

T-12991

T-12991

NOAA FORM 76-35 (6-80)	
U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SURVEY	
DESCRIPTIVE REPORT	
Map No. T-12991	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 _____	
1965 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 XX T-12991	
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 PH. 6411	
PHOTOGRAMMETRIC OFFICE Coastal Mapping Division Atlantic Marine Center, Norfolk, Va				LAST PRECEDING MAP EDITION			
OFFICER-IN-CHARGE Jeffrey G. Carlen, 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			
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 <input type="checkbox"/> MEAN LOW-WATER <input checked="" type="checkbox"/> MEAN LOWER LOW-WATER <input type="checkbox"/> MEAN SEA LEVEL				OTHER (Specify)			
3. MAP PROJECTION				4. GRID(S)			
Polyconic Projection				STATE Alaska		ZONE 3	
5. SCALE 1:10,000				STATE		ZONE	
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		Mar. 1972	
COMPILATION CHECKED BY				R. White		Mar. 1972	
INSTRUMENT: Wild B-8				NA			
SCALE: 1:15,000				NA			
4. MANUSCRIPT DELINEATION PLANIMETRY BY				L. Graves		Mar. 1972	
CHECKED BY				R. White		Dec. 1972	
METHOD: Smooth drafted				NA			
CHECKED BY				NA			
SCALE: 1:10,000 HYDRO SUPPORT DATA BY				L. Graves		Mar. 1972	
CHECKED BY				R. White		Dec. 1972	
5. OFFICE INSPECTION PRIOR TO FIELD EDIT BY				R. White		Dec. 1972	
6. APPLICATION OF FIELD EDIT DATA (Partial field edit) BY				J. Minton		Nov. 1974	
CHECKED BY				A. Rauck		Nov. 1974	
7. COMPILATION SECTION REVIEW Advanced Class III BY				A. Rauck		Nov. 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 1985	
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-12991
COMPILATION SOURCES

1. COMPILATION PHOTOGRAPHY

CAMERA(S) Wild RC-8 "L", "E", "M"
L=152.21mm, E=152.71mm, M=88.20mmTYPES OF PHOTOGRAPHY
LEGEND

TIME REFERENCE

TIDE STAGE REFERENCE

- ☒ PREDICTED TIDES
☐ REFERENCE STATION RECORDS
☐ TIDE CONTROLLED PHOTOGRAPHY

- (C) COLOR
(P) PANCHROMATIC
(I) INFRARED

ZONE

Alaska

☒ STANDARD

MERIDIAN

150th

☐ DAYLIGHT

NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE
65 L(C) 4571 thru 4575	July 6, 1965	12:20	1:15,000	1.8 feet above MLLW
65 L(P) 4386 thru 4388	July 6, 1965	09:08	1:30,000	5.2 feet above MLLW
72 E(C) 4451 thru 4453	July 3, 1972	13:26	1:30,000	5.1 feet above MLLW
72 M(P) 1287 thru 1288	July 3, 1972	13:04	1:60,000	4.2 feet above MLLW
				Mean Tide Range = 9.6ft.
Photographs based on predicted tide data and are referenced to Reference Station Cordova, Alaska and subordinate Station Rocky Point, Alaska.				

REMARKS

The 1972 photographs are from adjoining project CM-7211, tide stage is referenced to same stations as 1965 photos.

2. SOURCE OF MEAN HIGH-WATER LINE:

The MHW line was compiled from office interpretation of the panchromatic photos taken in 1965 (65L(P)4386-4388) for the southeast portion of the map and photographs taken in 1972 (72M(P)1287-1288) for the northwest portion.

3. SOURCE OF MEAN LOWER LOW-WATER LINE:

The MLLW line was compiled for only the southeast portion of the map. It was graphically delineated from the 1965 (65L(C)4571-4575) 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-12655 1:20,000 scale	T-12992	T-12994	CM-7211 TP-00264 (1:20,000)

REMARKS

Y-12991

HISTORY OF FIELD OPERATIONS

1. ☒ 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 None	
	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 NONE	
	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)4395	JACK, 1901 (Paneled Direct)		

3. PHOTO NUMBERS (Clarification of details)
None4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED
None

PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME

5. GEOGRAPHIC NAMES: ☐ REPORT ☒ NONE6. BOUNDARY AND LIMITS: ☐ REPORT ☒ NONE7. SUPPLEMENTAL MAPS AND PLANS
None

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

1 Form 152 (CSI Card), Field Report (2Pages)

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HISTORY OF FIELD OPERATIONS

1. ☐ 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	None	
ESTABLISHED BY	None	
PRE-MARKED OR IDENTIFIED BY	None	
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	None	
LOCATED (Field Methods) BY	None	
IDENTIFIED BY	None	
5. GEOGRAPHIC NAMES INVESTIGATION TYPE OF INVESTIGATION <input type="checkbox"/> COMPLETE BY <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		2. VERTICAL CONTROL IDENTIFIED	
None		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 ☒ NONE

6. 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)
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
SE portion compilation complete; pending field edit.	Mar. 1972	Class III Superseded	None	April 1972
All compilation complete; pending field edit. Using photos from CM-7211.	Nov. 1972	Class III Superseded	None	Unknown
Partial field edit applied Compilation complete.	Nov. 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

NUMBER	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED	REMARKS

2. ☐ REPORT TO MARINE CHART DIVISION, COAST PILOT BRANCH. DATE FORWARDED: _____3. ☐ REPORT TO AERONAUTICAL CHART DIVISION, AERONAUTICAL DATA SECTION. DATE FORWARDED: _____

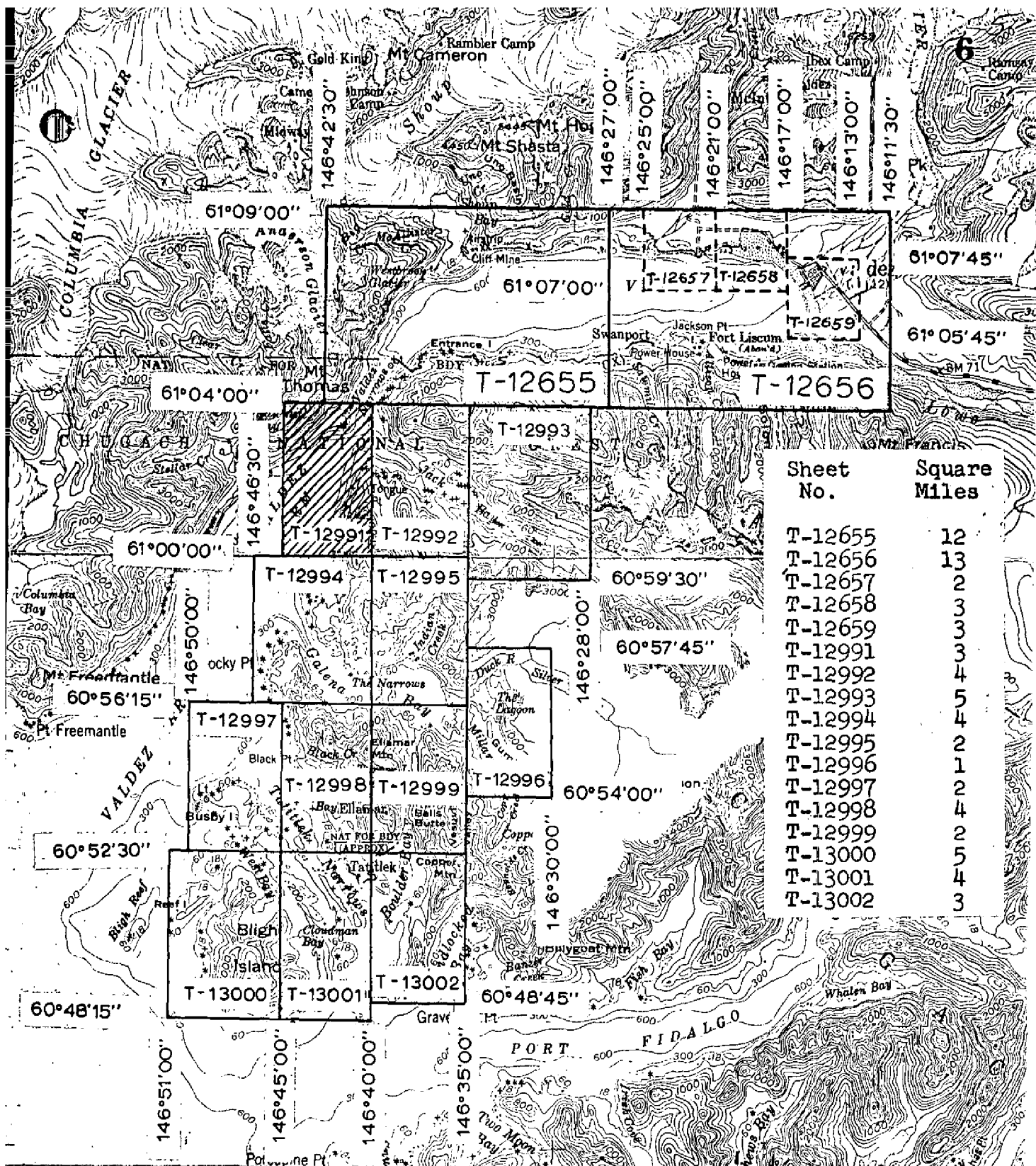
III. FEDERAL RECORDS CENTER DATA

1. ☒ BRIDGING PHOTOGRAPHS; ☒ DUPLICATE BRIDGING REPORT; ☒ COMPUTER READOUTS.
☒ 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 PH-6411
SHORELINE MAPPING
 1:5,000, 1:10,000 & 1:20,000 SCALE
VALDEZ ARM
ALASKA

SUMMARY TO ACCOMPANY
DESCRIPTIVE REPORT
T-12991

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 northern portion of Valdez Arm at the entrance to Valdez Narrows.

Photo coverage for this map was provided by 1965 and 1972 photography. The southeast portion of the map is covered by 1:30,000 scale panchromatic and 1:15,000 scale color photographs taken July 6, 1965 with the RC-8 (L) camera. The northwest portion of the map is covered by 1:60,000 scale panchromatic and 1:30,000 scale color photographs taken July 3, 1972 for adjoining project CM-7211. The panchromatic photos were taken with the RC-9 (M) camera and the color photos were taken with the RC-8 (E) camera. The panchromatic photographs were used for aerotriangulation and compilation. The low altitude color photographs were used to assist the compiler in offshore interpretation. They were also ratioed to map scale and used in some areas for graphic compilation of low water detail.

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 mapping photographs was performed at the Coastal Mapping Section, Atlantic Marine Center, December 1972. Compilation photography consisted of the 1965 project photographs and 1972 photographs provided for adjoining project CM-7211, Valdez Arm, West Side. 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 of field edit was restricted to the navigable area survey limits of H-9422. Field edit did not address the questionable areas of compilation as indicated on the field edit sheet, nor was the entire shoreline verified. Primarily, the edit was concerned with locating the offshore rocks and ledge limits within the hydro survey limits. The field edit data was returned to the coastal mapping office and applied to the manuscript in November 1974. A copy of the advanced Class III manuscript was forwarded to hydrographic processing for smooth sheet application.

T-12991

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

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-12991

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.

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:

JBW
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.

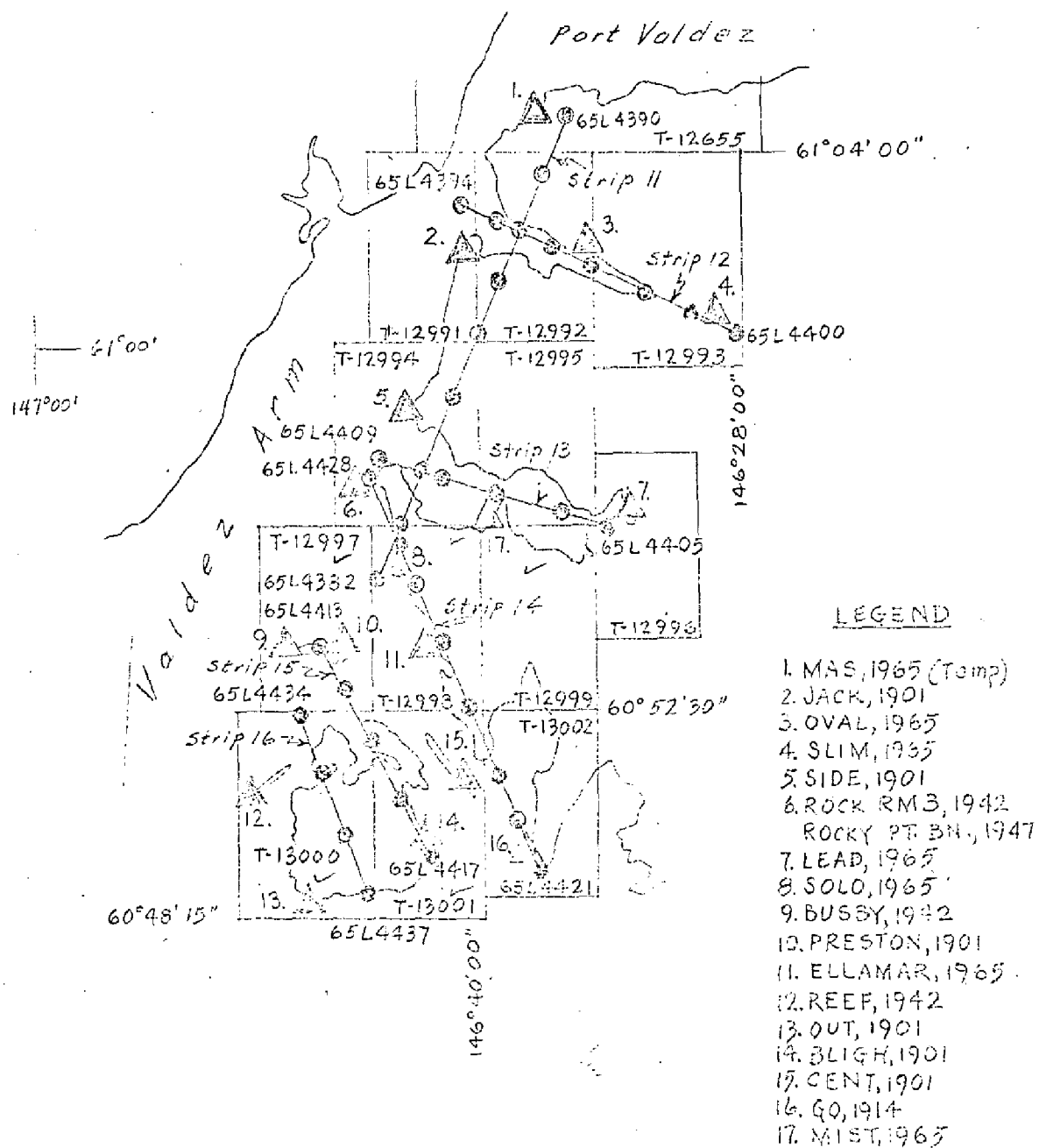
Submitted by:

Wallace Heinbaugh
Wallace Heinbaugh

Approved by:

November 3, 1965

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



TATITLEK NARROWS, ALASKA

PH-6411

Nov. 1965

PHOTOGRAMMETRIC PLOT REPORT
Prince William Sound, Alaska
Valdez Arm, West Side

Job CM-7211 *Plot Report applies*
September 1972 *to Map T-12991, PH-6411*

21. Area Covered

This report pertains to two sheets on the west side of Valdez Arm near the Port of Valdez, Alaska. The sheets covered are TP-00264 and TP-00265 at 1:20,000 scale.

22. Method

One strip (72-M-1280 thru 1288) of 1:60,000 scale panchromatic photography was bridged by analytic aerotriangulation methods. This strip was adjusted to Alaska state plane ground coordinates, zone 3. Points were established for determining ratios of 1:30,000 scale color support photography. Sufficient points for setting models were plotted on the Coradomat.

23. Adequacy of Control

The control was adequate. All points used in the adjustment were unadjusted field positions. Additional control points were plotted on the manuscripts. The positions for YOKE 1947, HEATHER 1947, DICK 1947 and POLE 1947 were from 1960 published data. All other plotted points are from 1970 published data.

24. Supplemental Data

No supplemental data was used.

25. Photography

The photography was adequate.

Respectfully submitted;

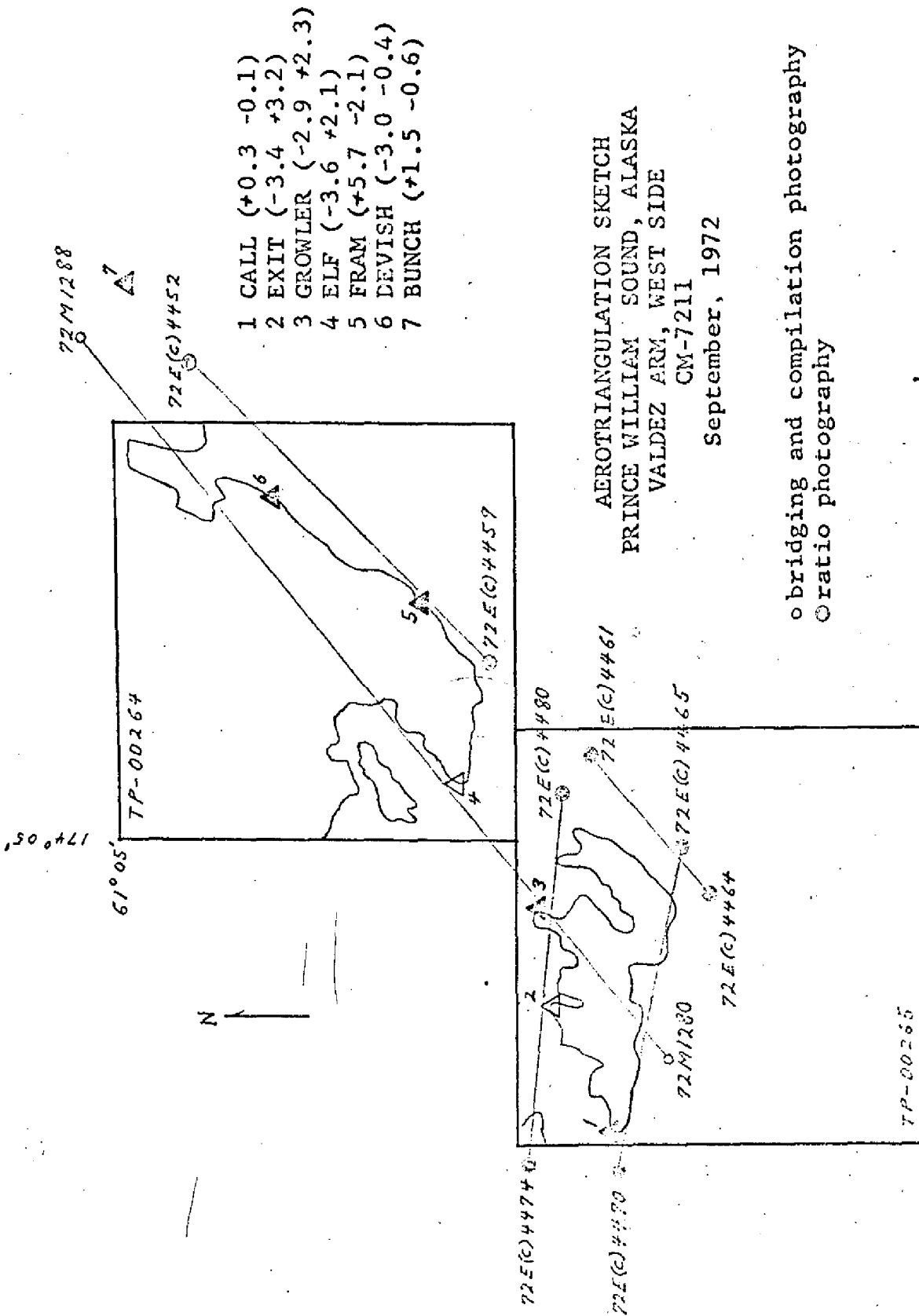
Don O. Norman

Don O. Norman, Cartographer

Approved and forwarded:

John D. Perrow, Jr.

John D. Perrow, Jr.
Acting Chief
Aerotriangulation Section



DESCRIPTIVE REPORT CONTROL RECORD

MAP NO.	STATION NAME	JOB NO.	PH-6411	GEODETTIC DATUM		COORDINATES IN FEET	GEOGRAPHIC POSITION		ORIGINATING ACTIVITY	
				STATE	ZONE		ϕ LATITUDE	λ LONGITUDE	Division, AMC, Norfolk, Virginia	Coastal Mapping
T-12991										
VIPER, 1947		G.P. Vol VI P. 2				X=	ϕ	61 02 50.988	1578.2	(279.0)
						Y=	λ	146 44 12.996	195.0	(705.5)
WHITE, 1901		G.P. Vol VI P. 139				X=	ϕ	61 02 53.55	1657.5	(199.7)
						Y=	λ	146 44 03.32	49.8	(850.7)
						X=	ϕ			
						Y=	λ			
JACK, 1901		G.P. Vol VI P. 2				X=	ϕ	61 01 52.982	1640.0	(217.2)
						Y=	λ	146 40 16.137	242.3	(658.6)
HUT 3, 1965		<i>HYDRO Control</i> H-9422				X=	ϕ	61 03 24.451	756.8	(1100.4)
						Y=	λ	146 41 40.621	609.5	(290.7)
						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	A. C. Rauck, Jr.			DATE	2/08/72	COMPUTATION CHECKED BY	F. Margiotta		DATE	2/08/72
LISTED BY				DATE		LISTING CHECKED BY			DATE	
HAND PLOTTING BY				DATE		HAND PLOTTING CHECKED BY			DATE	

COMPILATION REPORT
T-12991

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 photo interpretation of the bridging/compilation photographs.

Shoreline compilation for this map is divided into a northwest and southeast region. The northwest portion was compiled from 1972, 1:60,000 bridging/compilation panchromatic photographs furnished for adjoining project CM-7211, Valdez Arm, West Side. Supplemental 1:30,000 color photographs were ratioed to assist in the photo interpretation. The southwest portion of the map was compiled from the 1965 project bridging/compilation panchromatic photographs. Supplemental 1:15,000 color photographs were ratioed to graphically compiled offshore and MLLW detail.

All photographs used to compile this map are listed on NOAA Form 76-36B. No 1965 photography was provided for the northeast portion of the map. Adequate coverage for this area was provided by the 1972 photography. The quality of all photography was adequate.

32 - CONTROL

Refer to the Photogrammetric Plot Reports dated November 3, 1965 for the 1965 photographs and September 1972 for the 1972 photographs.

33 - SUPPLEMENTAL DATA

Control furnished for adjoining project CM-7211.

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 MHW line and alongshore detail were compiled from office interpretation of the 1:30,000 and 1:60,000 scale compilation photographs as described in item #31.

36 - OFFSHORE DETAILS

Offshore detail was primarily compiled by instrument methods using the bridging/compilation photos. The color photographs were used to assist in the interpretation of these features.

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No MLLW limits were compiled for the northwest portion of the map because the stage of tide for the 1972 photo coverage was 5.1 feet above MLLW.

The MLLW limits for the southeast portion of the map were compiled from the 1965, 1:15,000 scale photographs ratioed to the map scale.

37 - LANDMARKS AND AIDS

There was no landmarks or aids within the mapping limits.

38 - CONTROL FOR FUTURE SURVEYS

None.

39 - JUNCTIONS

Refer to the Data Record Form 76-36B, Item 5. This map junctions with project CM-7211, TP-00264.

40 - HORIZONTAL AND VERTICAL ACCURACY

Refer to Photogrammetric Plot Reports dated November 1965 and September 1972.

46 - COMPARISON WITH EXISTING MAPS

A comparison was made with U.S.G.S. quadrangle Valdez (A-8), Alaska, 1960, 1:63,360 scale.

47 - COMPARISON WITH NAUTICAL CHARTS

A comparison was made with 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,

L. Graves

L. Graves

Cartographic Technician

March 1972

Approved,

Albert C. Rauck, Jr.

Albert C. Rauck, Jr.

Chief, Coastal Mapping Section, AMC

ADDENDUM TO THE COMPILATION REPORT

T-12991

Partial field edit was performed in conjunction with Hydro Survey H-9422. Since this hydro activity was a navigable area survey, it was not concerned with shoreline detail. Primarily, the field edit operation involved the location of alongshore/offshore rocks. Positions for this data were recorded on a 1:20,000 scale photo reduction of the manuscript and were abstracted in the field edit report.

The specific questions asked on the Field Edit Ozalid were not answered. The edit on the northwest shore of Valdez Arm was done with MiniRanger, although sextant fixes were given for comparison. The MiniRanger arcs failed to define a point but scribed open triangles. The sextant fixes were computer plotted and transferred to the original manuscript. No check angles were given for any of the sextant fixes.

FIELD EDIT REPORT

OPR-999 1974

TP-12991

HYDROGRAPHIC SURVEY # H-9422

Field Number DA-20-i-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-12991
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 Valdez (A-8), Alaska, 1960, 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.

Partial 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 and 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 Standard of Map Accuracy.

Submitted by,

Jerry L. Hancock
Jerry L. Hancock
Final Reviewer

Approved for forwarding,

Billy H. Barnes
Billy H. Barnes
Chief, Photogrammetric Section, AMC

Approved,

Robert W. Woodbury
Robert W. Woodbury, Chief, Photogrammetric Section, Rockville

Ronald K. Brewer
Ronald K. Brewer
Chief, Photogrammetry Branch
Rockville

June 11, 1984

GEOGRAPHIC NAMES

FINAL NAME SHEET

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

TP-12991

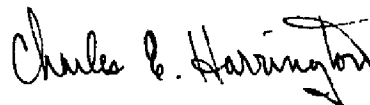
Potato Point

Tongue Point

Valdez Arm

Valdez Narrows

Approved by:



Charles E. Harrington
Chief Geographer
Nautical Charting Division

