ORIGINAL

12224

NOAA FORM 76-35

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

DESCRIPTIVE REPORT

Type of Survey SHORELINE

Job No. PH-6206 *Map No.* T-12224

Classification No. FIELD EDITED *Edition No.*

LOCALITY

State ALASKA

General Locality KEKU STRAIT

Locality TROUBLE ISLAND

19 61 TO 19 70

Alfred C. Holmes, Director, AMC

REGISTRY IN ARCHIVES

DATE

☆ U.S. GOVERNMENT PRINTING OFFICE: 1972-760-693

12224

MAP NOT INSPECTED IN QUALITY CONTROL PRIOR

TO REGISTRATION

FORM C&GS-181a
(3-66)

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

1

DESCRIPTIVE REPORT - DATA RECORD

T - 12224

OJECT NO. (II):

PH-6206

FIELD OFFICE (II):	CHIEF OF PARTY
NONE	
PHOTOGRAMMETRIC OFFICE (III):	OFFICER-IN-CHARGE
ATLANTIC MARINE CENTER, Norfolk, VA	Alfred C. Holmes, Director

INSTRUCTIONS DATED (II) (III):

Office Supplement III, December 19, 1967

Office Supplement IV, April 14, 1970

METHOD OF COMPILATION (III):

Wild B-8 Stereoplotter and graphic

MANUSCRIPT SCALE (III):	STEREOSCOPIC PLOTTING INSTRUMENT SCALE (III):
1:10,000	1:20,000 Pantographed to 1:10,000
TE RECEIVED IN WASHINGTON OFFICE (IV):	DATE REPORTED TO NAUTICAL CHART BRANCH (IV):

APPLIED TO CHART NO.	DATE:	DATE REGISTERED (IV):
		Sept. 4, 1975

GEOGRAPHIC DATUM (III):	VERTICAL DATUM (III):
NA 1927	High Water MEAN ~~SEA LEVEL~~ EXCEPT AS FOLLOWS: *Elevations shown as (25) refer to mean high water* *Elevations shown as (5) refer to sounding datum* *i.e., ~~MEAN LOWER~~ mean lower low water*

REFERENCE STATION (III):

TROUBLE, 1927

LAT.:	LONG.:	
56°27'50.426"(1559.7M)	133°41'03.454"(59.1M)	[X] ADJUSTED [ ] UNADJUSTED

PLANE COORDINATES (IV):	STATE	ZONE
Y = 1,691,396.39 ft. X = 2,682,079.62 ft.	Alaska	1

ROMAN NUMERALS INDICATE WHETHER THE ITEM IS TO BE ENTERED BY (II) FIELD PARTY, (III) PHOTOGRAMMETRIC OFFICE, OR (IV) WASHINGTON OFFICE.

WHEN ENTERING NAMES OF PERSONNEL ON THIS RECORD GIVE THE SURNAME AND INITIALS, NOT INITIALS ONLY.

USCOMM-DC 36393A-P66

FORM C&GS-181b
(3-66)

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT - DATA RECORD

T-12224

FIELD INSPECTION BY (II): None	DATE:
MEAN HIGH WATER LOCATION (III) (STATE DATE AND METHOD OF LOCATION): Air Photo Compilation Date of Photography: Aug. 5, 1969	
PROJECTION AND GRIDS RULED BY (IV): J. Dempsey	DATE: April 10, 1970
PROJECTION AND GRIDS CHECKED BY (IV): E. Homick	DATE: April 10, 1970
CONTROL PLOTTED BY (III): Coradomat	DATE: June 4, 1970
CONTROL CHECKED BY (III): Coradomat	DATE: June 4, 1970
RADIAL PLOT OR STEREOSCOPIC CONTROL EXTENSION BY (III): Robert E. Fisher	DATE: Feb. 19, 1970
STEREOSCOPIC INSTRUMENT COMPILATION (III): PLANIMETRY L.O. Neterer, Jr. Reviewed By: A. Shands	DATE June 24, 1970 June 24, 1970
CONTOURS Inapplicable	DATE
MANUSCRIPT DELINEATED BY (III): B. Wilson	DATE: July 16, 1970
SCRIBING BY (III): F. Margiotta	DATE: May 8, 1972
PHOTOGRAMMETRIC OFFICE REVIEW BY (III): L.L. Graves	DATE: July 24, 1970
REMARKS:	

USCOMM-DC 36393-P66

FORM C&GS-181c
(3-66)

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT - DATA RECORD

T-12224

CAMERA (KIND OR SOURCE) (III):

Wild RC-8 "E" & W

PHOTOGRAPHS (III)

NUMBER	DATE	TIME	SCALE	STAGE OF TIDE
61W-9523 thru 9525	July 16, 61	10:25	1:20,000	0.2 ft. below MLLW
61W-9532 thru 9536	July 16, 61	10:32	1:20,000	0.0 ft. at MLLW
* 69E(c)-954 thru 956	Aug. 5, 69	12:02	1:40,000	4.5 ft. above MLLW

Predicted TIDE (III) Diurnal

	RATIO OF RANGES	MEAN RANGE	[redacted] RANGE
REFERENCE STATION: Ketchikan, Alaska		13.0	15.4
SUBORDINATE STATION: Monte Carlo Island		10.3	12.5
SUBORDINATE STATION:			

Atlantic Marine Center C.H. Bishop — DATE: April 1973

PROOF EDIT BY (IV): — DATE:

NUMBER OF TRIANGULATION STATIONS SEARCHED FOR (II): 1	RECOVERED: 1	IDENTIFIED: None	
NUMBER OF BM(S) SEARCHED FOR (II): None	RECOVERED: None	IDENTIFIED None	
NUMBER OF RECOVERABLE PHOTO STATIONS ESTABLISHED (III):	None		
NUMBER OF TEMPORARY PHOTO HYDRO STATIONS ESTABLISHED (III):	None		

REMARKS:

*These centers are on T-12225

T-12224

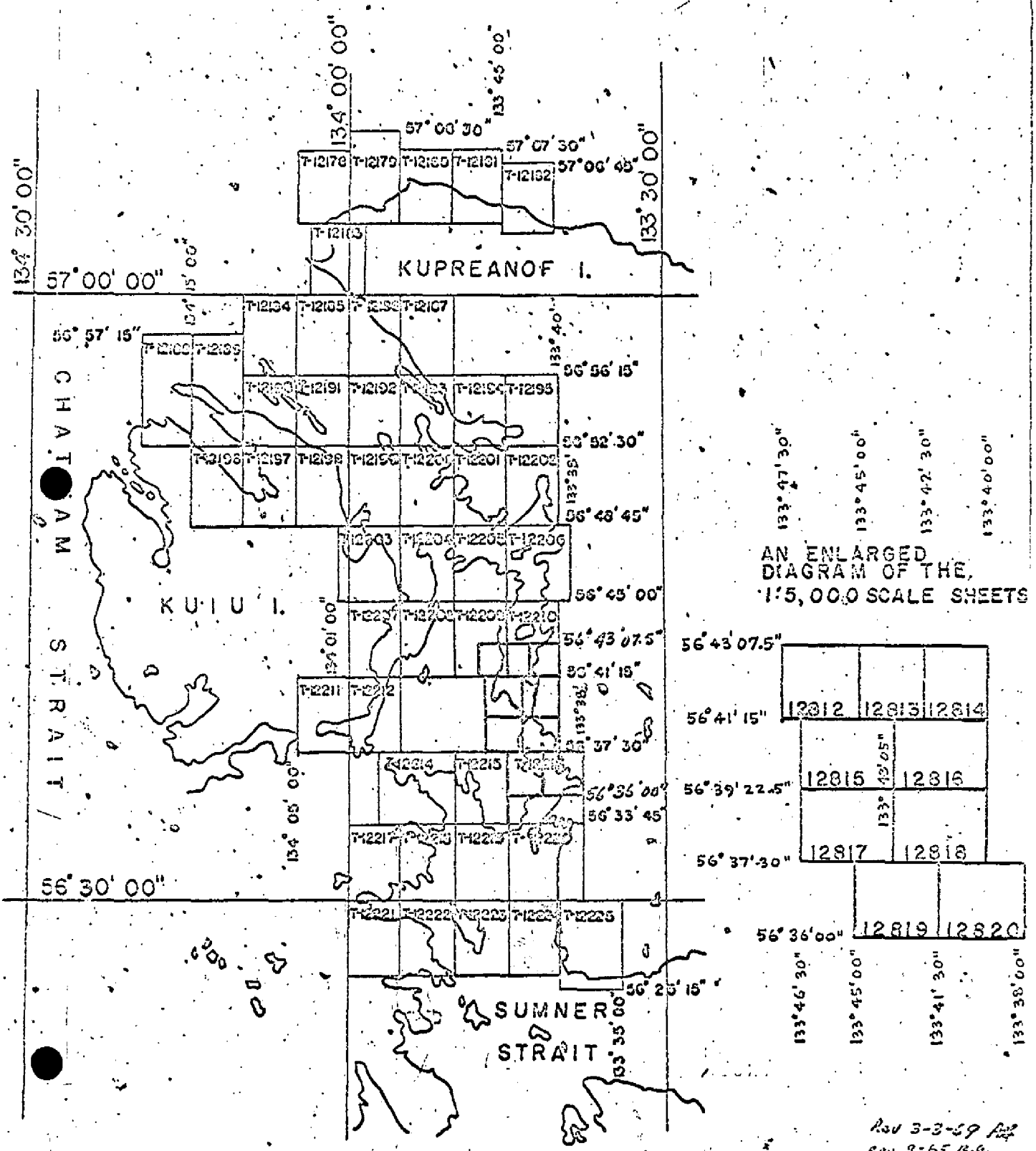
COMPILATION RECORD	COMPLETION DATE	REMARKS
Compilation Complete Pending Field Edit	July 16, 1970	Superseded
Field Edit Applied	July 1971	Superseded
Final Review	April 1973	

SHORELINE MAPPING PROJECT

Ph-6206

KEKU STRAITS, ALASKA

SCALE 1:10,000



AN ENLARGED DIAGRAM OF THE 1:5,000 SCALE SHEETS

Rev 3-3-69 RG
Rev. 9-65 R.G.
Revised 1-6-65

SUMMARY TO ACCOMPANY

DESCRIPTIVE REPORT T-12224

This 1:10,000 scale shoreline manuscript is one of 53 maps that comprise Project PH-6206, Keku Strait, Alaska. The project diagram indicates the location of T-12224 in the project.

There was no field work prior to compilation.

Compilation was by Wild B-8 plotter, using color photography taken in August, 1969. Low-water photographs taken in 1961 were used to compile graphically rocks, reefs, and kelp limits. Control was based on a stereoplanigraph bridge. Stable transparent copies of the map manuscript, ozalids, and specially prepared photographs were furnished for transfer of shoreline to the boat sheet, location of photo-hydro signals, and field edit.

Field edit was done in October, 1970 by the Ship DAVIDSON. After application of field edit data to the map, it was scribed and reproduced on cronaflex.

Final review was done at the Atlantic Marine Center in April, 1973.

The compilation manuscript was a vinylite sheet 3 minutes 45 seconds in latitude by 5 minutes in longitude.

A cronaflex copy of the final reviewed manuscript and a negative have been forwarded for record and registry.

FIELD INSPECTION REPORT

PH-6206

T-12224

There was no field inspection prior to compilation.

Aerotriangulation Report
PH-6206
Keku Strait, Alaska

February 19, 1970

21. Area Covered

This project covers areas in the vicinity of Keku Strait - Kuiu Island, Alaska. T-sheets covered are as follows:

T-12203 thru T-12225
all T-sheets are at 1:10,000 scale

22. Method

Five strips were bridged to provide horizontal positions of pass points needed for compilation. Strip #12 was bridged in two parts, 12a and 12b, because of open water. Strip #14 was not bridged due to satisfactory pass point coverage from Strips 13, 15 and 16.

Strip #11 was bridged on the C-5. Strips 12a, 12b, 13, 15 and 16 were bridged on the C-8. All were adjusted by electronic computer.

Strip #11 used seven control points and a tie point in a third degree adjustment.

Strip #12a used a first degree adjustment with two control points. One tie point was available for a check.

Strip #12b used a third degree adjustment with five control points.

Strip #13 used three control points in a second degree adjustment.

Strips 15 and 16 used four control points in third degree adjustments.

All pass points, except one in Strip #16, were drilled.

Corresponding tie point values were averaged.

This project was tied through common control stations with the 1966 project in this area.

23. Adequacy of Control

Horizontal control was adequate in all strips. However station "SPIT 1927" and its subpoint appearing in both Strip #11 of this project and in Strip #1 of the adjacent "Sumner Strait" project had residual errors on the order of 15 feet in X. These errors were similar in direction and magnitude for both points and in both strips. The reason for not obtaining a better check with these points is not known.

Many control stations in this project were recovered in 1965 and pricked on 1964, 1:20,000 scale photography. The 1970 bridge was run with new 1:40,000 scale photography, therefore, much of the old control was not visible in these bridges. All 1969 identified control used in this project was targeted.

The RMS errors in fit to control for the 1969 identified control, (except "SPIT 1927") and including the 1965 identified control "ALL 1927" and "CEN 1927" were 2.5 feet in X and 1.2 feet in Y. The maximum errors were 6.8 feet in X and 3.3 feet in Y.

24. Supplemental Data

U. S. Geological Survey quadrangles were used to provide elevations for vertical adjustment of the bridges.

25. Photography

Photography was satisfactory with regards to coverage, overlap and definition.

Submitted by,

Robert E. Fisher
Cartographer (Photo)

Approved and forwarded,

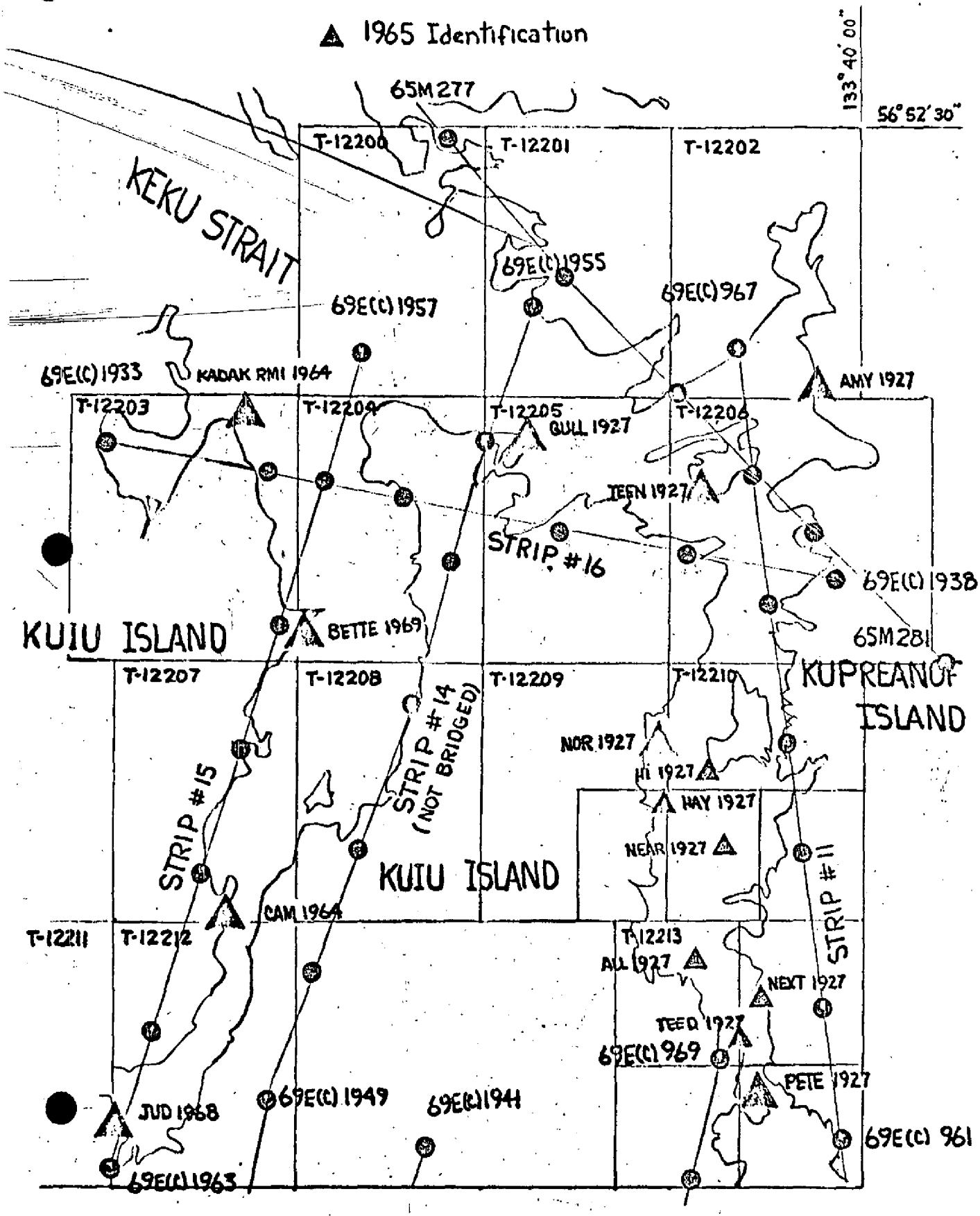
Henry P. Eichert
Chief, Aerotriangulation
Section

KEKU STRAIT ALASKA

PH 6206 FEB 1970

▲ 1969 Identification

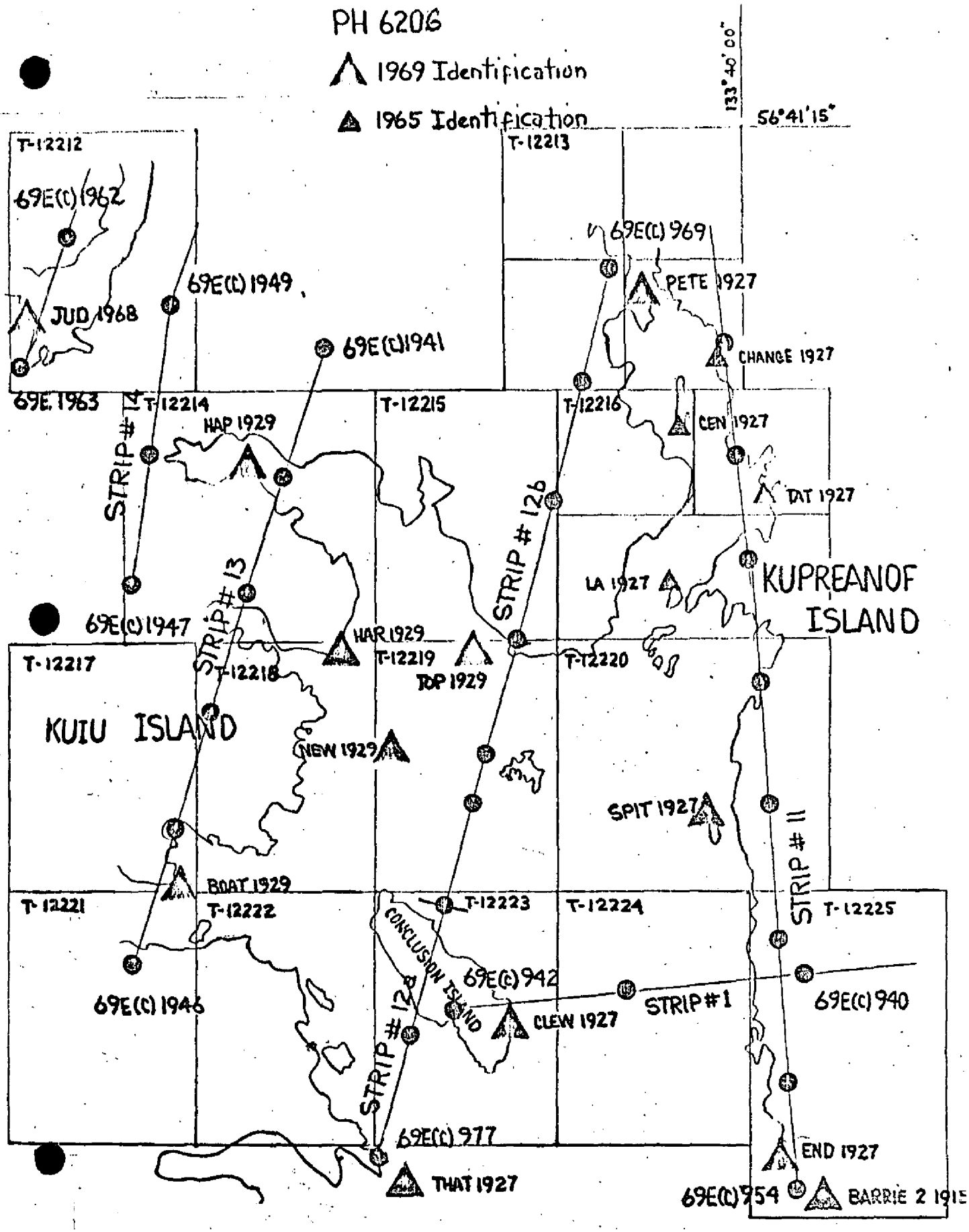
▲ 1965 Identification



KEKU STRAIT ALASKA
PH 6206

1969 Identification

1965 Identification



FORM C&GS-164
(4-68)
USCOMM-DC
50318-P68

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT CONTROL RECORD

MAP T- 12224 PROJECT NO. PH-6206 SCALE OF MAP 1:10,000 SCALE FACTOR None

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR Y COORDINATE LONGITUDE OR X COORDINATE	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS *(1 Ft. = 3048006 meter)* FORWARD	(BACK)
TROUBLE 1927	Vol. 2, pg. 363		56° 27' 50.426"	1559.7	(296.1)
			133° 41' 03.454"	59.1	(968.33)

COMPUTED BY B. Wilson DATE June 27, 1970 CHECKED BY C.H. Bishop DATE 6/27/70

2

COMPILATION REPORT

T-12224

31. DELINEATION

The Wild B-8 plotter was used, supplemented with graphic compilation of foreshore detail from photos at mean lower low water.

There was no field inspection prior to compilation.

Loss of definition and defects, causing confusion with photographic detail resulted from the many times enlargement from the 1:40,000 scale negatives.

There was no photo coverage west of 133°43'30".

32. CONTROL

See Aerotriangulation Report, dated Feb. 19, 1970.

33. SUPPLEMENTAL DATA

None

34. CONTOURS AND DRAINAGE

Contours are inapplicable.

There is no drainage within the limits of this manuscript.

35. SHORELINE AND ALONGSHORE DETAILS

The mean high water line was delineated from office interpretation of photographs taken in 1969. The foreshore details, mean lower low water line, and rocks awash were compiled graphically from 1961 photography taken at low water. There was more penetration of the water on the 1969 photos, the higher tide and "fuzziness", not withstanding, than on the 1961 photos, so both were considered in delineation of the foul limits.

36. OFFSHORE DETAILS

The foul area south of the neat line was not covered by the 1961 photos.

Numerous rocks, small islands foul, reef and ledge areas were delineated as under item 35.

37. LANDMARKS AND AIDS

None

38. CONTROL FOR FUTURE SURVEYS

None

39. JUNCTIONS

Satisfactory junctions were made with T-12223 to the west, T-12220 to the north, and T-12225 to the east. There is no contemporary survey to the south.

40. HORIZONTAL AND VERTICAL ACCURACY

No statement.

41. COMPARISON WITH PREVIOUS BUREAU SURVEYS

A comparison was made with previous bureau survey Reg. No. 4330, South End of Keku Strait, Date Sept 1 - Oct 15, 1927, scale 1:20,000.

42 through 45. Are inapplicable.

46. COMPARISON WITH EXISTING MAPS

Comparison was made with USGS Quadrangle PETERSBURG (B-6), ALASKA, scale 1:63,360, dated 1948.

47. COMPARISON WITH NAUTICAL CHARTS

Comparison was made with Chart 8201, scale 1:217,828, 15th Edition, Nov. 15, 1969 (corrected thru Notice to Mariners 46/69).

ITEMS TO BE APPLIED TO CHARTS IMMEDIATELY

None

ITEMS TO BE CARRIED FORWARD

None

Respectfully submitted:

Charles H Bishop

for B. Wilson
Cartographic Technician
July 16, 1970

Approved for forwarding:

Melvin J. Umbach, CDR, NOAA
Chief, Coastal Mapping Division, AMC

Approved:

Alfred C. Holmes
RADM, NOAA
Director, Atlantic Marine Center

August 28, 1972

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-6206

T-12224

Keku Strait

Kupreanof Island

Meadow Island

Trouble Island

Approved by:

A. J. Wraight

A. Joseph Wraight
Chief Geographer

Prepared by:

F. W. Pickett (by A.J.W.)

Frank W. Pickett
Cartographic Technician

49. NOTES FOR THE HYDROGRAPHER

None

FORM C&GS-1002
(9-66)

U.S. DEPARTMENT OF COMMERCE
ESSA
COAST AND GEODETIC SURVEY

PHOTOGRAMMETRIC OFFICE REVIEW

T- 12224

1. PROJECTION AND GRIDS	2. TITLE	3. MANUSCRIPT NUMBERS	4. MANUSCRIPT SIZE
LLG	LLG	LLG	LLG

CONTROL STATIONS

5. HORIZONTAL CONTROL STATIONS OF THIRD-ORDER OR HIGHER ACCURACY	6. RECOVERABLE HORIZONTAL STATIONS OF LESS THAN THIRD-ORDER ACCURACY *(Topographic stations)*	7. PHOTO HYDRO STATIONS
LLG	XX	XX

8. BENCH MARKS	9. PLOTTING OF SEXTANT FIXES	10. PHOTOGRAMMETRIC PLOT REPORT	11. DETAIL POINTS
XX	XX	RSC	LLG

ALONGSHORE AREAS *(Nautical Chart Data)*

12. SHORELINE	13. LOW-WATER LINE	14. ROCKS, SHOALS, ETC.	15. BRIDGES
LLG	LLG	LLG	XX
16. AIDS TO NAVIGATION	**17. LANDMARKS**	**18. OTHER ALONGSHORE PHYSICAL FEATURES**	**19. OTHER ALONGSHORE CULTURAL FEATURES**
XX	XX	LLG	XX

PHYSICAL FEATURES

20. WATER FEATURES	21. NATURAL GROUND COVER	22. PLANETABLE CONTOURS
XX	XX	XX

23. STEREOSCOPIC INSTRUMENT CONTOURS	24. CONTOURS IN GENERAL	25. SPOT ELEVATIONS	26. OTHER PHYSICAL FEATURES
XX	XX	XX	LLG

CULTURAL FEATURES

27. ROADS	28. BUILDINGS	29. RAILROADS	30. OTHER CULTURAL FEATURES
XX	XX	XX	XX

BOUNDARIES

31. BOUNDARY LINES	32. PUBLIC LAND LINES
XX	XX

MISCELLANEOUS

33. GEOGRAPHIC NAMES	34. JUNCTIONS	35. LEGIBILITY OF THE MANUSCRIPT
LLG	LLG	LLG

36. DISCREPANCY OVERLAY	37. DESCRIPTIVE REPORT	38. FIELD INSPECTION PHOTOGRAPHS	39. FORMS
LLG	LLG	XX	LLG

40. REVIEWER	SUPERVISOR, REVIEW SECTION OR UNIT
L.L. Graves	Albert C. Rauck, Jr.

41. REMARKS *(See attached sheet)*

FIELD COMPLETION ADDITIONS AND CORRECTIONS TO THE MANUSCRIPT

42. Additions and corrections furnished by the field completion survey have been applied to the manuscript. The manuscript is now complete except as noted under item 43.

COMPILER	SUPERVISOR
Field Edit: B. Wilson July 22, 1971	Albert C. Rauck, Jr.

43. REMARKS

Field Edit Applied From: Field Edit Ozalid and Photo 69-E-(c)-955

FIELD EDIT REPORT
Keku Strait
Southeast Alaska
OPR-448

June - October 1970

INTRODUCTION

Field edit reports are attached for the following maps:

T-12205	(TP-00205)
T-12206	(TP-00206)
T-12209	(TP-00209)
T-12210	
T-12216	
T-12220	
T-12224	
T-12225	

Field photographs and copies of the field edit ozalids were taken into the field. The mean high water line was verified by visual inspection of the shoreline and ozalids in the field. Isolated rocks, high points of ledges, ledge limits, and some shoreline were located by three-point fixes with check angles. Fixes were plotted on boat sheets:

DA-10-4-70
DA-10-5-70
DA-10-6-70
DA-10-7-70

and then transferred to the T-sheets and ozalids for comparison.

Notes have been made in red on the field photographs and have been cross referenced on the Field Edit Ozalids by photograph number. All times are based on 105° West meridian. Individual reports by manuscripts are attached.

TIDE NOTES

The following tide stations were used for hydrography in the Keku Strait area:

Pup Island
High Island
Eagle Island
Monte Carlo Island

Manuscripts T-12201 and T-12202 were inspected. Since no field edit was requested by the compilers the inspection was to check the manuscript in general. The manuscripts agreed quite well with the field inspection.

FIELD EDIT REPORT
MAP T-12224
Southeast Alaska
Keku Strait - Point Barrie

The field edit was performed by LCdr. F.T. Smith from a small boat.

METHOD

The field edit ozalids and field photographs were taken into the field. All verification was done by visual observations. The specific items in question were visited for verification. Field work was performed the first week in October 1970. The 69 E photographs were difficult to use in the field because of the large size and poor resolution. Reference was made to PA-10-65 for the location of some offshore reefs, rocks and foul areas. Notes were made on the ozalid concerning the field edit information and cross referenced to the photograph 69 E 955.

ADEQUACY OF COMPILATION

The compilation of the map appears to be adequate.

RECOMMENDATIONS

It is recommended that the manuscript be revised in accordance with the notes on the ozalid and photographs and that the map be accepted as an advance manuscript.

Respectfully submitted,

F.T. Smith
LCdr. NOAA

APPROVAL SHEET FOR FIELD EDIT

The field edit of the following manuscripts was accomplished under my supervision:

T-12205.....TP-00205
T-12206.....TP-00206
T-12209.....TP-00207
T-12210
T-12216
T-12220
T-12224
T-12225

Inspection of the work was made.

Ray E. Moses
CDR. NOAA
Commanding Officer
NOAA Ship DAVIDSON

REVIEW REPORT T-12224

SHORELINE

April 27, 1973

61. GENERAL STATEMENT

See Summary which is page 6 of this Descriptive Report.

It was very difficult to identify rocks and small reefs in several large kelp areas on this map because of floating debris lodged in the kelp. The fact that numerous rocks awash and small reefs were not verified by the field editor or shown on the hydrographic surveys, and a study of all the photographs covering the map area, led to the decision that the images on the photographs which were previously mapped as rocks or reefs were actually kelp. Therefore, these features were removed from Map T-12224.

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS

A comparison was made with Survey No. 4330, Scale 1:20,000, dated Sept. 1 - Oct. 15, 1927. Differences between this survey and T-12224 were shown in blue on the comparison print.

63. COMPARISON WITH MAPS OF OTHER AGENCIES

A visual comparison was made with U.S.G.S. Quadrangle PETERSBURG (B-6), ALASKA, scale 1:63,360, dated 1948. No significant differences were noted.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS

North of Lat. 56°27'15" a comparison was made with a copy of the boat sheet for H-9160 (DA-10-6-70), scale 1:10,000, dated 1970, and south of Lat. 56°27'15", with a verified copy of the smooth sheet for H-8861 (PA-10-1-65), scale 1:10,000, dated 1965. Several rocks and small reefs in kelp areas not mapped on the hydrographic surveys were removed from T-12224. See Item 61. Differences between the hydrographic surveys and T-12224 were shown in purple on the comparison print.

65. COMPARISON WITH NAUTICAL CHARTS

A visual comparison was made with Chart 8201, scale 1:217,828, 16th edition, dated 7 November 1970. The scale was too small for an adequate comparison. No significant differences were noted.

66. ADEQUACY OF RESULTS AND FUTURE SURVEYS

This survey complies with job instructions and meets the requirements of the National Standards for Map Accuracy.

Reviewed by:

Charles H. Bishop

Charles H. Bishop
Cartographer

Approved for forwarding:

Melvin J. Umbach, CDR, NOAA
Chief, Coastal Mapping Division, AMC

Approved:

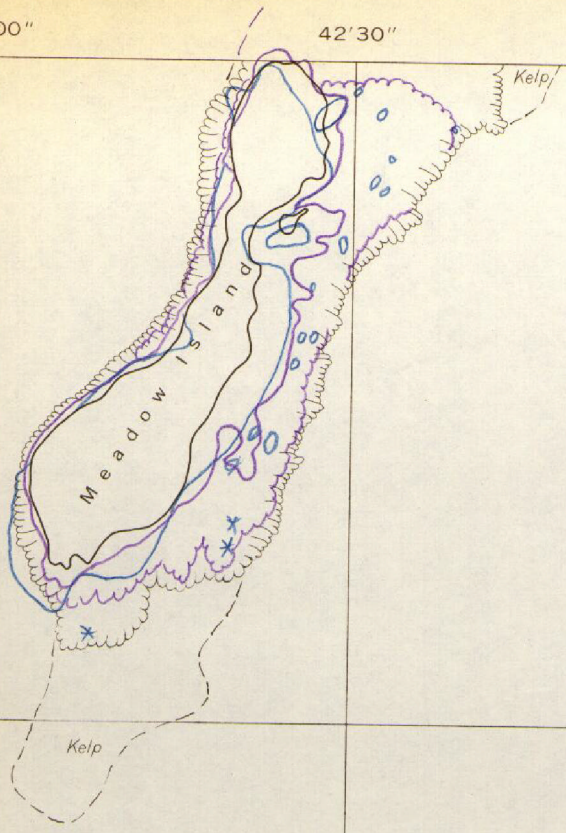
Alfred C. Holmes
RADM, NOAA
Director, Atlantic Marine Center

Approved:

Chief, Photogrammetric Branch Chief, Coastal Mapping Division

675,000 FT | 43'00" | 42'30" | 133° 42'00" x = 2,680,000 FT. | 41'30"

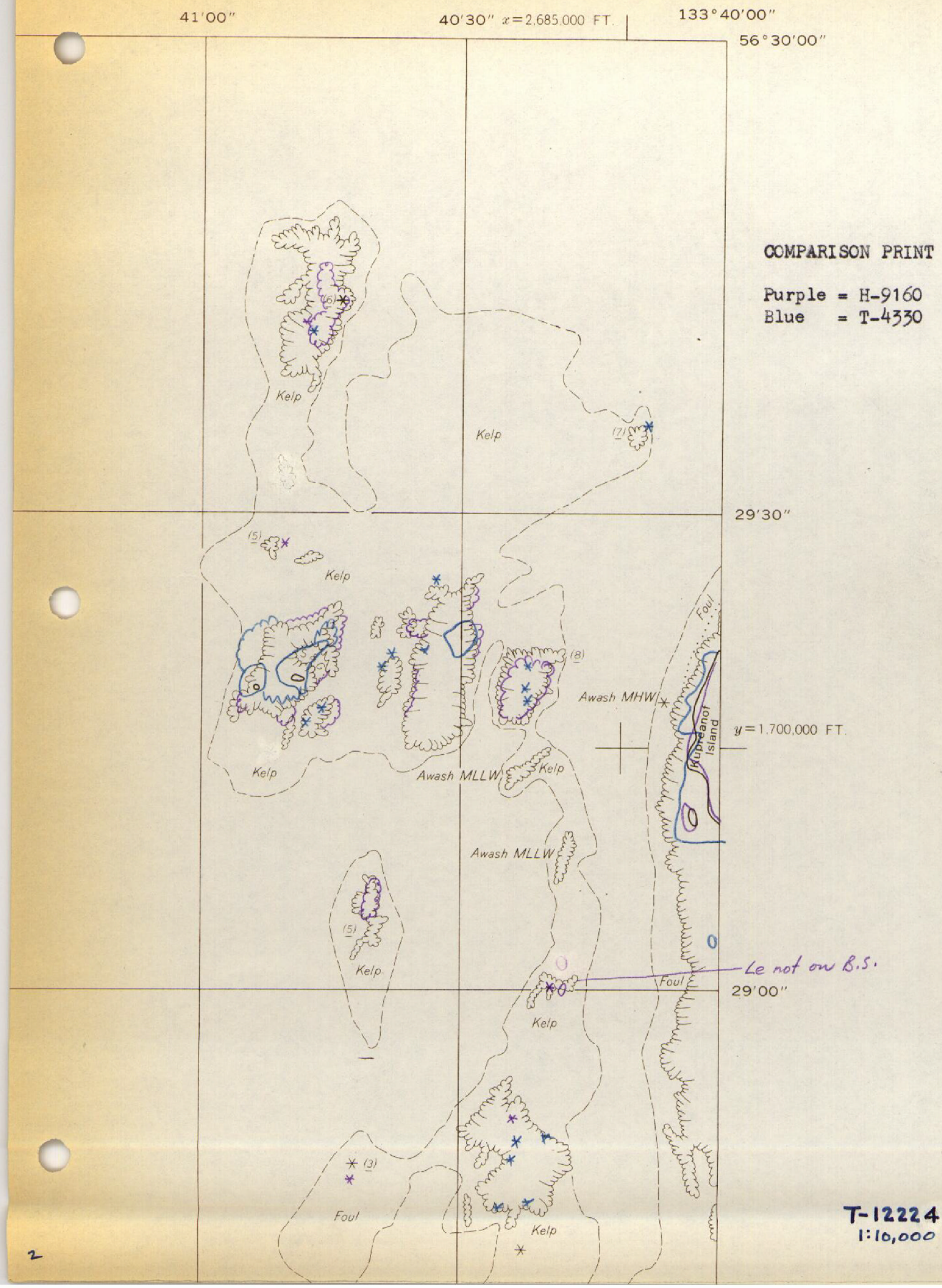
56°30'00"



COMPARISON PRINT

Purple = H-9160
Blue = T-4330

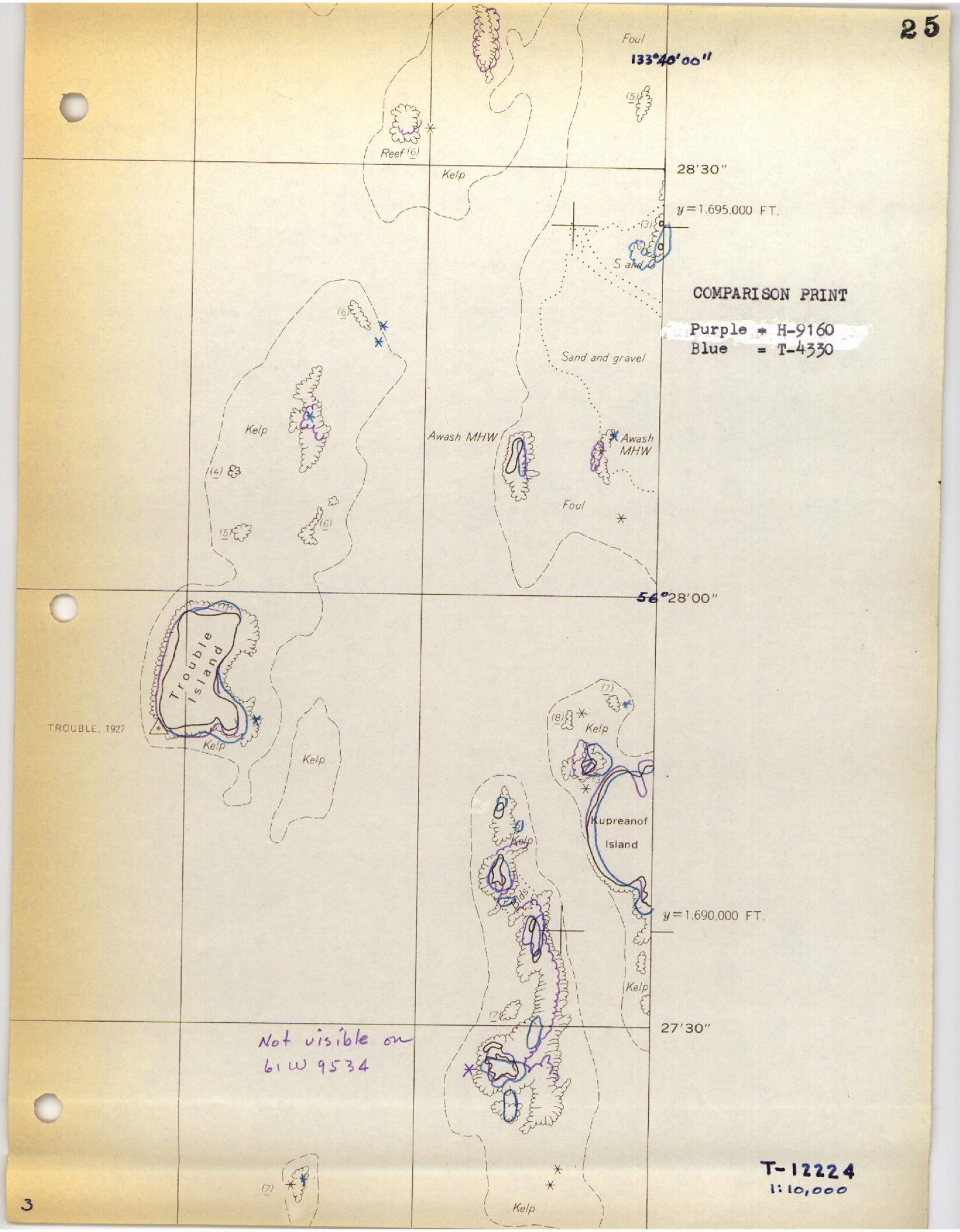
T-12224
1:10,000



COMPARISON PRINT

Purple = H-9160
Blue = T-4330

T-12224
1:10,000

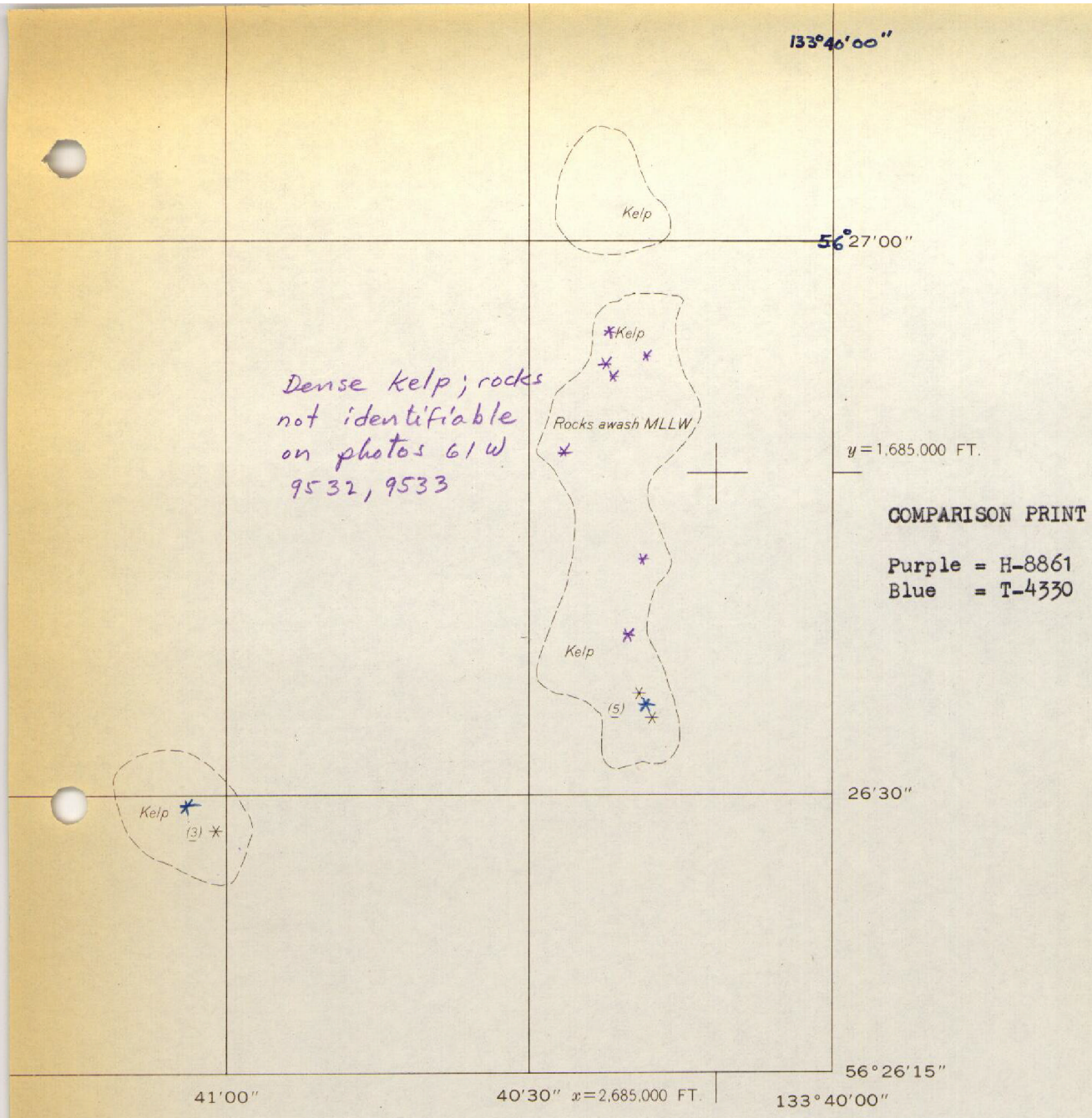


COMPARISON PRINT

Purple = H-9160
Blue = T-4330

Not visible on 61W 9534

T-12224
1:10,000



Dense kelp; rocks not identifiable on photos 61W 9532, 9533

COMPARISON PRINT

Purple = H-8861
Blue = T-4330

der or higher accuracy

n high water

rial photographs

NATIONAL OCEAN SURVEY

SHORELINE MANUSCRIPT

T-12224

ALASKA

KEKU STRAIT

TROUBLE ISLAND

SCALE 1:10,000

(1 inch = 833.33 ft.)

CONTROL DATA

Polyconic projection: 1927 North American datum

5,000 ft. grid based on Alaska plane coordinate system (Zone 1)

Datum plane: Mean High Water

T-12224