

T- 12994

T- 12994

NOAA FORM 76-35 (6-80)	
U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SURVEY	
DESCRIPTIVE REPORT	
Map No. T-12994	Edition No. 1
Job No. PH-6411	
Map Classification CLASS III (FINAL), (PARTIALLY FIELD EDITED)	
Type of Survey SHORELINE	
LOCALITY	
State ALASKA	
General Locality VALDEZ ARM	
Locality GALENA BAY	
19 65 TO 19	
REGISTERED IN ARCHIVES	
DATE	

NOAA FORM 76-36A (3-72)		U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.		TYPE OF SURVEY		SURVEY TR <u>-12994</u>	
DESCRIPTIVE REPORT - DATA RECORD				<input checked="" type="checkbox"/> ORIGINAL		MAP EDITION NO. (1)	
				<input type="checkbox"/> RESURVEY		MAP CLASS III (FINAL)	
PHOTOGRAMMETRIC OFFICE COASTAL MAPPING DIVISION ATLANTIC MARINE CENTER, NORFOLK, VA				<input type="checkbox"/> REVISED		JOB PH-6411	
				LAST PRECEDING MAP EDITION			
OFFICER-IN-CHARGE				TYPE OF SURVEY		JOB PH-_____	
Jeffrey G. Carlen, Cdr.				<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			
Compilation (Pre Hydro Support) Dec. 30, 1964				Horizontal Control June 3, 1965			
Memo (Project Planning) May 28, 1965				(Premarking)			
Aerotriangulation Sept. 2, 1965							
Aerotriangulation (Amend I) Oct. 11, 1965							
Compilation (Supp. I) Nov. 9, 1965							
Compilation (Amend I) Feb. 7, 1966							
Aerotriangulation Nov. 8, 1966							
Compilation (Amend II) Jan. 9, 1967							
Compilation (Supp. II) Feb. 7, 1972							
II. DATUMS							
1. HORIZONTAL: <input checked="" type="checkbox"/> 1927 NORTH AMERICAN				OTHER (Specify)			
2. VERTICAL: <input checked="" type="checkbox"/> MEAN HIGH-WATER				OTHER (Specify)			
<input type="checkbox"/> MEAN LOW-WATER							
<input checked="" type="checkbox"/> MEAN LOWER LOW-WATER							
<input type="checkbox"/> MEAN SEA LEVEL							
3. MAP PROJECTION				4. GRID(S)			
Polyconic Projection				STATE Alaska		ZONE 3	
5. SCALE				STATE		ZONE	
1:10,000							
III. HISTORY OF OFFICE OPERATIONS							
OPERATIONS				NAME		DATE	
1. AEROTRIANGULATION BY				W. Heinbaugh		Nov. 1965	
METHOD: Stereoplanigraph LANDMARKS AND AIDS BY							
2. CONTROL AND BRIDGE POINTS PLOTTED BY				A. Roundtree		Nov. 1965	
METHOD: Coradomat CHECKED BY							
3. STEREOSCOPIC INSTRUMENT PLANIMETRY BY				F. Margiotta		Apr. 1972	
COMPILATION CHECKED BY				R. White		Apr. 1972	
INSTRUMENT: Wild B-8				NA			
SCALE: 1:15,000				NA			
4. MANUSCRIPT DELINEATION PLANIMETRY BY				F. Margiotta		Apr. 1972	
CHECKED BY				R. Pate		Apr. 1972	
METHOD: Smoothe drafted				NA			
CHECKED BY				NA			
SCALE: 1:10,000 HYDRO SUPPORT DATA BY				F. Margiotta		Apr. 1972	
CHECKED BY				R. Pate		Apr. 1972	
5. OFFICE INSPECTION PRIOR TO FIELD EDIT BY				R. Pate		Apr. 1972	
(Partial field edit) BY				J. Minton		Nov. 1974	
6. APPLICATION OF FIELD EDIT DATA CHECKED BY				A. Rauck		Dec. 1974	
7. COMPILATION SECTION REVIEW (Advance Class III) BY				A. Rauck		Dec. 1974	
8. FINAL REVIEW Final Class III BY				J. Hancock		July 1984	
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH BY				J. Hancock		Aug. 1984	
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH BY				P. Hawkins		DEC 1984	
11. MAP REGISTERED - COASTAL SURVEY SECTION BY				R. S. KORNSPAN		FEB 1985	

NOAA FORM 76-36B
(3-72)U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEYT-12994
COMPILATION SOURCES

1. COMPILATION PHOTOGRAPHY

CAMERA(S) Wild RC-8 "L" (L=152.21 mm)		TYPES OF PHOTOGRAPHY LEGEND		TIME REFERENCE	
TIDE STAGE REFERENCE <input checked="" type="checkbox"/> PREDICTED TIDES <input type="checkbox"/> REFERENCE STATION RECORDS <input type="checkbox"/> TIDE CONTROLLED PHOTOGRAPHY		(C) COLOR (P) PANCHROMATIC (I) INFRARED		ZONE Alaska	<input checked="" type="checkbox"/> STANDARD
				MERIDIAN 150th	<input type="checkbox"/> DAYLIGHT
NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE	
65 L(C) 4524 - 4528	July 6, 1965	11:45	1:15,000	1.8 ft. above MLLW	
65 L(C) 4575 - 4579	July 6, 1965	12:20	1:15,000	1.8 ft. above MLLW	
65 L(P) 4383 - 4386	July 6, 1965	09:08	1:30,000	5.2 ft. above MLLW	
Mean Tide Range = 9.6Ft.					

REMARKS Photographs based on predicted tide data are referenced to reference station Cordova, Alaska and subordinate station Rocky Point, Alaska.

2. SOURCE OF MEAN HIGH-WATER LINE:

The Mean High Water Line was compiled from office interpretation of the above listed 1:30,000 scale compilation/bridging panchromatic photographs using stereo instrument methods.

3. SOURCE OF ~~MEAN HIGH-WATER LINE~~ MEAN LOWER LOW-WATER LINE:

The Mean Lower Low Water was graphically compiled from the above listed 1:15,000 scale color photographs ratioed to the 1:10,000 map scale.

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
H-9422	1974	Registered			

5. FINAL JUNCTIONS

NORTH	EAST	SOUTH	WEST
T-12991	T-12995	*T-12998	No survey

REMARKS

*No approximate MLLW line was compiled for T-12998. See Compilation Report item #35.

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HISTORY OF FIELD OPERATIONSI. ☒ FIELD INSPECTION OPERATION (PREMARKING) ☐ FIELD EDIT OPERATION

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	J. Watkins, Jr.	June 1965
2. HORIZONTAL CONTROL	RECOVERED BY JMC	June 1965
	ESTABLISHED BY J. Watkins, Jr.	June 1965
	PRE-MARKED OR IDENTIFIED BY JMC	June 1965
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 J. Childs	June 1965
	LOCATED (Field Methods) BY None	
	IDENTIFIED BY None	
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION	
	<input type="checkbox"/> COMPLETE	
	<input type="checkbox"/> SPECIFIC NAMES ONLY	
	<input checked="" type="checkbox"/> NO INVESTIGATION	
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY None	
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY None	

II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED
Premarked (Paneled)

2. VERTICAL CONTROL IDENTIFIED

NA

PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION
65L(P)4384	SIDE, 1901 (Paneled direct)		
65L(P)4407	MIST, 1965 (Paneled direct)		
65L(P)4384	ROCK, R.M. 3, 1942(Paneled direct)		

3. PHOTO NUMBERS (Clarification of details)

None

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

None

PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME

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

7. SUPPLEMENTAL MAPS AND PLANS

None

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

3 Forms 152 (CSI Cards), Field Report (2pages)

T-12994

HISTORY OF FIELD OPERATIONS

I. ☐ FIELD INSPECTION OPERATION☒ FIELD EDIT OPERATION (Partial)

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY (NOAA Ship Davidson)	M. Fleming	May 1974
2. HORIZONTAL CONTROL	RECOVERED BY ESTABLISHED BY PRE-MARKED OR IDENTIFIED BY	None None None
3. VERTICAL CONTROL	RECOVERED BY ESTABLISHED BY PRE-MARKED OR IDENTIFIED BY	NA NA NA
4. LANDMARKS AND AIDS TO NAVIGATION	RECOVERED (Triangulation Stations) BY LOCATED (Field Methods) BY IDENTIFIED BY	None None None
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION <input type="checkbox"/> COMPLETE <input type="checkbox"/> SPECIFIC NAMES ONLY <input checked="" type="checkbox"/> NO INVESTIGATION	
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY	None
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY	None

II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED

None

2. VERTICAL CONTROL IDENTIFIED

NA

PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION

3. PHOTO NUMBERS (Clarification of details)

None

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

None

PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME

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

7. SUPPLEMENTAL MAPS AND PLANS

None

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

1 1:20,000 Photo Reduced Field Edit Print (Film)

1 Field Edit Report

I. MANUSCRIPT COPIES

COMPILATION STAGES			DATE MANUSCRIPT FORWARDED	
DATA COMPILED	DATE	REMARKS	MARINE CHARTS	HYDRO SUPPORT
Compilation complete, pending field edit	Apr. 1972	Class III Superseded	None	Apr. 1972
Partial field edit applied Compilation complete	Dec. 1974	Advanced Class III	Mar. 1977	Dec. 1974
Final Review, Class III	July 1984	Final Class III Map		

II. LANDMARKS AND AIDS TO NAVIGATION

1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH

(Pages) NUMBER	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED	REMARKS
1			Aid to be charted

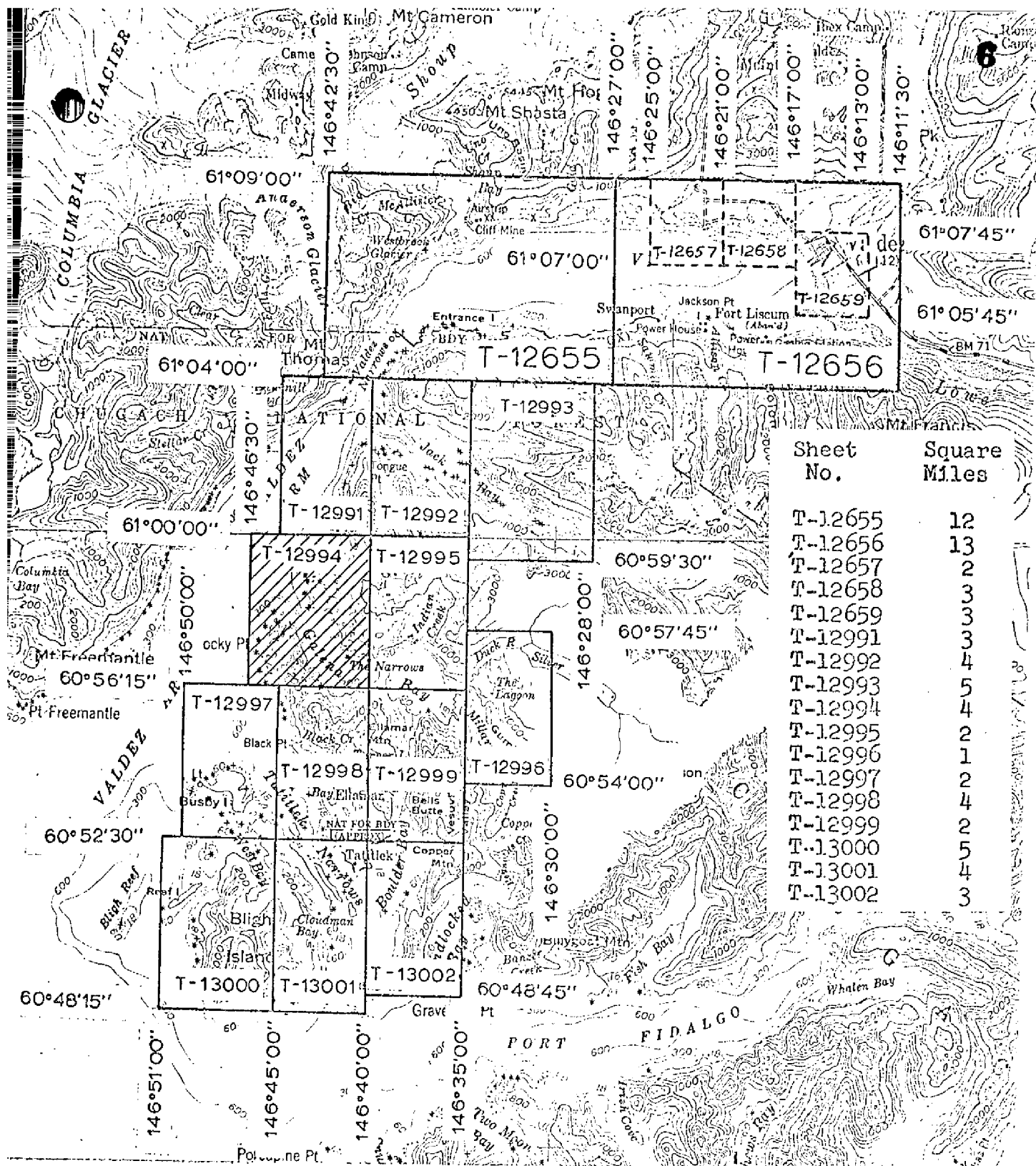
2. ☐ REPORT TO MARINE CHART DIVISION, COAST PILOT BRANCH. DATE FORWARDED: _____
3. ☐ REPORT TO AERONAUTICAL CHART DIVISION, AERONAUTICAL DATA SECTION. DATE FORWARDED: _____

III. FEDERAL RECORDS CENTER DATA

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



JOB PH-6411 SHORELINE MAPPING

1:5,000, 1:10,000 & 1:20,000 SCALE

VALDEZ ARM

ALASKA

SUMMARY TO ACCOMPANY
DESCRIPTIVE REPORT
T-12994

This 1:10,000 scale final Class III shoreline map is one of seventeen maps that comprise project PH-6411, Valdez Arm, Alaska. The project consists of two 1:20,000, three 1:5,000 and twelve 1:10,000 scale maps. The project originally pertained to the Port Valdez area but was extended south to include the east shore of Valdez Arm and Tatitlek Narrows.

The purpose of this map was to provide shoreline data in support of hydrographic operations.

This map portrays the shoreline along a portion of Valdez Arm and includes the entrance to Galena Bay.

Photo coverage for this map was adequately provided by 1:30,000 scale panchromatic and 1:15,000 scale color photographs. All photography was taken July 6, 1965 with the RC-8 (L) camera. The panchromatic photographs were used for aerotriangulation, compilation and photo-hydro support. The low altitude color photographs were used to assist the compiler in offshore interpretation. They were also ratioed to map scale and used to graphically compile low water features.

Field work prior to compilation consisted of the recovery, establishment, and identification (premarking) of horizontal control necessary for aerotriangulation. Also, the field party was responsible for assisting in obtaining the aerial photography. This activity was performed in June/July 1965.

Analytic aerotriangulation was adequately provided by the Washington Science Center November 3, 1965. This activity also included ruling the base manuscripts and providing ratio photographs for compilation.

Compilation by interpretation of the 1:30,000 scale photographs was performed at the Coastal Mapping Section, Atlantic Marine Center, April 1972. The 1:15,000 scale color photographs, taken at 1.8 feet above MLLW, were ratioed to map scale and were used graphically to delineate the MLLW line. Photo-hydro support data involving the original Class III manuscript was forwarded to the hydrographer.

A partial field edit was conducted May 1974 by hydrographic personnel assigned to the NOAA Ship DAVIDSON. The area field edit was confined to the navigable area survey limits of H-9422. Field edit did not include verification of shoreline or alongshore compilation, but primarily was involved with locating offshore rocks and ledge limits. This data was returned to the coastal mapping office and applied to the manuscript in December 1974. A copy of the advanced Class III manuscript was forwarded to the hydrographic processing unit for smooth sheet application.

Final review was performed at the Atlantic Marine Center July 1984. A Chart Maintenance Print was prepared and forwarded to the Marine Chart Branch.

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

FIELD INSPECTION

T-12994

There was no field inspection prior to compilation. Field work accomplished was limited to the recovery, establishment and identification (premarking) of the horizontal control necessary for the aerotriangulation of the project.

Project 21423(4)
Valdez, Alaska
June, 1965

All horizontal control stations required for photo control were identified with the exception of CROMBIE, 1941 (T-12656). This station was on a high ridge still covered with considerable snow. Identification would probably have been doubtful. Station FILL (temporary) was established by tellurometer traverse and its substitute stations are identifiable on the same flight line of photographs that would cover CROMBIE. Station PIT (temporary) was determined by triangulation methods. Stations PIT and FILL replaces VALDEZ SOUTHEAST BASE, 1941 and VALDEZ NORTHWEST BASE, 1941.

Station MAS (temporary) (t-12655) was determined by triangulation intersection methods. Station SPIT 2 (temp.) was determined by triangulation methods to replace station SPIT, 1901.

Station HUT 3, 1965 was identified in lieu of station HUT 2 which was reported lost. The unadjusted field position was not available at the time of identification as the geodetic party had only recently occupied the station.

Submitted:

RBW
RM Robert B. Melby

Approved:

John B. Watkins, Jr.
John B. Watkins, Jr.
Chief of Party

Project 21423(11)
Tatilek Narrows, Alaska
June 1965

All horizontal control stations required for photo control were identified and paneled. Two new stations were located by triangulation intersection methods and six by closed loop tellurometer traverse.

Station MAS (temp.) was located and its position is submitted with the Valdez, Alaska field data, project 21423(4). The recovery note for HUT3, 1965 was also submitted with the Valdez field data.

Submitted:

RBm

Robert B. Melby

Approved:

JBW
John B. Watkins, Jr., CDR, C&GS
Comdg., Ship HODGSON

Photogrammetric Plot Report
Tatitlek Narrows, Alaska
Job PH-6411

21. Area Covered

The project covers the east shore of Valdez Arm and all of Tatitlek Narrows area. The T-sheets in this area are: T-12991 through 12999 and T-13000 through T-13002.

22. Method

Six bridges were run on the stereoplanigraphs and adjusted by IBM 1620 methods. All tie points between strips were averaged. Tie points were also established in the area of Port Valdez Bay; to be bridged at a later date.

23. Adequacy of Control

The premarked control provided was adequate with the exception of BUSBY, 1942. The panels at this station blended into the background on the black and white photograph and could not be seen. The overhang and shadows of trees also made it difficult to see Busby Island Lt., 1947, which was in the immediate vicinity of BUSBY, 1942.

Strip #12 was based on a three point solution using stations JACK, 1901, OVAL, 1965 and SLIM, 1965. Stations OVAL and SLIM were established with very slim angles and no means of checking their accuracy was available. Although adjustment held all three stations with small errors of closure, an error may still exist in the area of Jacks Bay.

All additional control held within National Map Accuracy Standards for 1:10,000 scale mapping.

24. Supplemental Data

USGS Quads, Cordova D-8 and Valdez A-8, scale 1:63,360 were used to provide basic vertical control for bridging operations.

25. Photography

Photography was adequate in coverage, overlap and definition.

26. Plotting Constants

Plotting constants for 1:10,000 scale manuscripts were provided for all bridge points.

27. Ratios

Ratios for 1:10,000 scale photography were provided for all strips.

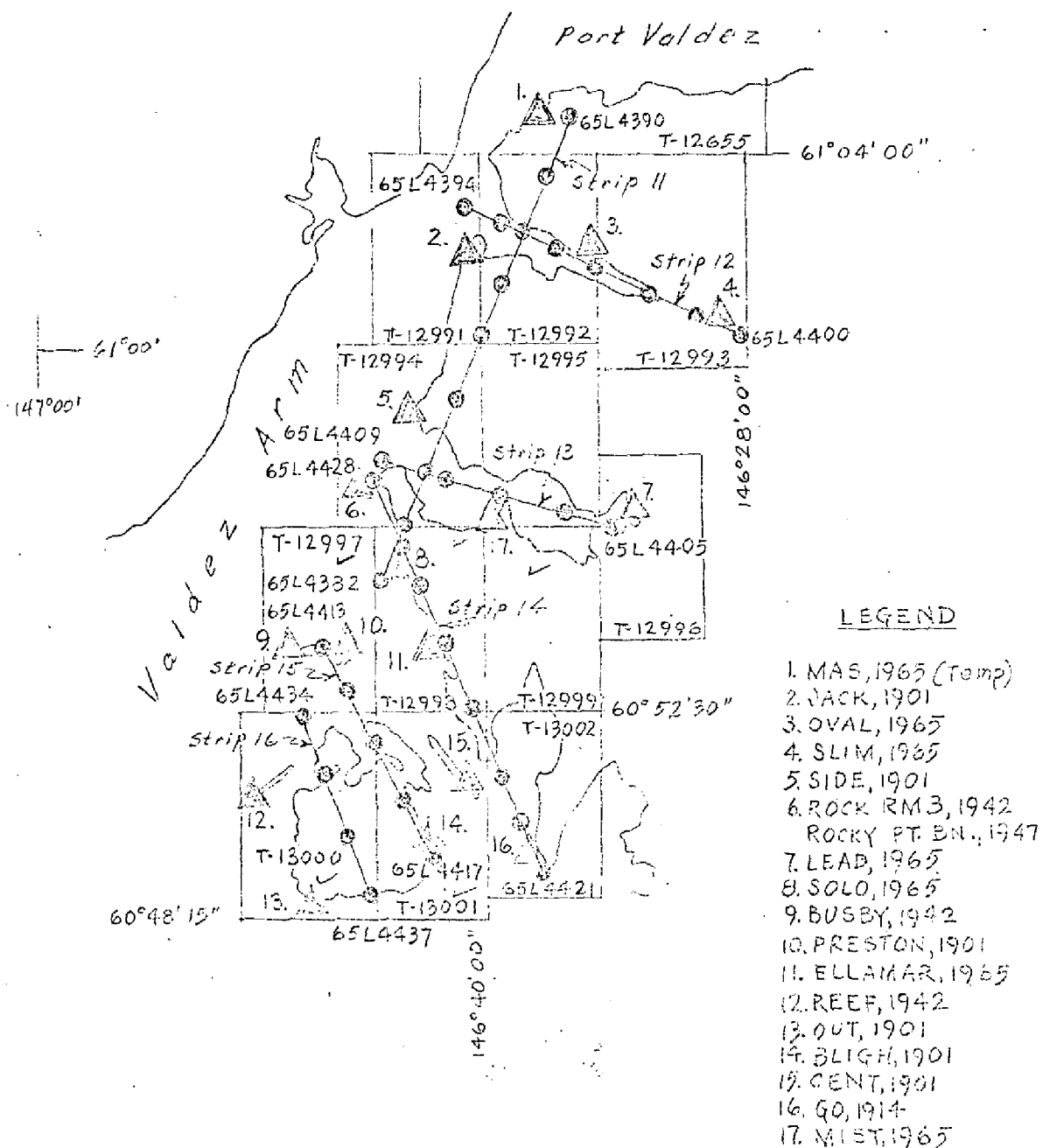
Submitted by:

Wallace Heinbaugh
Wallace Heinbaugh

Approved by:

November 3, 1965

John D. Perrow, Jr.
John D. Perrow, Jr.



TATITLEK NARROWS, ALASKA

PH-6411

Nov. 1965

DESCRIPTIVE REPORT CONTROL RECORD

MAP NO.	STATION NAME	JOB NO.	GEODETIC DATUM		AEROTRIANGULATION POINT NUMBER	SOURCE OF INFORMATION (Index)	COORDINATES IN FEET		GEOGRAPHIC POSITION		ORIGINATING ACTIVITY		REMARKS
			STATE	ZONE			Alaska	φ	λ	Division, AMC, Norfolk, Virginia	Coastal Mapping		
T-12994		PH-6411											
	SIDE, 1901	G.P. Vol VI P. 2	x=	y=			φ	λ	60 58 55.508	1718.1	(139.1)	FORWARD	BACK
	GALE, 1901	G.P. Vol VI P. 139	x=	y=			φ	λ	146 43 38.951	585.8	(316.5)		
	GALE 1, 1901	G.P. Vol VI P. 140	x=	y=			φ	λ	60 57 55.729	1725.0	(132.2)		
	GALE 2, 1901	G.P. Vol VI P. 140	x=	y=			φ	λ	146 44 42.376	637.6	(265.2)		
	GALE 4, 1901	G.P. Vol VI P. 140	x=	y=			φ	λ	60 57 28.09	869.5	(987.7)		
	GALE 6, 1901	G.P. Vol VI P. 141	x=	y=			φ	λ	146 43 50.34	757.6	(145.5)		
	ROCK, 1901	G.P. Vol VI P. 3	x=	y=			φ	λ	60 58 01.93	59.7	(1797.5)		
	ROCKY POINT BEACON, 1947	G.P. Vol VI P. 66	x=	y=			φ	λ	146 43 04.56	68.6	(834.2)		
	LENA, 1965	No Position	x=	y=			φ	λ	60 57 23.71	733.9	(1123.3)		
	MIST, 1965	IBM Readout - Bridge	x=	y=			φ	λ	146 42 05.20	78.3	(824.8)		
	COMPUTED BY	A. C. Rauck, Jr.	COMPUTATION CHECKED BY		F. Margiotta	DATE		2/08/72					
	LISTED BY		LISTING CHECKED BY			DATE							
	HAND PLOTTING BY		HAND PLOTTING CHECKED BY			DATE							

DESCRIPTIVE REPORT CONTROL RECORD

MAP NO.	JOB NO.	PH-6411	GEODETTIC DATUM		NA	1927	GEOGRAPHIC POSITION		ORIGINATING ACTIVITY	REMARKS																																																				
			STATE	ZONE			ϕ LATITUDE	λ LONGITUDE																																																						
T-12994	PH-6411	SOURCE OF INFORMATION (Index)	AEROTRI- ANGULATION POINT NUMBER	COORDINATES IN FEET	STATE	ZONE	3	ALASKA	Division, AMC, Norfolk, Virginia	Coastal Mapping																																																				
											ROCK, R.M. 3, 1942	IBM Readout - Bridge	y=	2,540,369.0	ϕ	FORWARD	BACK																																													
																		x=	363,739.6	λ	369.0 (4631.0)	3739.6 (1260.4)																																								
																							x=	ϕ																																						
																											y=	λ																																		
																															x=	ϕ																														
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y=	λ																																																													
				COMPUTED BY	A. C. Rauck, Jr.	DATE	2/08/72	F. Margiotta	DATE	2/08/72																																																				
											LISTED BY	DATE			DATE																																															
																	HAND PLOTTING BY	DATE			DATE																																									

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

COMPILATION REPORT
T-12994

31 - DELINEATION

Delineation was accomplished using stereo instrument and graphic compilation methods. The Wild B-8 plotter was used to delineate shoreline, alongshore and interior detail based upon office interpretation of the 1:30,000 scale bridging/compilation panchromatic photographs.

Color photographs at 1:15,000 scale were provided to assist in photo interpretation of the compilation photography. They were also used to graphically delineate alongshore and offshore detail.

All photographs used to compile this map are listed on NOAA Form 76-368. The photography was adequate.

32 - CONTROL

Refer to the Photogrammetric Plot Report dated November 3, 1965.

33 - SUPPLEMENTAL DATA

None.

34 - CONTOURS AND DRAINAGE

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

35 - SHORELINE AND ALONGSHORE DETAILS

The MHW line was compiled from office interpretation of the 1:30,000 scale compilation photographs. Alongshore detail was compiled using both the panchromatic and color photographs as described in item #31.

36 - OFFSHORE DETAILS

Offshore detail was compiled by instrument and graphic methods as described in item #31. The 1:15,000 color photographs were ratioed to map scale and were used to graphically compile the approximate MLLW line and ledge limits. This compilation of low water features was restricted to only three maps (T-12991, T-12992, T-12994) based on the color ratio photos provided.

37 - LANDMARKS AND AIDS

One navigational aid was photo verified and submitted for field edit.

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38 - CONTROL FOR FUTURE SURVEYS

None.

39 - JUNCTIONS

Refer to the Date Record Form 76-36B, Item 5. A MLLW line was not compiled on adjoining map T-12998. See Item #36 for remarks concerning the delineation of this feature.

40 - HORIZONTAL AND VERTICAL ACCURACY

Refer to the Photogrammetric Plot Report dated November 3, 1965.

46 - COMPARISON WITH EXISTING MAPS

A comparison was made with the following U.S.G.S. Quadrangle: Cordova, (D-8), Alaska, dated 1952, scale 1:63,360.

47 - COMPARISON WITH NAUTICAL CHARTS

A comparison was made with the following U.S. Coast and Geodetic Survey Chart: 8519, 8th edition, dated May 17, 1965, scale 1:79,291.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY

None.

ITEMS TO BE CARRIED FORWARD

None.

Submitted by

F. Margiotta
for F. Margiotta
Cartographic Technician
April 1972

Approved,

Albert C. Rauck, Jr.
for Albert C. Rauck, Jr.
Chief, Coastal Mapping Section, AMC

ADDENDUM TO THE COMPILATION REPORT

T-12994

FIELD EDIT

A very small portion of field edit was accomplished for this map in conjunction with Hydro Survey H-9422. Actually, the original Class III delineation was not verified. Since the contemporary hydro survey was a navigable area survey, it was not concerned with shoreline detail. Primarily, the field edit activity involved the location of offshore rocks along Valdez Arm.

Partial field edit was applied from 1:20,000 scale photo reduction of manuscript and abstract of fixes included in the Field Edit Report. Fixes were taken with MiniRanger gear primarily, although sextant fixes were also given, with a few exceptions, for comparison. In general, the MiniRanger arcs failed to define a specific point but scribed open triangles as large as 20 meters. All sextant fixes for T-12991, T-12992 and T-12994 were computer plotted on an overlay and transferred to the appropriate manuscript. The large distances between hydro signals made the use of a 3-leg protractor impractical. The compilation photography was not in the office at the time field edit was applied, so the actual delineation of two reefs at Latitude 60°58' is still in question. Several questions asked on the field edit ozalid remain unanswered, and the Galena Bay area was not edited.

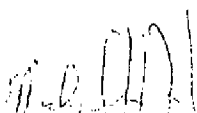
FIELD EDIT REPORT

OPR-999 1974

HYDROGRAPHIC SURVEY # H-9422

Field Number DA-20-1-74

by NOAA Ship DAVIDSON



M.H. Fleming, COMDG

1. INTRODUCTION

Field editing was not a requirement for this navigable area survey of Valdez Arm, from Rocky Point in the south to a mile north of Entrance Point day beason in Prince William Sound. In spite of the fact that there was no requirement, it was decided to quickly check the shoreline for major discrepancies of off-lying rocks that would be a hazard to navigation in this area. This generally consisted of obtaining fixes at the limit of reefs, islands, and points which extended to seaward. Also, no final shoreline plot was available of the area from Sawmill Bay to one mile north of Potato Point. This area is covered on T-12991, and a final (field) plot of the shoreline was made by taking fixes and simultaneous sketches of the beach; then later piecing this data together to obtain the high water line, rocks, bluffs and low water line. (See Section 2 for further explanation of this technique.)

2. METHODS

The shoreline plotted on the final smooth boat sheet came from following sheets:

TP-00264	Sawmill Bay, Alaska (paper Ozalid)
T-12991	Potato Point, Alaska
T-12994	Galena Bay, Alaska
T-12992	Entrance Point, Alaska

TP-00264 was a 1:20000 scale manuscript; whereas, the three T-sheets listed were initially drawn at 1:10,000 and photo-reduced to 1:20,000, which enabled us to use them directly to trace the shoreline onto the position and sounding overlays and to plot fixes. (All position information has been denoted on these four sheets in violet ink.)

The eastern shore of Valdez Arm was edited conventionally, using three-point sextant fix for control. Triangulation stations were used as objects for all these fixes (numbers 3 through 40). A somewhat different approach was taken on the western side. Mini-Ranger III by Motorola, a range-range electronic navigator, as well as sextant angles, were used for fixes 2001 to 2053. The mini-ranger navigator was mounted in an 18' Monarch aluminum skiff with an 85 horsepower outboard. The antenna was placed atop a ten foot 2X4 which was stayed-down to the corners of this square skiff, and two 12 volt car batteries were used for power. This skiff had draft of about 2.2 feet with the engine down and about 1.3 feet with the engine up, and this includes three people necessary for the operation. To take a fix with the mini-ranger gear, the skiff would be driven to the rock, bluff, low water line, or reef in question; and then when in position, a "hold display" button depressed on the navigator would "freeze" the two ranges so they could be copied by the recorder. At the time of the fix, sextant angles were also taken to various triangulation stations. The sextant angles were only meant to provide a solid check on the system and also as

further data with which accuracy of the mini-ranger could be examined (i.e., knowing the accuracy of the sextant fixes).

Plotting of all field edit data was initially done on the 1:20,000 scale boat sheet, position overlay. This was done because none of the T-sheets were large enough to plot all the triangulation, and also the position overlay already had the mini-ranger arcs drawn, as the mini-ranger was used entirely to control hydrography on this sheet. Once the positions (fixes) were plotted on the position overlay, they were then transferred to the appropriate shoreline manuscript. Next the field editor would go back to the smooth boat sheet and draw in the verified or compiled shoreline from these fixes plus sketches and field verification of shoreline features. No plotting or notes were made on the photographs.

Also, another item that was accomplished during the field editing was that all field notes in the form of fixes were "smoothed" out and logged on a homemade form. This was done so that notes would not become useless due to the fact that they could not be interpreted by someone other than the recorder. Also, this form would be an excellent start in plotting field edit positions with a computer-plotter. This form includes the time (all times are Zulu, 0° meridian), Julian Date, position number, a brief description of the feature, and the positional information, whether that be mini-ranger, sextant angles, or both. The data from this form could easily be digitized and, consequently, computer-plotted for quick verification.

3. ACCURACY

A complete analysis of the accuracy of the manuscript or the positional information was not undertaken at this time. Generally 3 to 5 meter discrepancies were found when comparing computed ranges with sextant angles - ranges obtained from the mini-ranger system. No attempt was made to compute differences between the simultaneous sextant cuts and mini-ranger fixes; however, the data for this is being inserted in this report for further development.

4. ADEQUACY OF COMPILATION

The manuscript appears to be adequate except, of course, in the area where no shoreline was available. Positions taken at high water and low water agree very well with those shown on the T-sheets. Again it is emphasized that a complete field edit job was not the intent, but simply a check of any overlooked rocks, ledges, and the delineation of the shoreline north of Sawmill Bay.

5. RECOMMENDATIONS

There are several recommendations I would like to suggest:

- a. Complete shoreline manuscript of the area from Sawmill Bay north should be photogrammetrically compiled.
- b. Make a computer plot of fixes; then compare these with the manuscript. I feel that my numbers are more accurate than the method in which they were plotted (i.e., with odessey and 3-arm protractors).
- c. The paper Ozalids are very prone to destruction when inundated by water, namely rain. The Alaskan climate is very wet, plus the fact that field edit on the DAVIDSON in Alaska is entirely done from a skiff which is further susceptible to salt spray. This paper becomes impossible to work with when even the slightest bit wet. Is there a better surface?
- d. As an aid in determining the accuracy of the mini-ranger for use in field edit applications, the given data could be analyzed.

Submitted by

John L. Oswald

John L. Oswald
Ltjg NOAA

REVIEW REPORT T-12994
SHORELINE

61. GENERAL STATEMENT

Final review for this final Class III map was accomplished at the Atlantic Marine Center in July 1984. For a schedule of the office and field operations, 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 U.S.G.S. quadrangle Cordova (D-8), Alaska, dated 1952, 1:63,360 scale.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS

A comparison was made with a registered copy of contemporary hydrographic survey H-9422, 1:20,000 scale, field surveyed in 1974.

A small portion of field edit was accomplished by the hydrographer to that area common to the hydrographic (navigable area) survey limits. Field edit primarily consisted of locating offshore rocks and ledge limits by hydrographic survey methods. Field edit did not include verification of shoreline nor alongshore compilation.

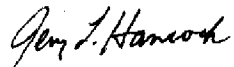
65. COMPARISON WITH NAUTICAL CHARTS

A comparison was made with NOS Charts: 16708, scale 1:79,291, 16th edition, dated October 3, 1981; and 16707, scale 1:40,000, 3rd edition, dated February 27, 1982.

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
Final Reviewer

Approved for forwarding,

Billy H. Barnes

Billy H. Barnes
Chief, Photogrammetric Section, AMC

Approved,

Peter J. ...

Chief, Photogrammetric Section, Rockville

Ronald K. Brewer

Chief, Photogrammetry Branch
Rockville

June 11, 1984

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-6411 (Valdez Arm - Tatitlek Narrows, Alaska)

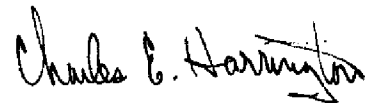
TP-12994

Galena Bay

Rocky Point

Valdez Arm

Approved by:



Charles E. Harrington
Chief Geographer
Nautical Charting Division

[illegible]

RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
OBJECTS INSPECTED FROM SEAWARD	M. Fleming
POSITIONS DETERMINED AND/OR VERIFIED	J. Oswald
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES	C. Blood

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

ORIGINATOR	
<input type="checkbox"/> PHOTO FIELD PARTY	
<input checked="" type="checkbox"/> HYDROGRAPHIC PARTY	
<input type="checkbox"/> GEODETIC PARTY	
<input type="checkbox"/> OTHER (Specify)	
FIELD ACTIVITY REPRESENTATIVE	
OFFICE ACTIVITY REPRESENTATIVE	
<input type="checkbox"/> REVIEWER	
<input type="checkbox"/> QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE	

