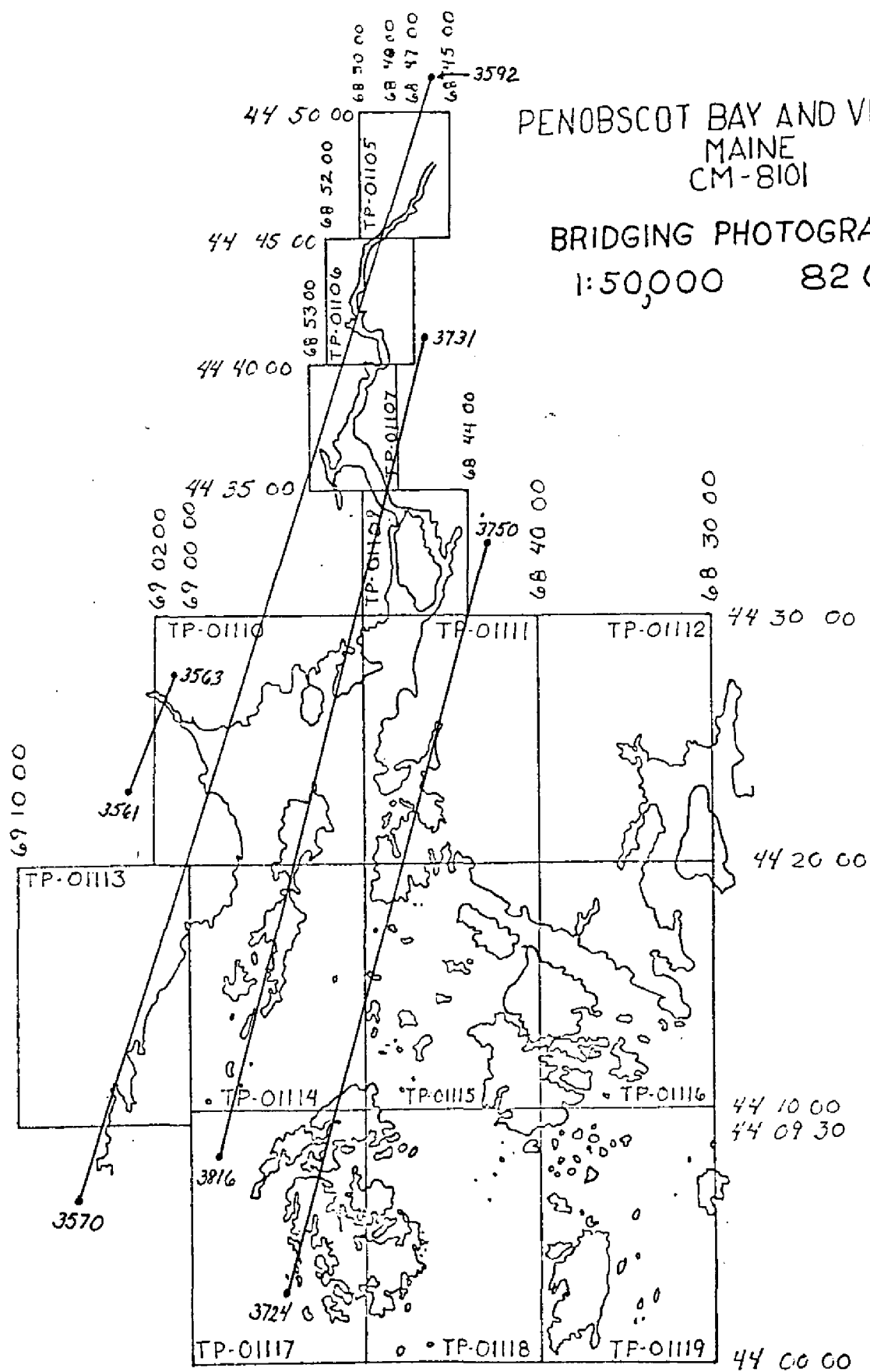
Ratio Values
CM-8101
Penobscot Bay and Vicinity, Maine

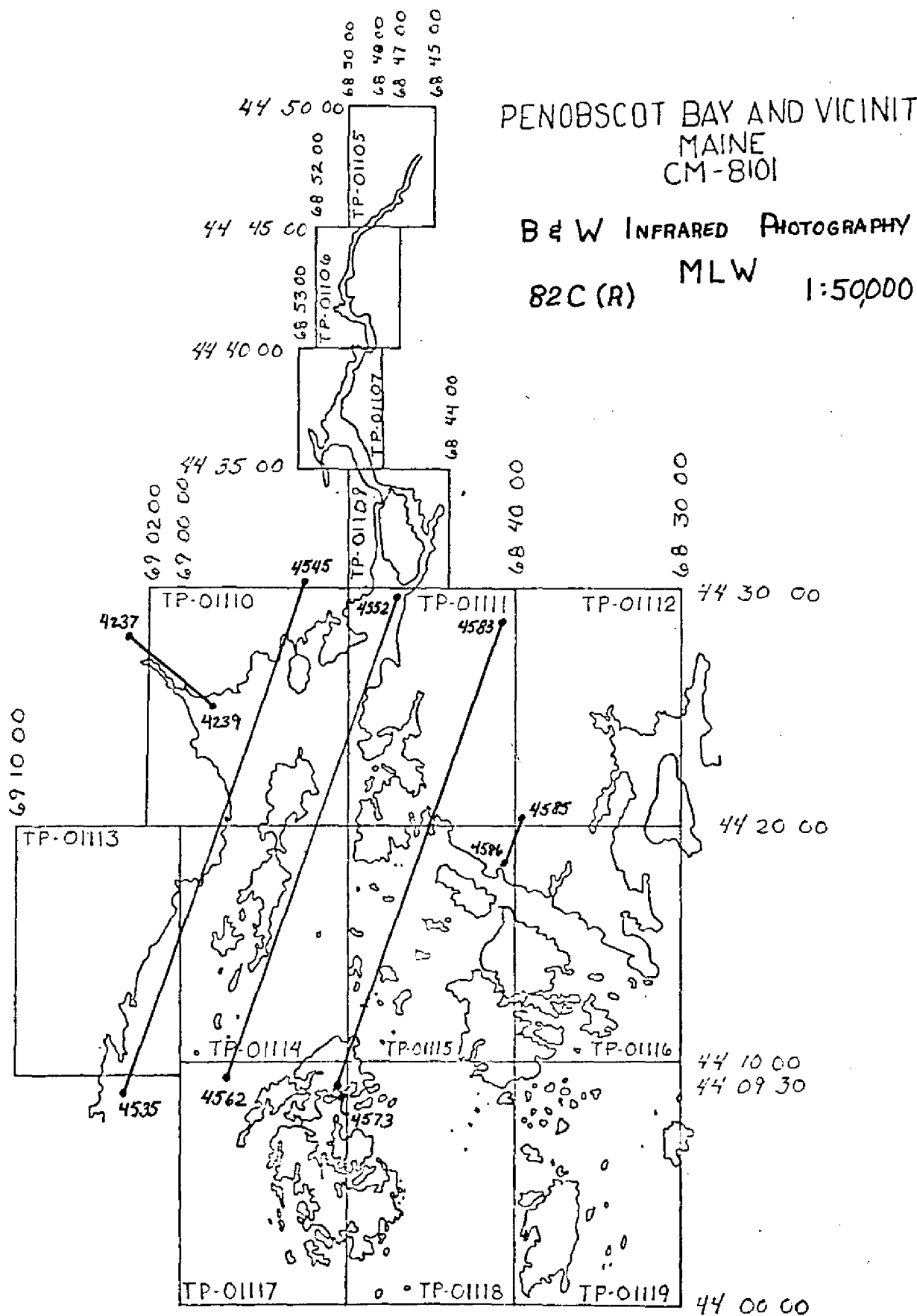
1:30,000 Color Bridging Ratio Value

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

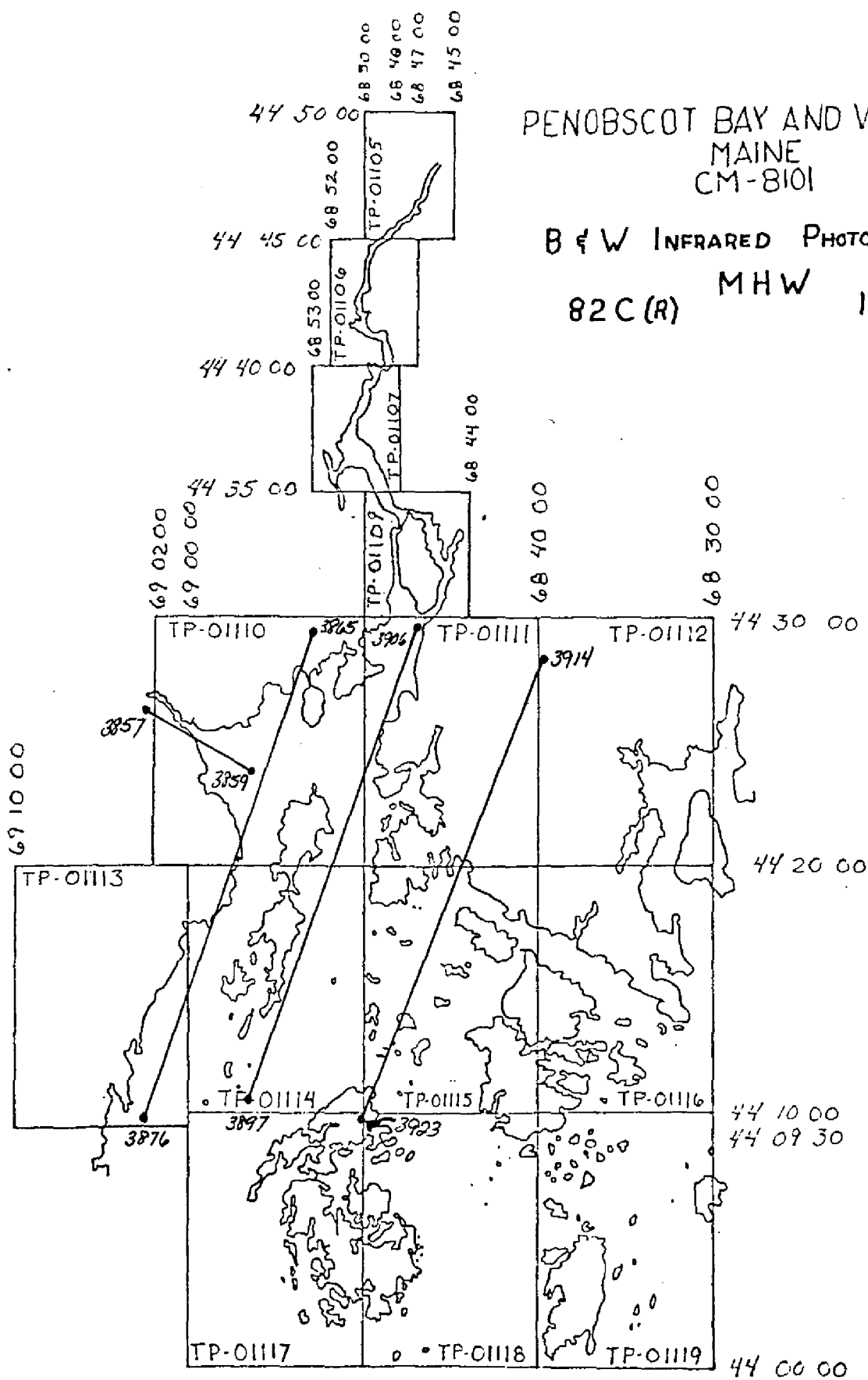


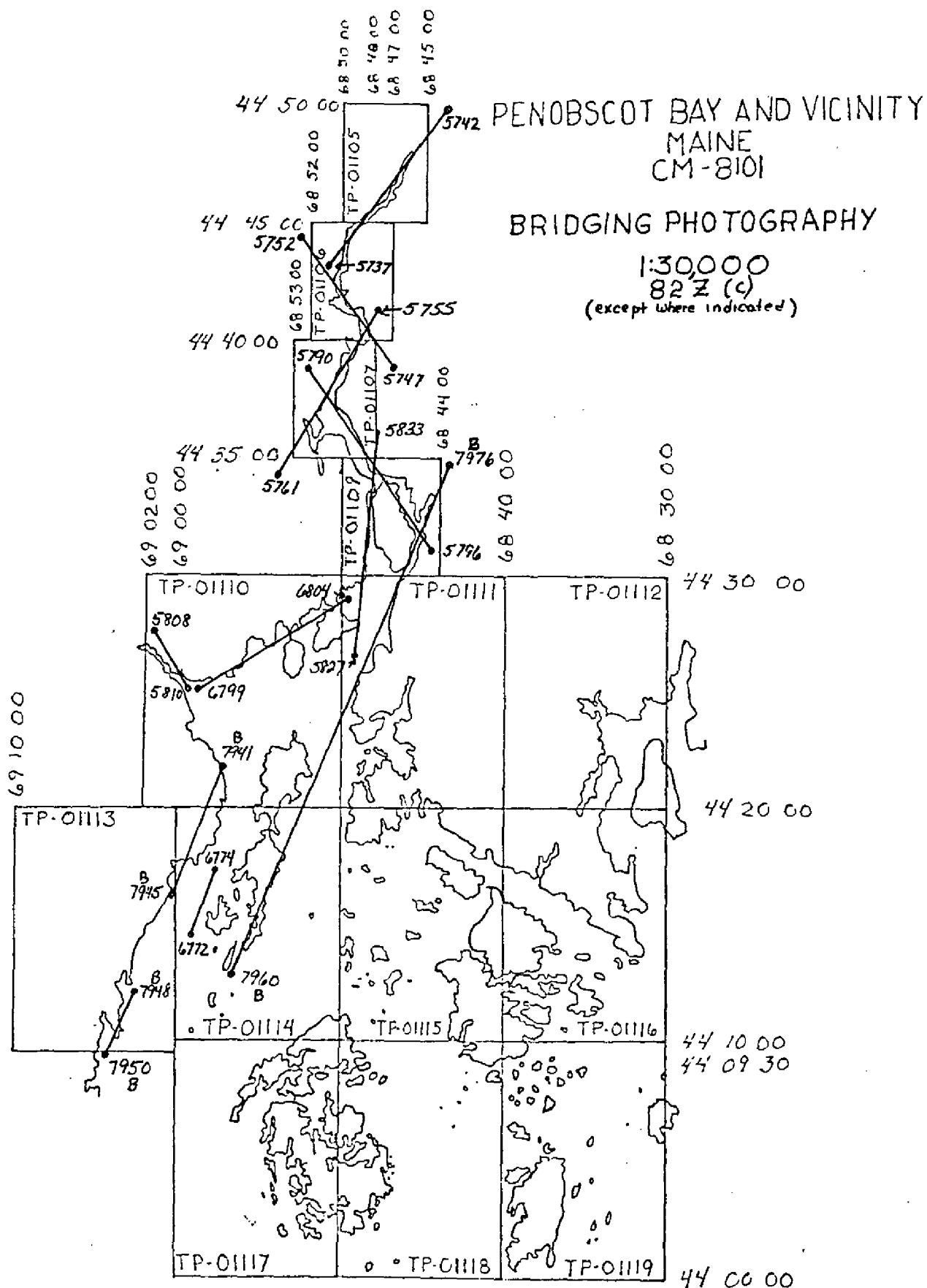


PENOBSCOT BAY AND VICINITY MAINE CM-8101

B & W INFRARED PHOTOGRAPHY

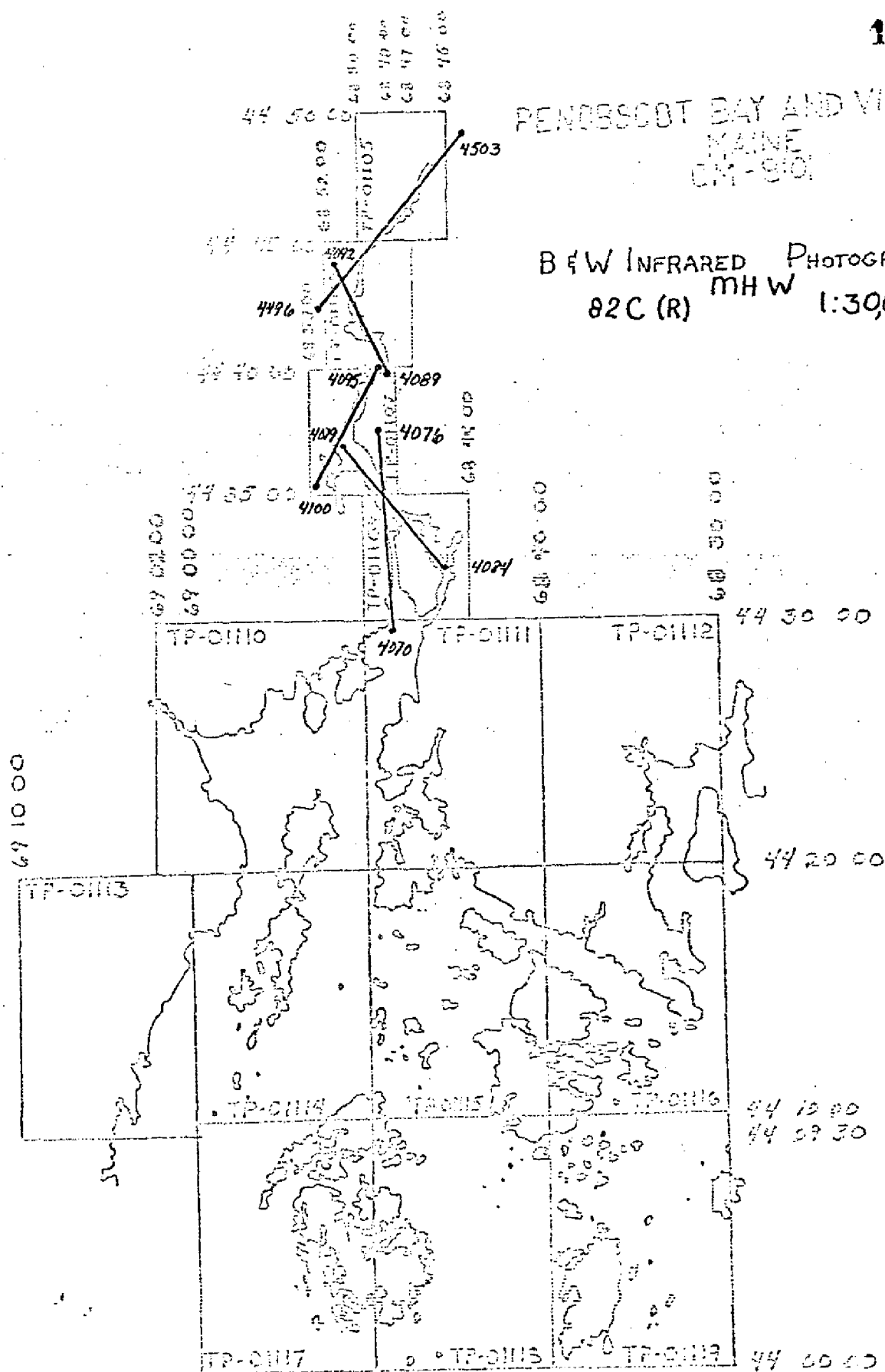
82C(R) MHW 1:50000

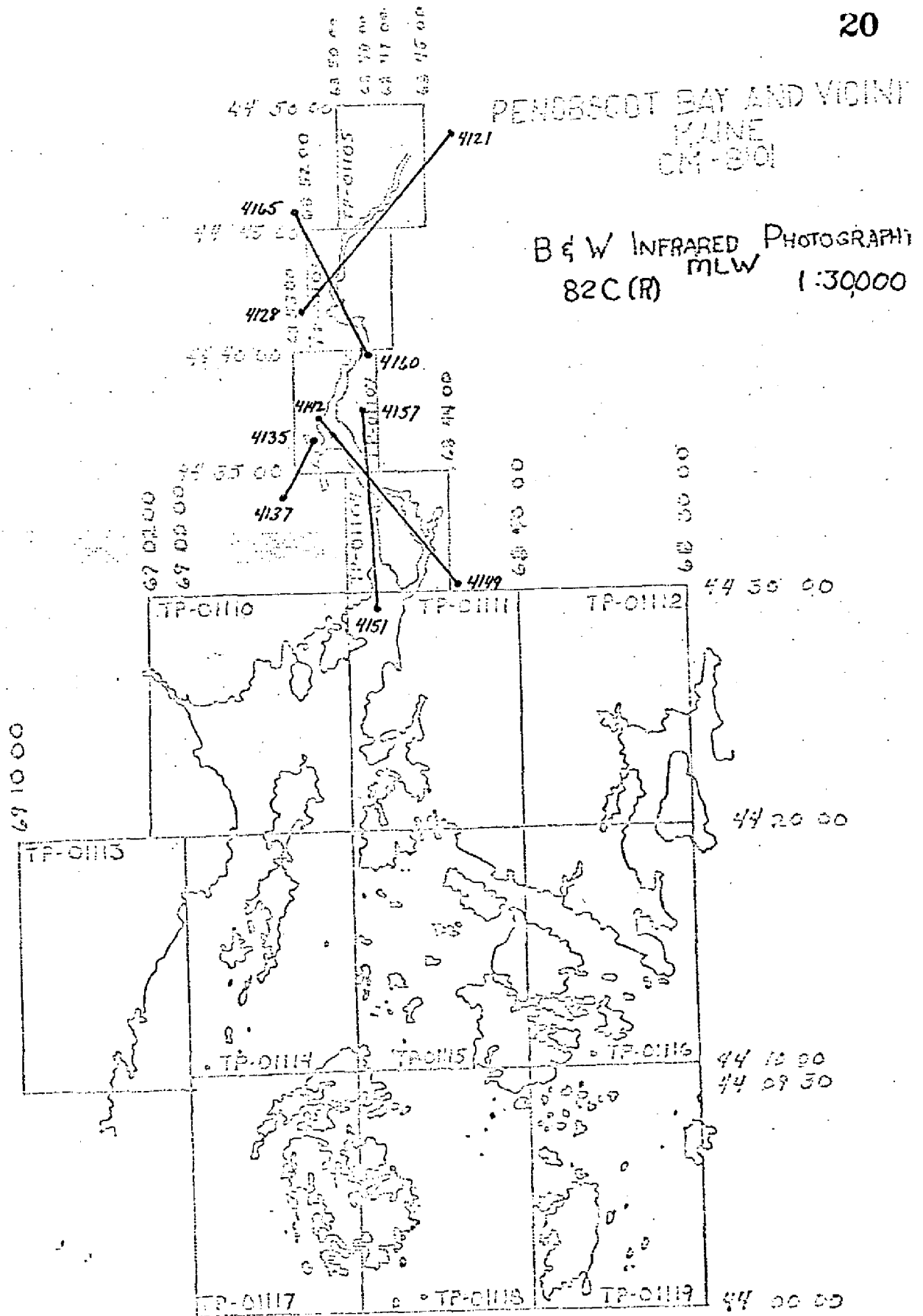




PENOBSCOT BAY AND VICINITY
MAINE
CM-8101

B & W INFRARED PHOTOGRAPH
82C (R) MHW 1:30000





DESCRIPTIVE REPORT CONTROL RECORD

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

MAP NO.	JOB NO.	GEODETIC DATUM	AEROTRI- ANGULATION POINT NUMBER	SOURCE OF INFORMATION (Index)	COORDINATES IN FEET STATE ZONE	GEOGRAPHIC POSITION ϕ LATITUDE λ LONGITUDE	ORIGINATING ACTIVITY Coastal Mapping Unit AMC, Norfolk, VA	REMARKS
TP-01113	CM-8101	NA 1927			MAINE EAST			
THE GRAVES LIGHT, 1953	440692 STA 1106		103		X=	ϕ 44°10'55.63"		
					Y=	λ 69°02'08.53"		
LOWELL ROCK LIGHT, 1953	440692 STA 1057		104B		X=	ϕ 44°09'45.94"		
					Y=	λ 69°03'38.75"		
INDIAN ISLAND LICHTHOUSE, 1902	440692 STA 1047		104A		X=	ϕ 44°09'55.436"		
					Y=	λ 69°03'41.429"		
					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					COMPUTATION CHECKED BY			DATE
LISTED BY P. L. Evans, Jr.					LISTING CHECKED BY R. R. Kravitz			DATE 5/24/83
HAND PLOTTING BY					HAND PLOTTING CHECKED BY			DATE

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

COMPILATION REPORT

TP-01113

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 interpretation of the shoreline delineation. 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 from 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, the ratio infrared photographs were primarily controlled by the instrument delineation of shoreline detail.

32. CONTROL

The 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 from office interpretation of the compilation photographs and was complemented by the tide coordinated MHW infrared photographs. These photographs were ratioed 2.543 times to make an accurate check with the 1:20,000 scale manuscript.

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.

The MLW infrared photographs were ratioed 2.521 times in order to graphically compile the approximate mean low water line as described in item #31.

37. LANDMARKS AND AIDS

There are 8 charted landmarks and 7 charted navigational aids within the mapping limits of this manuscript. Among these, 7 landmarks and 5 aids 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 U.S. Geological Quadrangles:

Camden, ME, 1955, photorevised 1973, scale 1:24,000

Lincolnton, ME, 1960, photorevised 1973, scale 1:24,000

47. COMPARISON WITH NAUTICAL CHARTS

13307, 1:20,000 scale, 6th edition, dated September 3, 1977

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

13305, 1:40,000 scale, 24th edition, dated February 13, 1982

13302, 1:80,000 scale, 14th edition, dated February 26, 1983

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY

None

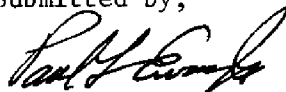
ITEMS TO BE CARRIED FORWARD

None

COMPILATION REPORT

TP-01113

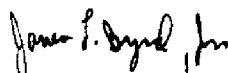
Submitted by,



Paul L. Evans, Jr.
Cartographic Technician

Date: May 23, 1983

Approved,



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

REVIEW REPORT TP-01113

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 U.S.G.S. quadrangles:

Camden, Maine, dated 1955, photorevised 1973
Lincolntonville, 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:

13307, 1:20,000 scale, 6th edition, September 3, 1977
13305, 1:40,000 scale, 24th edition, February 13, 1982
13309, 1:40,000 scale, 22nd edition, February 20, 1982
13302, 1:80,000 scale, 14th edition, February 26, 1983

Charts 13305 and 13309 are duplicated at the same scale and are published as Small Craft charts 13306 and 13310.

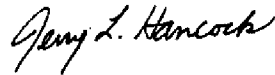
66. ADEQUACY OF RESULTS AND FUTURE SURVEYS:

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

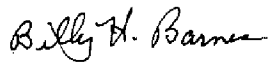
REVIEW REPORT TP-01113

SHORELINE

Submitted by:

Jerry L. Hancock
Final Reviewer

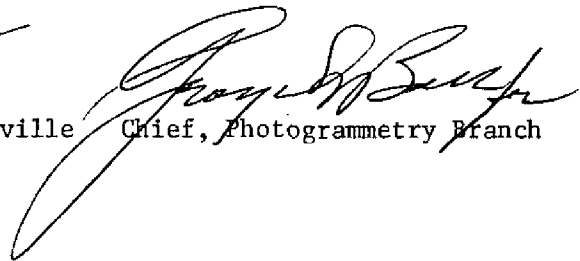
Approved for forwarding:

Billy H. Barnes
Chief, Photogrammetric Section, AMC

Approved:



Chief, Photogrammetric Section, Rockville



Chief, Photogrammetry Branch

GEOGRAPHIC NAMES

FINAL NAME SHEET

CM-8101 (Penobscot Bay & Vicinity, Maine)

TP-01113

Beauchamp Point

Camden

Camden Harbor

Deadman Point

Dillingham Point

Ducktrap

Ducktrap Harbor

Ducktrap River

Eaton Point

Frohock Brook

Frohock Point

Goose River

Goose Rock

Hog Cove

Hog Cove Ledge

Indian Island

Inner Ledges

Lilly Pond

Lincolnville

Lowell Rock

Megunticook River

Mouse Island

Northeast Ledge

Northeast Passage

Northeast Point

Ogier Point

Outer Ledges

Rockport

Rockport Harbor

Seal Ledge

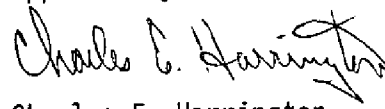
Sherman Cove

Spring Brook

The Graves

West Penobscot Bay

Approved by:

Charles E. Harrington
Chief Geographer
Nautical Charting Division

NON-FLOATING AIDS OR LANDMARKS FOR CHARTS

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

Page 1 of 2

<input checked="" type="checkbox"/> TO BE CHARTED <input type="checkbox"/> TO BE REVISED <input type="checkbox"/> TO BE DELETED		REPORTING UNIT (If field party, Ship or Office) Coastal Mapping Unit AMC, Norfolk, VA	STATE Maine	LOCALITY Penobscot Bay	DATE 4/20/83	ORIGINATING ACTIVITY <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 (See reverse for responsible personnel)		
OPR PROJECT NO.		JOB NUMBER CM-8101	SURVEY NUMBER TP-01113	DATUM NA 1927		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.)	POSITION		LONGITUDE	OFFICE	FIELD	CHARTS AFFECTED	
		LATITUDE	LONGITUDE					
		° / ' " D.M. Meters	° / ' " D.P. Meters					
SPIRE	(Duck Trap Church Spire, 1861)	44 17	26.890 69 00	31.376	82 C(C) 3575 6/27/82		13302	
SILLO		44 16.2	69 00.9		Not Identifiable		13302	
MONUMENT	(Mount Battie Memorial Observatory, 1934)	44 13	21.758 69 04	10.820	82 C(C) 3573 6/27/82		13302 13307	
STACK	(Camden White Brick Stack, 1934)	44 12	36.574 69 04	03.401	82 C(C) 3573 6/27/82		13302 13307	
CLOCK TR	(Rockport Schoolhouse Clock Tower, 1911)	44 11	19.965 69 04	23.302	82 C(C) 3572 6/27/82		13302 13307	
CUP	(Rockport White Square Cupola, 1934)	44 11	11.50 69 04	12.12	82 C(C) 3572 6/27/82		13302 13307	
TOWER	(Indian Island Lighthouse, 1902)	44 09	55.436 69 03	41.429	82 C(C) 3572 6/27/82		13302 13307	
MOVIE SCREEN		44 09	35.34 69 05 1091	11.07 246	82 C(C) 3572 6/27/82		13302	

RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
OBJECTS INSPECTED FROM SEAWARD	
POSITIONS DETERMINED AND/OR VERIFIED	P. L. Evans, Jr.
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES	<input type="checkbox"/> PHOTO FIELD PARTY <input type="checkbox"/> HYDROGRAPHIC PARTY <input type="checkbox"/> GEODETIC PARTY <input type="checkbox"/> OTHER (Specify)
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 L - Located V - Verified 1 - Triangulation 2 - Traverse 3 - Intersection 4 - Resection P - Photogrammetric Vis - Visually 5 - Field identified 6 - Theodolite 7 - Planetable 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

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

**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 OR LANDMARKS FOR CHARTS										ORIGINATING ACTIVITY															
TO BE CHARTED <input checked="" type="checkbox"/> TO BE REVISED <input type="checkbox"/> TO BE DELETED		REPORTING UNIT (Field Party, Ship or Office) Coastal Mapping Unit AMC, Norfolk, VA		STATE Maine		LOCALITY Penobscot Bay		DATE 4/20/83		<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 (See reverse for responsible personnel)															
The following objects HAVE <input type="checkbox"/> HAVE NOT <input checked="" type="checkbox"/> been inspected from seaward to determine their value as landmarks.		JOB NUMBER		SURVEY NUMBER		DATUM		METHOD AND DATE OF LOCATION (See instructions on reverse side)		CHARTS AFFECTED															
OPR PROJECT NO.		CM-8101		TP-01113		NA 1927				OFFICE		FIELD													
CHARTING NAME		DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses.)		LATITUDE ° / ' D.M. Meters		LONGITUDE ° / ' D.P. Meters																			
LIGHT		(Northeast Point Light, 1953) Northeast Point Light 2		44 12		30.40		69 02		49.33		82 C(C) 3573 6/27/82				13302 13307									
DAYBEACON		(Inner Ledges, Spindle, 1904) Inner Ledges Daybeacon 3		44 12		25.640		69 02		48.818		82 C(C) 3573 6/27/82				13302 13307									
LIGHT		(Negro Island Lighthouse, 1904) Curtis Island Light		44 12		04.634		69 02		57.760		82 C(C) 3573 6/27/82				13302 13307									
LIGHT		(The Graves, Light, 1953) The Graves Light 5		44 10		55.63		69 02		08.53		82 C(C) 3572 6/27/82				13302 13307									
LIGHT		(Lowell Rock Light, 1953) Lowell Rock Light 2		44 09		45.94		69 03		38.75		82 C(C) 3572 6/27/82				13302 13307									
DAYBEACON		Seal Ledge Daybeacon 4		44 10.4				69 03.9				Not Identifiable				13302 13307									
DAYBEACON		Shipyard Ledge Daybeacon 5		44 11.0				69 04.5				Not Identifiable				13302 13307									

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RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
OBJECTS INSPECTED FROM SEAWARD	
POSITIONS DETERMINED AND/OR VERIFIED	P. L. Evans, Jr.
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES	<input type="checkbox"/> PHOTO FIELD PARTY <input type="checkbox"/> HYDROGRAPHIC PARTY <input type="checkbox"/> GEODETIC PARTY <input type="checkbox"/> OTHER (Specify)
INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'	
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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 L - Located V - Verified 1 - Triangulation 2 - Traverse 3 - Intersection 4 - Resection 5 - Field identified 6 - Theodolite 7 - Planetable 8 - Sextant A. Field positions* require entry of method of location and date of field work. EXAMPLE: F-2-6-L 8-12-75	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

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