

T 12354

T 12354

NOAA FORM 76-35
(6-80)U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

DESCRIPTIVE REPORT

Map No.

T-12354

Edition No.

1

Job No.

PH-6301 PART 2

Map Classification

FINAL MAP

Type of Survey

SHORELINE

LOCALITY

State

ALASKA

General Locality

COOK INLET SOUTHERN PART

Locality

CHISIK ISLAND

19 66 TO 19 78

REGISTERED IN ARCHIVES

DATE

NOAA FORM 76-36A (3-72)		U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.	
DESCRIPTIVE REPORT - DATA RECORD		TYPE OF SURVEY <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> RESURVEY <input type="checkbox"/> REVISED	
PHOTOGRAMMETRIC OFFICE Coastal Mapping Division, Norfolk, VA		SURVEY TP- <u>12354</u> MAP EDITION NO. (1) MAP CLASS <u>Final Map</u> JOB PH- <u>6301 Pt 2</u>	
OFFICER-IN-CHARGE Jeffrey G. Carlen		LAST PRECEDING MAP EDITION TYPE OF SURVEY <input type="checkbox"/> ORIGINAL <input type="checkbox"/> RESURVEY <input type="checkbox"/> REVISED JOB PH- _____ MAP CLASS _____ SURVEY DATES: 19__ TO 19__	

I. INSTRUCTIONS DATED	
1. OFFICE	2. FIELD
Aerotriangulation June 27, 1975 Compilation Oct 9, 1975 " Amend I. May 20, 1976 " Amend II. Jan 28, 1977	

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 type="checkbox"/> MEAN LOWER LOW-WATER <input type="checkbox"/> MEAN SEA LEVEL	OTHER (Specify) _____
3. MAP PROJECTION Transverse Mercator	4. GRID(S) STATE Alaska ZONE 5
5. SCALE 1:20,000	STATE _____ ZONE _____

III. HISTORY OF OFFICE OPERATIONS		
OPERATIONS	NAME	DATE
1. AEROTRIANGULATION BY METHOD: Analytic LANDMARKS AND AIDS BY	S. Solbeck	Sept 1975
2. CONTROL AND BRIDGE POINTS PLOTTED BY METHOD: Coradomat CHECKED BY	S. Solbeck "	Sept 1975 "
3. STEREOSCOPIC INSTRUMENT PLANIMETRY BY COMPILATION CHECKED BY INSTRUMENT: Wild B-8 CONTOURS BY SCALE: 1:20,000 CHECKED BY	C. Blood A. Rauck N.A. N.A.	Feb 1977 " -- --
4. MANUSCRIPT DELINEATION PLANIMETRY BY CHECKED BY METHOD: Smooth Drafted CONTOURS BY CHECKED BY SCALE: 1:20,000 HYDRO SUPPORT DATA BY CHECKED BY	D. Butler Jim Byrd N.A. N.A. D. Butler Jim Byrd	Feb 1977 Mar 1977 -- -- Feb 1977 Mar 1977
5. OFFICE INSPECTION PRIOR TO FIELD EDIT BY	Jim Byrd	Mar 1977
6. APPLICATION OF FIELD EDIT DATA BY	F. Mauldin	Nov 1978
7. COMPILATION SECTION REVIEW BY	F. Marqiotta	Dec 1978
8. FINAL REVIEW BY	C. Blood/J. Byrd	Oct 1986
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH BY	J. Byrd	Jan 1987
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH BY	P. Dempsey	Feb 1987
11. MAP REGISTERED - COASTAL SURVEY SECTION BY		

T-12354
COMPILATION SOURCES

1. COMPILATION PHOTOGRAPHY

CAMERA(S) Wild RC-8"E" and RC-9"M" FL=152.71mm FL=88.20mm		TYPES OF PHOTOGRAPHY LEGEND		TIME REFERENCE	
TIDE STAGE REFERENCE		(C) COLOR (P) PANCHROMATIC (I) INFRARED		ZONE	
<input checked="" type="checkbox"/> PREDICTED TIDES				Alaska	
<input type="checkbox"/> REFERENCE STATION RECORDS				MERIDIAN	
<input type="checkbox"/> TIDE CONTROLLED PHOTOGRAPHY				150th	
				<input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> DAYLIGHT	
NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE	
70E(C) 7181-7183 *	Jul 25, 70	11:18	1:40,000	5.8 ft above MLLW	
70E(C) 7260-7262 *	"	12:45	1:40,000	3.8 "	
70E(C) 7189-7191 *	"	11:27	1:40,000	5.5 "	
70E(C) 7314-7316 **	"	13:41	1:20,000	4.0 "	
70E(C) 7333-7337 **	"	13:50	1:20,000	4.1 "	
70E(C) 7582-7584 **	"	13:13	1:20,000	6.1 "	
70E(C) 7541-7544 **	"	12:50	1:20,000	6.5 "	
70E(C) 7553-7556 **	"	12:58	1:20,000	6.3 "	
70E(C) 7558-7561 **	Jul 26, 70	13:05	1:20,000	6.2	
70M(P) 267-269 ***	Jul 20, 70	-----	1:60,000	-----	

REMARKS

* Compilation photography ** Hydro support photography*** Bridging photography

2. SOURCE OF MEAN HIGH-WATER LINE:

* The mean high water line was compiled from the above compilation photography.

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

None compiled.

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
T-12349	No survey	T-12355	T-12353

REMARKS

NOAA FORM 76-36C
(3-72)U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEYT-12354
HISTORY OF FIELD OPERATIONSI. ☐ FIELD INSPECTION OPERATION Premarking ☐ FIELD EDIT OPERATION

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	N.E. Taylor	June 1967
	E.A.T.	June 1970
2. HORIZONTAL CONTROL	RECOVERED BY L.L. Riggers and E.A.T.	June 1970
	ESTABLISHED BY N.E. Taylor and E.A.T.	June 1967
	PRE-MARKED OR IDENTIFIED BY L.L. Riggers, R.D.O.	" "
3. VERTICAL CONTROL	RECOVERED BY None	
	ESTABLISHED BY None	
	PRE-MARKED OR IDENTIFIED BY None	
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 BY <input checked="" type="checkbox"/> NO INVESTIGATION	
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY None	
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY N.A.	

II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED
Premarked2. VERTICAL CONTROL IDENTIFIED
None

PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION
70M-275	Wood 2, 1967		
70M-267	CHIP, 1970		

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-form 152 and 1-Geodetic Traverse Report, Pathfinder, 1970

NOAA FORM 76-36C
(3-72)U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

HISTORY OF FIELD OPERATIONS

I. ☐ FIELD INSPECTION OPERATION☒ FIELD EDIT OPERATION

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	B. Williams	Jun/Aug 78
2. HORIZONTAL CONTROL	RECOVERED BY J. Quinlan	Jul 1978
	ESTABLISHED BY None	
	PRE-MARKED OR IDENTIFIED BY None	
3. VERTICAL CONTROL	RECOVERED BY None	
	ESTABLISHED BY None	
	PRE-MARKED OR IDENTIFIED BY None	
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 checked="" type="checkbox"/> SPECIFIC NAMES ONLY BY <input type="checkbox"/> NO INVESTIGATION	
	R. Crowell	July 1978
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY R. Crowell	July 1978
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY N.A.	

II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED

None

2. VERTICAL CONTROL IDENTIFIED

None

PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION

3. PHOTO NUMBERS (Clarification of details)

70E(C) 7334, 70E(C) 7559

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)

Field edit ozalid

Field edit report

I. MANUSCRIPT COPIES				
COMPILATION STAGES			DATE MANUSCRIPT FORWARDED	
DATA COMPILED	DATE	REMARKS	MARINE CHARTS	HYDRO SUPPORT
Compilation complete pending field edit	Mar 1977	Class III manuscript	Aug 7, 78	Aug 7, 78
Field edit applied Compilation complete	Dec 1978	Class I Manuscript	Dec 8, 78	Dec 8, 78
Final Review	Oct 86	Final Map	2-11-87	

II. LANDMARKS AND AIDS TO NAVIGATION None

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: None
3. ☐ REPORT TO AERONAUTICAL CHART DIVISION, AERONAUTICAL DATA SECTION. DATE FORWARDED: None

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	

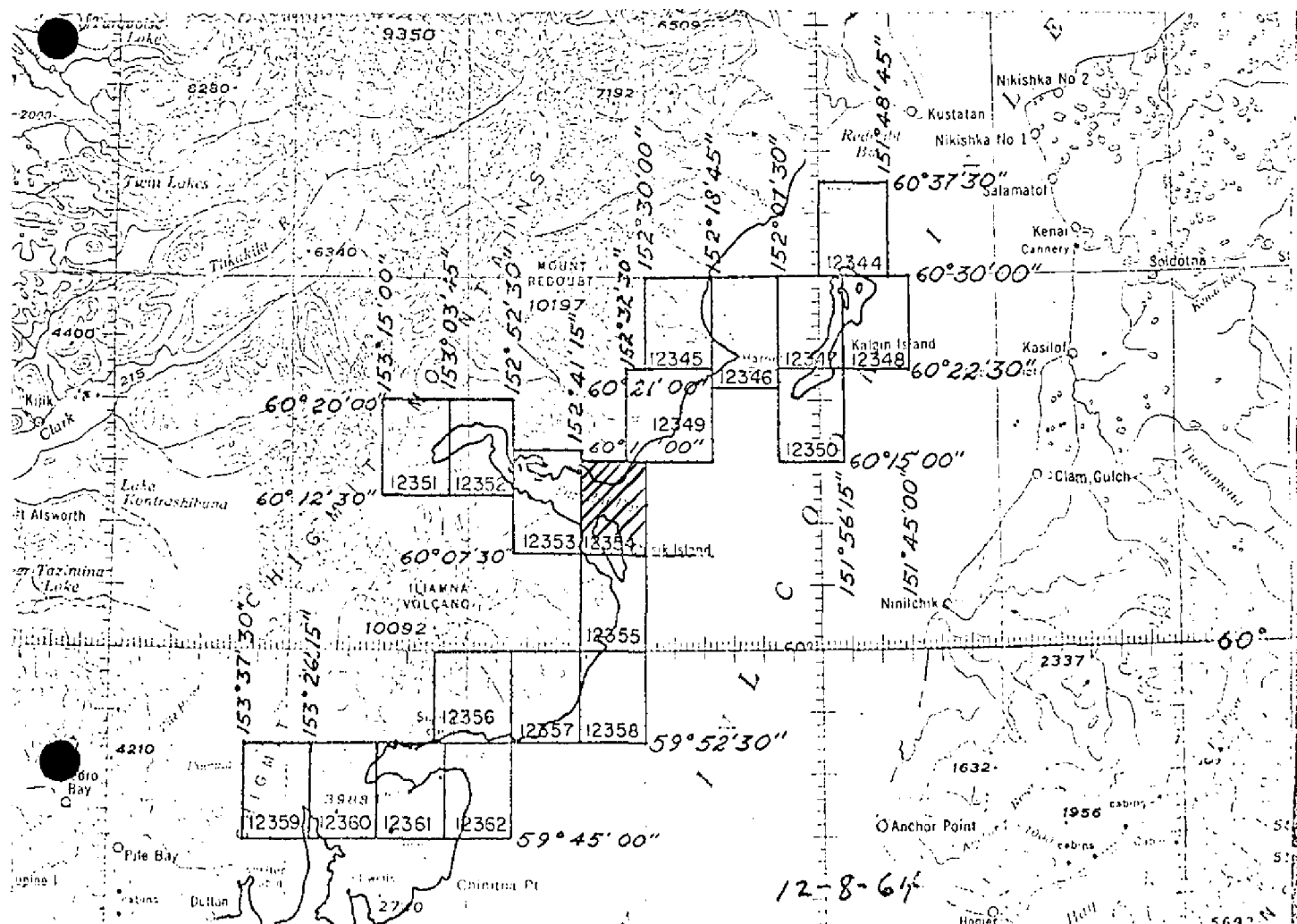
Scale 1:20000
ALASKA

COOK INLET

OFFICIAL MILEAGE FOR COST ACCOUNTS

Sheet No.	Area Sq. Mile	Lin. Mile Shoreline	Sheet No.	Area Sq. Mile	Lin. Mile Shoreline
T-12344	2	4	T-12354	11	22
T-12345	3	6	T-12355	8	16
T-12346	3	6	T-12356	3	6
T-12347	8	16	T-12357	7	14
T-12348	4	8	T-12358	2	4
T-12349	5	10	T-12359	3	6
T-12350	4	9	T-12360	4	7
T-12351	4	9	T-12361	10	19
T-12352	10	21	T-12362	4	8
T-12353	11	22			

Totals - Area 106 sq. mile; Shoreline 213 sq. mile



SUMMARY TO ACCOMPANY
DESCRIPTIVE REPORT

T-12354

This 1:20,000 scale Final shoreline map is one of nineteen 1:20,000 scale maps designated as project PH-6301 Part II, Southern Part, Cook Inlet, Alaska.

The purpose of this map was to provide contemporary shoreline in support of hydrographic operations and to aid in chart revision.

Field work prior to compilation during the 1967 and 1970 field season consisted of recovery and premarking of horizontal control for aerotriangulation.

This map area was photographed in July 1970 with the RC-9 "M" camera at 1:60,000 scale using panchromatic film. The map area was also photographed in July 1970 with the RC-8 "E" camera at 1:20,000 and 1:40,000 scale using color film.

Aerotriangulation was completed at the Washington office in September 1975.

This map was compiled at the Norfolk office in March 1977.

Field edit was acquired for T-12354 during the 1978 field season. Field edit was applied at AMC in December 1978.

Final review was accomplished at the Atlantic Marine Center in October 1986. A Chart Maintenance Print was prepared and forwarded to the Marine Charts Branch.

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

FIELD INSPECTION

T-12354

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

Photogrammetric Plot Report
Cook Inlet, Alaska
PH-6301

21. Area Covered

The area covered by this report is the western shoreline along Cook Inlet, Alaska, from Chinita Bay to Tuxedni Bay. This area is covered by 13 1:20,000 sheets; T-12349, T-12351-12362.

22. Method

Three strips of 1:60,000 scale black-and-white panchromatic photography were bridged by analytic aerotriangulation methods.

Common points were located on the bridging photography and the 1:20,000 color photography being used for ratio purposes. In addition, common points were located on the bridging and 1:30,000 photography being used for compilation. Tie points were used on all three strips to insure an adequate junction of all photography during the strip adjustment. Ratio prints were ordered. The T-sheet manuscripts were plotted on the Coradomat.

23. Adequacy of Control

Control checked within map accuracy standards, but due to the fact that this area is within the 1964 earthquake zone, some local stations could have moved.

Station F00, 1970, could not be held in the strip adjustment and this is believed to be the cause.

On September 3, 1975, Geodesy informed this office that not enough data was available to make any significant changes on the horizontal control in this area.

24. Supplemental Data

USGS Quadrangles were used to provide vertical control for the adjustment.

25. Photography

The coverage, overlap, and quality of the photography was adequate for the job.

Submitted by.

Stephen H. Solbeck
Stephen H. Solbeck

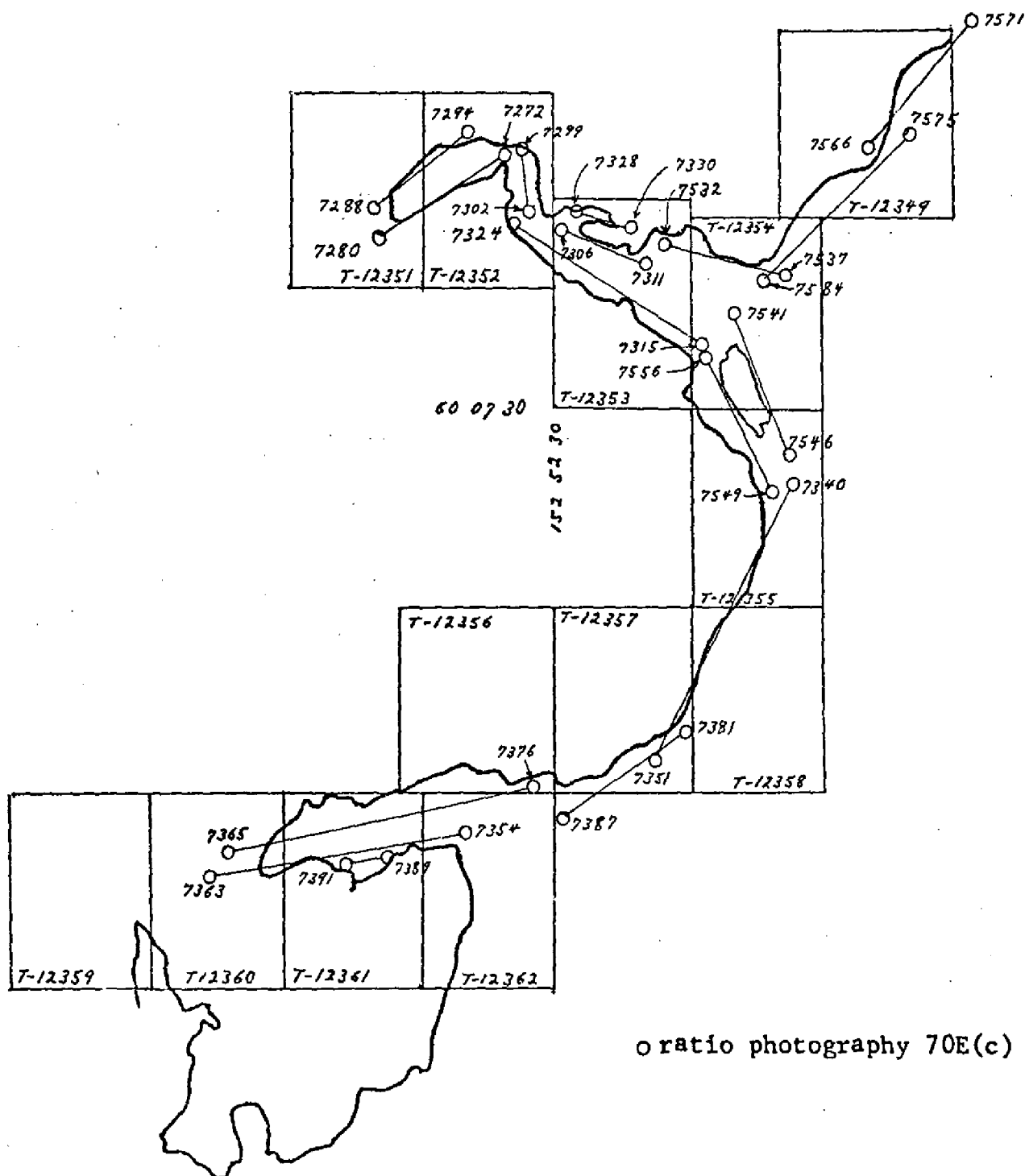
Approved and forwarded:

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

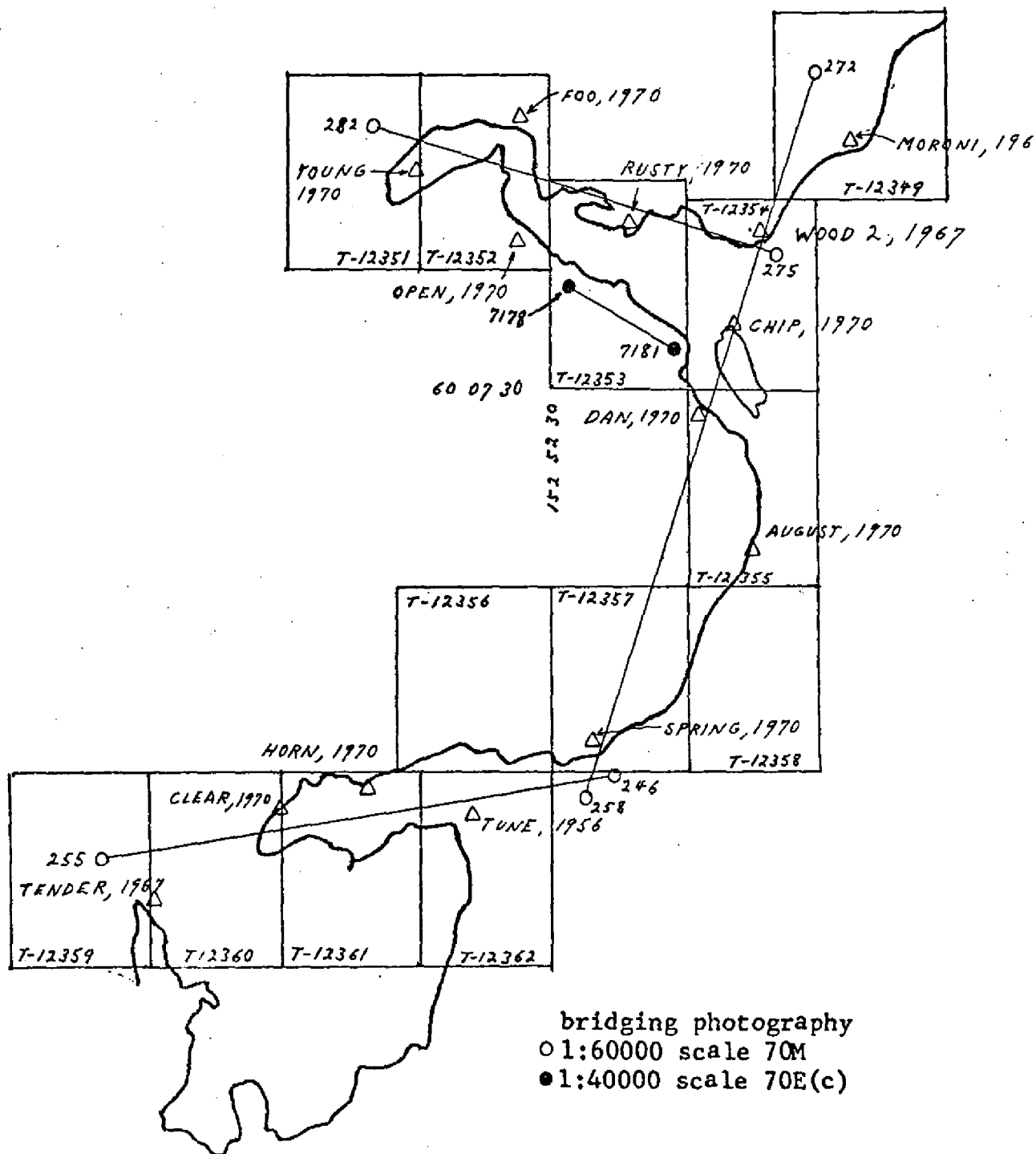
Chief, Aerotriangulation Section

29 SEP 75

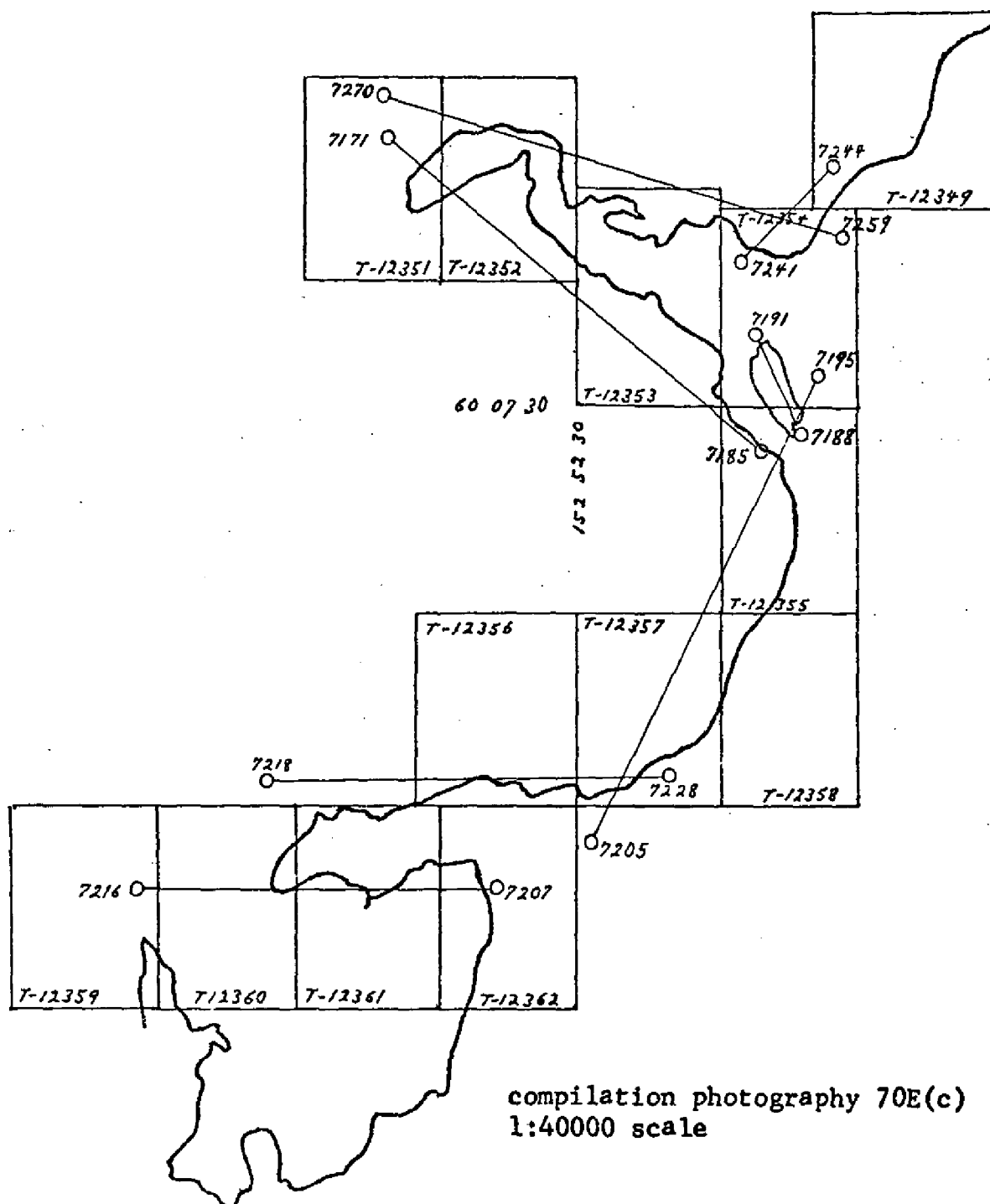
AEROTRIANGULATION SKETCH
 COOK INLET ALASKA
 PART-2
 PH-6301
 September, 1975



AEROTRIANGULATION SKETCH
 COOK INLET ALASKA
 PART-2
 PH-6301
 September, 1975



AEROTRIANGULATION SKETCH
 COOK INLET ALASKA
 PART-2
 PH-6301
 September, 1975



COMPILATION REPORT

T-12354

31 - DELINEATION

Delineation was accomplished by using the Wild B-8 stereoplotter with 1:40,000 scale color photography. Quality and coverage of photography was adequate.

32 - CONTROL

See the attached Photogrammetric Plot Report, dated September 29, 1975.

33 - SUPPLEMENTAL DATA

None

34 - CONTOURS AND DRAINAGE

Contours are not applicable to the project. Drainage was delineated by using the Wild B-8 stereoplotter and by office interpretation of the photographs.

35 - SHORELINE AND ALONGSHORE DETAILS

Alongshore details were delineated using the Wild B-8 stereoplotter and by office interpretation of the photographs.

The mean high water line was delineated from the photographs.

36 - OFFSHORE DETAILS

No unusual problems were encountered.

37 - LANDMARKS AND AIDS

Within the limits of this manuscript, there were no landmarks and no aids to navigation.

38 - CONTROL FOR FUTURE SURVEYS

None

T-12354

39 - JUNCTIONS

See the attached Form 76-36B, item #5 of the Descriptive Report concerning junctions.

40 - HORIZONTAL AND VERTICAL ACCURACY

Refer to Photogrammetric Plot Report, dated September 29, 1975.

46 - COMPARISON WITH EXISTING MAPS

A comparison was made with the U. S. Geological Survey Quadrangle: Kenai (A-7), ALASKA, scale 1:63,360, dated 1958.
Kenai (A-8), ALAKSA, scale 1:63,360, dated 1958.

47 - COMPARISON WITH NAUTICAL CHARTS

A comparison has been made with the following National Ocean Survey chart: No. 16640, scale 1:200,000 dated May 25, 1974, 13th ed.

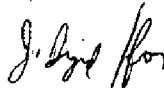
ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY

None.

ITEMS TO BE CARRIED FORWARD

None.

Submitted by:

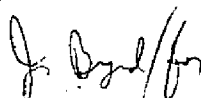


David Butler

Cartographic Technician

Date: February 28, 1977

Approved:



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

Feb. 6, 1987

GEOGRAPHIC NAMES

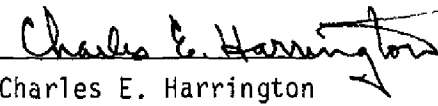
FINAL NAME SHEET

PH-6301 (Cook Inlet, Alaska-Part 2)

T-12354

Chisik Island
Cook Inlet
Crescent River
Duck Island
Fossil Point
Tuxedni Bay
Tuxedni Channel
Squarehead Cove

Prepared by:


Charles E. Harrington
Staff Geographer

Field Edit Report
OPR-P114-FA-78
Redoubt Point, Tuxedni Bay

GENERAL

This report covers field edit work done on topographic manuscripts T-12349 and T-12351 through T-12355. Work was performed by LTjg Crowell, ENS Finke and ENS Roberts during the months of June, July and August 1978.

RECOMMENDATIONS

It could be very helpful if color photographs were supplied to parties assigned to field work in addition to black and white photographs. Many features which are obvious in the field do not show up at all on black and white photographs.

Submitted by



Robert B Crowell
LTjg, NOAA

Approved by



Bruce I Williams
Commanding Officer
NOAA Ship Fairweather

T-12354
Tuxedni Bay

DESCRIPTION

Shoreline characteristics in this area vary. The area around the Crescent River is low. Most other areas are backed by bluffs and steep hillsides. Beach areas are generally gravel, some rocky. Beaches on the east shore of Chisik Island are generally rocky and rock ledges are common. Mud flats are extensive. The whole of Tuxedni Bay is fairly shallow. Tuxedni Channel is the only area navigable by vessels of any size. Local information indicates that winter ice can cause movement of offshore rocks, though this occurs over a period of years.

METHOD

Field edit was done from skiffs and on foot. Location of offshore rocks was done at negative tides. Often, only the outer rocks of groups of rocks were located. Rocks located from the photographs were verified both by visual identification and by obtaining field positions on some.

Shoreline and other features were verified from close offshore or ashore at or near high tide to avoid crossing tidal flats. The original and photographs were examined in the field.

Control for fixes was primarily range-azimuth, using Wild T-1 theodolites and Motorola Mini-ranger equipment. Some fixes were controlled by sextant angles using both established stations and physical features. Control for two fixes was by range-range; Teledyne Hastings Raydist equipment was used to locate the hydrographic launch and Mini-ranger was used to locate the skiff from the launch. For most work south of Duck Island, fixes were controlled by sextant angles to physical features and distances were measured with a Ranging model 1200 optical rangefinder. It was considered impractical to implement more control in the time available. Information on stations used and equipment used is appended.

ADEQUACY AND COMPLETENESS OF COMPILATION

Office and field compilation of the manuscript are adequate for the purpose of nautical charting. Field work on the manuscript is complete.

MANUSCRIPT ACCURACY

The positions of stations FOSSIL PT 1970, WOOD 2 1967 and CHIP 1970, in relation to shoreline features, agree well with the manuscript. Occasional check fixes on offshore rocks resulted in good agreement.

RECOMMENDATIONS

All rocks located in 1911 (survey H-3319) should be deleted. It is

evident that they have been moved by the ice or poorly located. None are shown on the manuscript but they are on NOAA chart 16660.

REVIEW REPORT T-12354
SHORELINE

61. GENERAL STATEMENT

See Summary included with this Descriptive Report.

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS:

Not applicable.

63. COMPARISON WITH MAPS OF OTHER AGENCIES

Not applicable.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS

A comparison was made with the following Hydrographic Survey:

H-9771	1:20,000 scale	dated June 30, 1980
H-9773	1:20,000 scale	dated September 15, 1980

There are no major conflicts.

65. COMPARISON WITH NAUTICAL CHARTS:

A comparison was made with NOS chart 16661, scale 1:100,000, dated July 27, 1985.

There were no conflicts.

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

J. Byrd, Jr.
James L. Byrd, Jr.
Final Reviewer

Approved for forwarding

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

Approved

Larry O. Roberson, Jr.
Chief, Photogrammetric Production Sect.

Alf. Bryson
Chief, Photogrammetry Branch

