

TP-01153

TP-01153

|  |                         |
|--|-------------------------|
| NOAA FORM 76-35<br>(6-80)  |                         |
| U.S. DEPARTMENT OF COMMERCE<br>NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION<br>NATIONAL OCEAN SURVEY          |                         |
| <h2 style="text-align: center;">DESCRIPTIVE REPORT</h2>  |                         |
| THIS MAP EDITION WILL NOT BE FIELD EDITED.   |                         |
| <i>Map No.</i><br>TP-01153   | <i>Edition No.</i><br>1 |
| <i>Job No.</i><br>CM-8200  |                         |
| <i>Map Classification</i><br>CLASS III FINAL   |                         |
| <i>Type of Survey</i><br>SHORELINE   |                         |
| <h3 style="text-align: center;">LOCALITY</h3>  |                         |
| <i>State</i><br>ALASKA   |                         |
| <i>General Locality</i><br>CAPE KILOKAK TO CAPE KUMLIK   |                         |
| <i>Locality</i><br>CAPE PROVIDENCE   |                         |
| <div style="border: 1px solid black; padding: 5px; text-align: center;">           19 83 TO 19 83         </div> |                         |
| <h3 style="text-align: center;">REGISTERED IN ARCHIVES</h3>  |                         |
| <i>DATE</i>  |                         |

|  |  |   |            |
|--|--|---|------------|
| NOAA FORM 76-36A<br>(3-72)   |  | U. S. DEPARTMENT OF COMMERCE<br>NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.   |            |
| <b>DESCRIPTIVE REPORT - DATA RECORD</b>  |  | TYPE OF SURVEY<br><input checked="" type="checkbox"/> ORIGINAL<br><input type="checkbox"/> RESURVEY<br><input type="checkbox"/> REVISED |            |
| PHOTOGRAMMETRIC OFFICE<br>Pacific Marine Center<br>Seattle, Washington<br><br>OFFICER-IN-CHARGE<br><br>David W. Yeager   |  | SURVEY TF. <u>01153</u><br><br>MAP EDITION NO. (1)<br><br>MAP CLASS III Final<br><br>JOB <u>AKCM-8200</u>                               |            |
| I. INSTRUCTIONS DATED  |  | LAST PRECEDING MAP EDITION  |            |
| 1. OFFICE  |  | 2. FIELD  |            |
| Aerotriangulation Feb. 15, 1984<br>Office July 24, 1984  |  | Field Feb. 5, 1982<br>Field (Change 1) May 21, 1982   |            |
| II. DATUMS   |  |   |            |
| 1. HORIZONTAL: <input checked="" type="checkbox"/> 1927 NORTH AMERICAN   |  | OTHER (Specify)   |            |
| 2. VERTICAL: <input checked="" type="checkbox"/> MEAN HIGH-WATER<br><input type="checkbox"/> MEAN LOW-WATER<br><input checked="" type="checkbox"/> MEAN LOWER LOW-WATER<br><input type="checkbox"/> MEAN SEA LEVEL |  | OTHER (Specify)   |            |
| 3. MAP PROJECTION<br><br>Transverse Mercator   |  | 4. GRID(S)<br>STATE Alaska ZONE 6   |            |
| 5. SCALE<br>1:20,000   |  | STATE ZONE  |            |
| III. HISTORY OF OFFICE OPERATIONS  |  |   |            |
| OPERATIONS   |  | NAME  | DATE       |
| 1. AEROTRIANGULATION BY<br>METHOD: <u>Analytic</u> LANDMARKS AND AIDS BY   |  | S. Solbeck  | April 1984 |
| 2. CONTROL AND BRIDGE POINTS PLOTTED BY<br>METHOD: <u>Calcomp 718</u> CHECKED BY   |  | S. Solbeck  | April 1984 |
| 3. STEREOSCOPIC INSTRUMENT PLANIMETRY BY<br>COMPILATION CHECKED BY   |  | D. Butler   | April 1984 |
| INSTRUMENT: <u>Wild B-8</u> CONTOURS BY  |  | J. Minton/ D. Holeski   | Oct. 1984  |
| SCALE: <u>1:20,000</u> CHECKED BY  |  | N.A.  | Nov. 1984  |
| 4. MANUSCRIPT DELINEATION PLANIMETRY BY<br>METHOD: <u>Smooth drafted and graphic</u> CONTOURS BY<br><u>MLLW line</u> CHECKED BY  |  | D. Holeski  | Nov. 1984  |
| SCALE: <u>1:20,000</u> HYDRO SUPPORT DATA BY<br>CHECKED BY   |  | J. Minton   | March 1985 |
| 5. OFFICE INSPECTION PRIOR TO FIELD EDIT BY  |  | N.A.  |            |
| 6. APPLICATION OF FIELD EDIT DATA BY<br>CHECKED BY   |  | N.A.  |            |
| 7. COMPILATION SECTION REVIEW <u>Class III</u> BY  |  | J. Minton   | July 1985  |
| 8. FINAL REVIEW <u>Class III</u> BY  |  | L.O. Neterer, Jr.   | Sept. 1985 |
| 9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH BY   |  | L.O. Neterer, Jr.   | Dec. 1985  |
| 10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH BY   |  | P. Dempsey  | Jan 1986   |
| 11. MAP REGISTERED - COASTAL SURVEY SECTION BY   |  | E. DAUGHERTY  | FEB 1986   |

NOAA FORM 76-36B  
(3-72)

TP-01153

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

## COMPILATION SOURCES

## 1. COMPILATION PHOTOGRAPHY

CAMERA(S) (focal length 152.74 mm)  
Wild R.C. 10 "B"TYPES 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

150°W

☐ DAYLIGHT

| NUMBER AND TYPE      | DATE          | TIME  | SCALE    | STAGE OF TIDE      |
|----------------------|---------------|-------|----------|--------------------|
| 82B(C)6418 thru 6422 | Jul. 19, 1982 | 10:35 | 1:50,000 | 5.3 ft. above MLLW |
| 82B(C)6356 and 6357  | Jul. 19, 1982 | 10:15 | 1:50,000 | 4.6 ft. above MLLW |
| 83B(I)5689 thru 5691 | Aug. 26, 1983 | 9:34  | 1:50,000 | 0.2 ft. above MLLW |
| 83B(I)5660 thru 5662 | Aug. 26, 1983 | 9:09  | 1:50,000 | 0.1 ft. above MLLW |

## REMARKS

Tide levels were calculated for Anchorage Bay subordinate station using Kodiak as the reference station. Mean High Water is 8.1 feet above Mean Lower Low Water.

## 2. SOURCE OF MEAN HIGH-WATER LINE:

The Mean High Water Line was compiled on a Wild B-8 stereoplotter using the color photographs listed above.

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

The Mean Lower Low Water Line was compiled graphically from the infrared enlargements listed in item one above. See the attached aerotriangulation report for the enlargement ratio. These prints were controlled with pass points which were selected and positioned during the compilation of the MHW line described in item two above.

## 4. CONTEMPORARY HYDROGRAPHIC SURVEYS (List only those surveys that are sources for photogrammetric survey information.)

| SURVEY NUMBER | DATE(S) | SURVEY COPY USED | SURVEY NUMBER | DATE(S) | SURVEY COPY USED |
|---------------|---------|------------------|---------------|---------|------------------|
|               |         |                  |               |         |                  |

## 5. FINAL JUNCTIONS

| NORTH                 | EAST      | SOUTH     | WEST     |
|-----------------------|-----------|-----------|----------|
| TP-01148 and TP-01149 | No Survey | No Survey | TP-01152 |

## REMARKS

TP-01153

## HISTORY OF FIELD OPERATIONS

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

| OPERATION                           | NAME   | DATE                 |
|-------------------------------------|--|----------------------|
| 1. CHIEF OF FIELD PARTY             | R. Melby   | June 1982            |
| 2. HORIZONTAL CONTROL               | RECOVERED BY<br>ESTABLISHED BY<br>PRE-MARKED OR IDENTIFIED BY  | None<br>None<br>None |
| 3. VERTICAL CONTROL                 | RECOVERED BY<br>ESTABLISHED BY<br>PRE-MARKED OR IDENTIFIED BY  | N.A.<br>N.A.<br>N.A. |
| 4. LANDMARKS AND AIDS TO NAVIGATION | RECOVERED (Triangulation Stations) BY<br>LOCATED (Field Methods) BY<br>IDENTIFIED BY   | None<br>None<br>None |
| 5. GEOGRAPHIC NAMES INVESTIGATION   | TYPE OF INVESTIGATION<br><input type="checkbox"/> COMPLETE<br><input type="checkbox"/> SPECIFIC NAMES ONLY<br><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

None

2. VERTICAL CONTROL IDENTIFIED

N.A.

| 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 Geodesy Division)

Field Operations Report

NOAA FORM 76-36D  
(3-72)U. S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATIONTP-01153  
RECORD OF SURVEY USE

## I. MANUSCRIPT COPIES

| COMPILATION STAGES             |            |  | DATE MANUSCRIPT FORWARDED |               |
|--------------------------------|------------|--|---------------------------|---------------|
| DATA COMPILED                  | DATE       | REMARKS                                    | MARINE CHARTS             | HYDRO SUPPORT |
| Class III Compilation          | May 1985   | Sent to the field to NOAA Ship FAIRWEATHER |                           |               |
| Class III Compilation Complete | July 1985  | Class III Manuscript                       |                           |               |
| Final Reviewed                 | Sept. 1985 | Final Class III Map                        | 16/12/85                  | 16/12/85      |
|                                |            |  |                           |               |

## II. LANDMARKS AND AIDS TO NAVIGATION None

## 1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH

| NUMBER | CHART LETTER<br>NUMBER ASSIGNED | DATE<br>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.
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<br>EDITION | SURVEY NUMBER<br>TP - _____ (2) | JOB NUMBER<br>PH - _____ | TYPE OF SURVEY<br><input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY  |  |
|-------------------|---------------------------------|--------------------------|---|--|
|                   | DATE OF PHOTOGRAPHY             | DATE OF FIELD EDIT       | MAP CLASS<br><input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL |  |
| THIRD<br>EDITION  | SURVEY NUMBER<br>TP - _____ (3) | JOB NUMBER<br>PH - _____ | TYPE OF SURVEY<br><input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY  |  |
|                   | DATE OF PHOTOGRAPHY             | DATE OF FIELD EDIT       | MAP CLASS<br><input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL |  |
| FOURTH<br>EDITION | SURVEY NUMBER<br>TP - _____ (4) | JOB NUMBER<br>PH - _____ | TYPE OF SURVEY<br><input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY  |  |
|                   | DATE OF PHOTOGRAPHY             | DATE OF FIELD EDIT       | MAP CLASS<br><input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL |  |



SUMMARY TO ACCOMPANY  
DESCRIPTIVE REPORT

TP-01153

This 1:20,000 scale shoreline map is one of eleven maps that comprise project CM-8200 Cape Kilokak, Alaska latitude 57°10'00" south to Cape Kumlik, Alaska latitude 56°30'00". This map includes Sutwik Island.

Photographic coverage was provided in July 1982 with color film at 1:50,000 scale and in August 1983 with black-and-white infrared film at 1:50,000 scale. The Wild RC-10 "B" camera (focal length 152.74 mm) was used for all photography.

Field work prior to compilation, accomplished in June 1982, involved the identification of horizontal control by pre-marking techniques to meet aerotriangulation requirements.

Analytic aerotriangulation was performed at the Washington Science Center in April 1984.

Compilation was performed at the Pacific Marine Center from office interpretation of the 1982 and 1983 photography in July 1985.

Final Review was performed at the Atlantic Marine Center in September 1985. This map is to be registered as a Final Class III map.

This Descriptive Report contains all pertinent information used to compile this final map.

The original base map and all pertinent data were forwarded to the Washington Science Center for final registration.



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**U.S. DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL OCEAN SURVEY  
Pacific Marine Center  
1801 Fairview Avenue East  
Seattle, Washington 98102

August 10, 1982

CPM133/RBM

TO: C3415 - National Ocean Survey

FROM: CPM133 - Pacific Photo Party

SUBJECT: Field Operations Report - Project CM-8200, Cape Kilokak to Cape Kumlik, Alaska, Shoreline Mapping dated February 5, 1982

This shoreline mapping project was undertaken by the Pacific Marine Center Photogrammetric Party during the month of June 1982.

The purpose of the field project was to place panels on selected, horizontal control stations, prior to the scheduled, aerial photography.

Each of the selected stations were paneled as per project instructions.

Additional points were paneled to allow their positioning during the aerotriangulation and monumented to permit future recovery. These points are designated as "PR" Points. "PR" numbers less than 50 are marked with a P-K nail through an aluminum washer, with the point designation stamped on it, and driven into the bare rock, such as PR 10 1981. Numbers above 50 were marked with a length of 3/4" thin-wall conduit pipe, with the point designation stamped on the side of the pipe, such as PR 62 1982 and driven in the ground. A copy of a chart with the approximate location of these points will be included with the field data. Control Station Identification, Form 76-53, was filled out for each horizontal control station or point paneled.

Transportation was by a NOAA helicopter, based out of Port Heiden, Alaska, and Wide Bay, Alaska, with support by the NOAA Ship FAIRWEATHER.

Where stations were missing, new horizontal control was established by Third-order, Class I methods.

A problem developed with the present adjustment of the horizontal control in the area of Sutwik Island. NGS headquarters has been notified of this problem and will probably readjust the existing horizontal control in this area. All field computations are based on the old 1948 adjustment. Station SHANE 1982 was computed on this older adjustment also. Copies of the field observations by the NOAA Ship FAIRWEATHER are included to permit an interim position to be computed for SHANE.

Prior to any aerotriangulation, the National Geodetic Survey headquarters should be contacted (C131, McKay) to determine, if the final adjustment of the horizontal control in the project area, has been accomplished.

Edward J. McKay



The horizontal control has been transmitted to NGS headquarters via the telephone data terminal. Again, all computations and positions are based on the old 1948 adjustment to permit consistency of data.

Respectfully Submitted,

*Robert B. Melby*

Robert B. Melby  
Chief, PMC Photo Party



**U.S. DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
 NATIONAL OCEAN SURVEY  
 Pacific Marine Center  
 1801 Fairview Avenue East  
 Seattle, Washington 98102

August 10, 1982

CPM133/RBM

TO: C174 - National Ocean Survey

FROM: CPM133 - Pacific Photo Party

SUBJECT: Field Report, Cape Kilokak to Cape Kumlik, Alaska  
 Project CM-8200, TSN No: 315 thru 365

Authority: Project Instructions, Field - Job CM-8200, Cape Kilokak to Cape Kumlik, Alaska, Shoreline Mapping dated February 5, 1982.

General: The project is along a section of the southeast shoreline of the Alaska Peninsula, Shelikof Strait, Alaska. The main purpose of the project was to premark horizontal control stations, prior to scheduled aerial photography. The supplemental, horizontal control stations that were established by the field party, were to augment the existing control or to replace missing stations.

Terrain: The area is a barren, rainy, windswept coastline of the Alaska Peninsula, devoid of permanent human habitations or trees.

Personnel: Two employees of the NGS Mark Maintenance Program, one member of the Pacific Photo Party, and one Junior officer of the NOAA Ship FAIRWEATHER performed the field functions.

Transportation: Transportation was accomplished by a NOAA helicopter with support from the NOAA Ship FAIRWEATHER.

Equipment: 2 Wild T-2 theodolites  
 1 Hewlett-Packard, Model 3808A EDM Instrument  
 2 Tellurometers Model CA-1000  
 1 0.5. Meter, Mirror Bar  
 2 K&E Retrodirective Prisms  
 Various tripods, signal poles, etc.

Field Methods: Third-order traverse methods were employed by the field party.

Computations: The field computations were performed with Hewlett-Packard hand held and desk calculators, and satisfactory results were obtained..

A problem developed during the field observations at statio KUMLIK 1925. The field observed, check angle, between BLU 1925 and SUT 1925, failed to agree by more than 20 seconds using the most recently published horizontal positions. (Adjustment of Nov 1976 (G-15838)). By reverting to the old lithograph, Geographic Positions, Vol. V, pages 35 and 81, Revised 6/10/48,



a satisfactory check angle was obtained. There appears to be a problem with the NOV 1976 readjustment, as the horizontal angle produced by inverses worked between KUMLIK to BLU and KUMLIK to SUT, using both the old and the 1976 adjustments, failed to agree by about 20 seconds. There appears a possible problem of rotation and an uneven lateral shift in the 1976 adjustment.

The NGS headquarters were alerted to the possible discrepancies, and stated that the final disposition of the adjustment in the area of Sutwik Island would not be finalized, until the field records of this project, are submitted to do a further comparison of observations at station KUMLIK, involving BLU and SUT.

All the positions used and transmitted through the telephone data terminal are the "old" Geographic Positions, to allow the field data to be consistent throughout, until the final horizontal control adjustment is made.

Records: All the field data was entered and processed through the NGS data telephone terminal.

Respectfully Submitted,

*R.B. Melby*

R. B. Melby  
Chief, Pacific Photo Party

PHOTOGRAMMETRIC PLOT REPORT  
Cape Kilokak to Cape Kumlik, Alaska  
CM-8200  
April 1984

AREA COVERED

The area covered by this report is the eastern shoreline of the Alaskan Peninsula, from Cape Kumlik, north to Cape Kilokak. The area is covered by eleven 1:20,000 scale manuscripts (TP-01148 through TP-01158).

METHOD

Seven strips of 1:50,000 scale color photographs and one strip of 1:12,000 scale color photographs (TP-01156) were bridged by Standard Analytic Aerotriangulation Methods. The horizontal control was premarked with positions being determined on a revised 1948 adjustment (see Field Report). Tie points were needed to supplement the premarked horizontal stations to control three of the strips. Tie points were also used to ensure the adequate junctioning between adjacent bridging strips.

The 1:50,000 scale bridging photographs provided two additional functions: one, to locate and identify a series of premarked hydrographic panels which are to be used in future hydrographic surveys in this area; the other being to provide ratio values for the 1:30,000 scale color compilation photographs and all of the 1:50,000 scale photographs used in the project.

Ratio values were determined for the bridging photographs, 1:30,000 scale color, and the black-and-white infrared photographs that are to be used for delineating MLLW and MHW. Ratios of the bridging and the MLLW photographs were ordered.

The positions of nineteen Hydrographic Control Stations were determined. All were measured on the 1:50,000 scale bridging photography. The panels of three Hydrographic Control Stations could not be identified and, therefore, were not positioned.

The manuscripts were plotted on the Calcomp 718 Plotter using the Alaska State Plane Coordinate System, Zone 6.

ADEQUACY OF CONTROL

Of the control provided, all held within the National Standards of Map Accuracy, except for station Goon, 1945. This station was paneled direct, but could not be held closer than 15 feet in X and 30 feet in Y. Upon completion of the photo mission, the field party did not return to verify that the panels, which had been set in place one month prior, had

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remained in tact. station Goon, along with other paneled stations, did not appear on the photographs as sketched by the field party. This office is assuming that the panel marking station Goon had moved prior to being photographed. It was not held in the adjustment.

Except for station Goon, 1945, the control provided, proved to be adequate for completion of the project. Tie points were required in some areas to supply necessary horizontal control.

#### SUPPLEMENTAL DATA

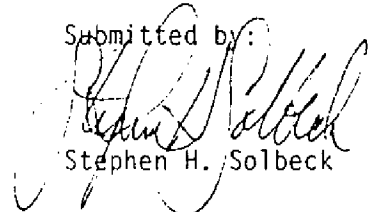
USGS quadangles were used to provide vertical control for the project.

Nautical Charts were used to locate aids and landmarks.

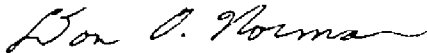
#### PHOTOGRAPHY

The coverage, overlap, and quality of the photographs proved adequate for completion of the project.

Submitted by:

  
Stephen H. Solbeck

Approved and Forwarded:

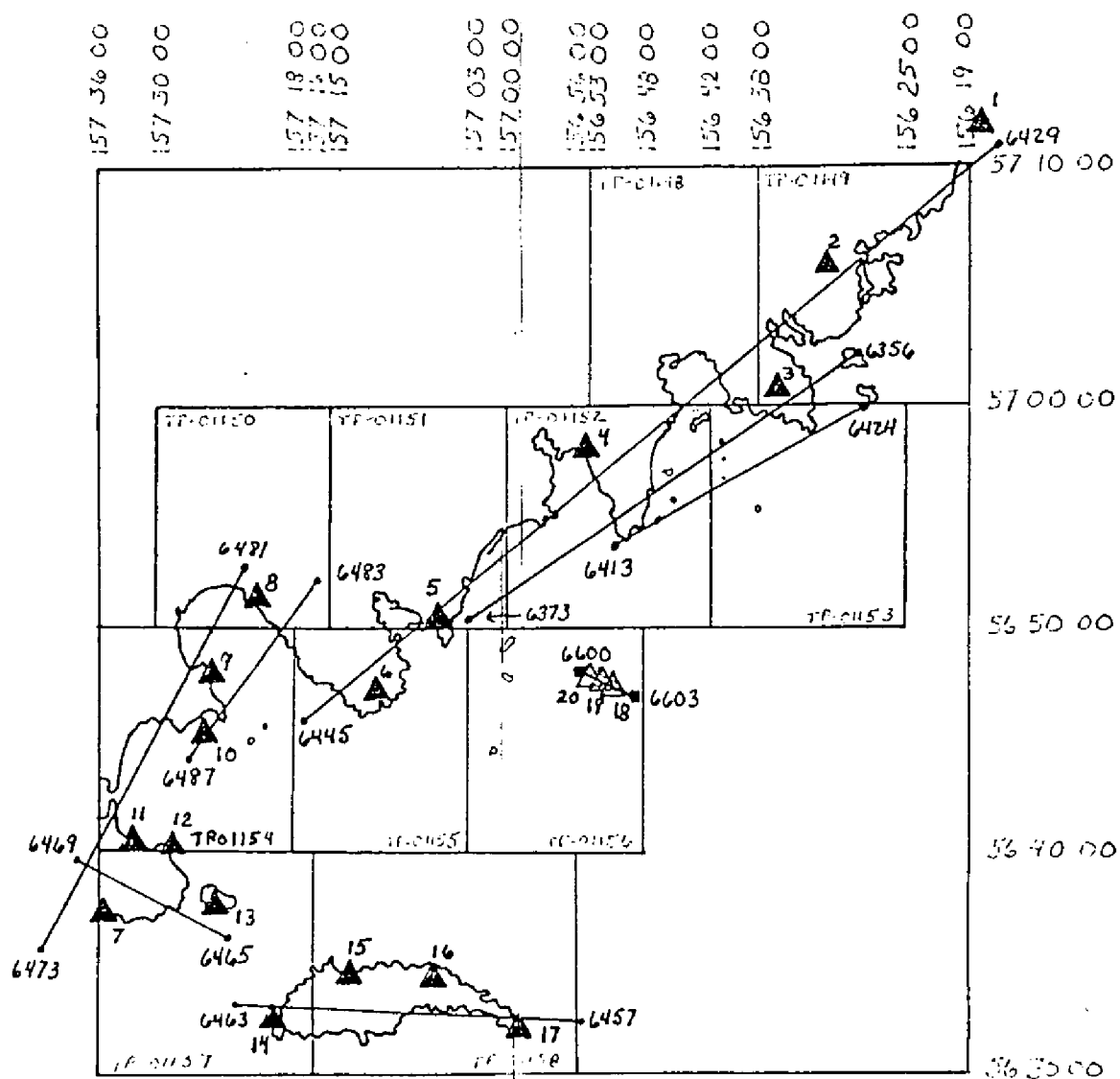


Don O. Norman  
Chief, Aerotriangulation Unit

# CH 8200 CAPE KILOKAK TO CAPE KUMLIK ALASKA

## BRIDGING PHOTOGRAPHS

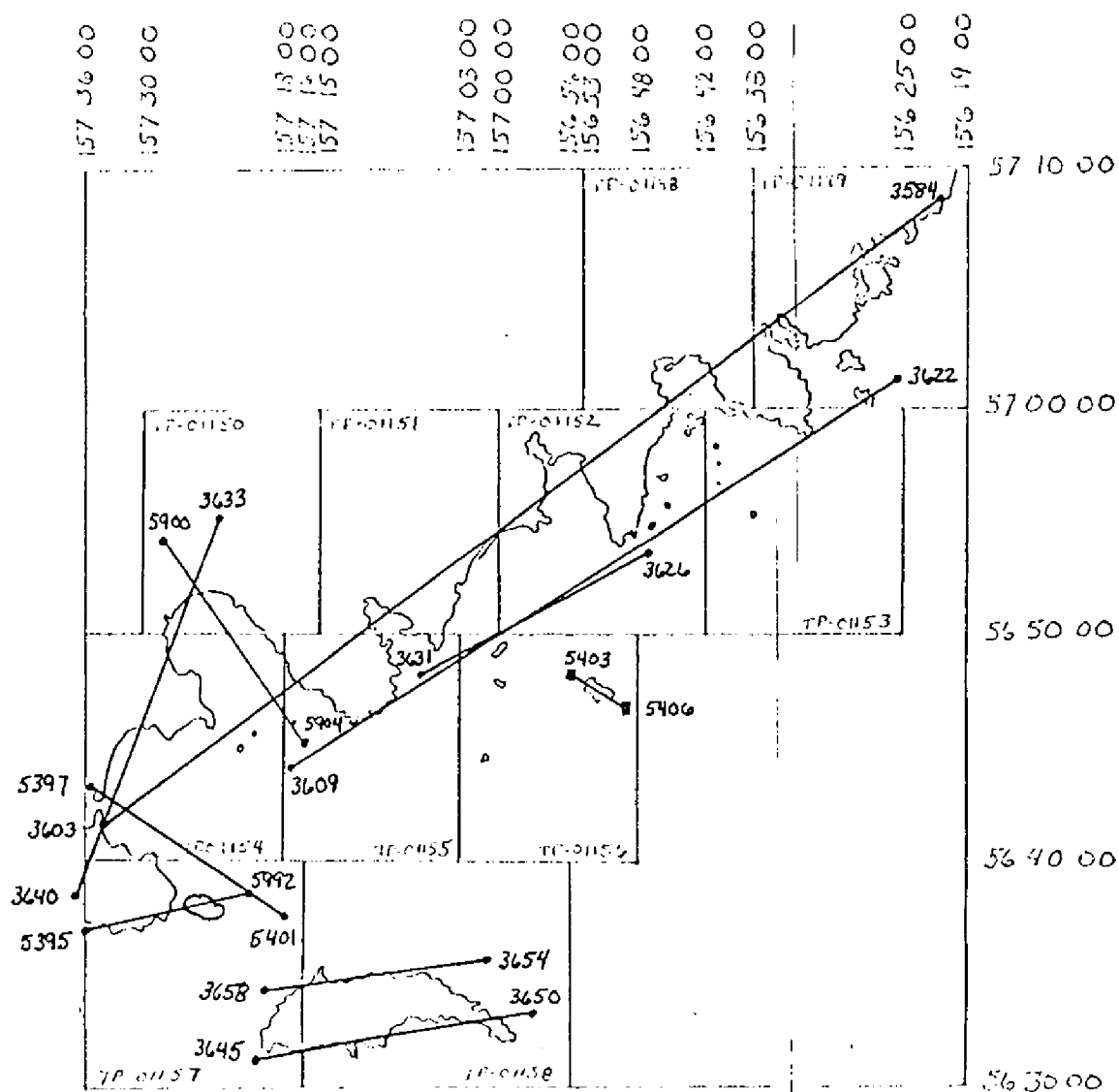
- 82B(C) 1:50000
- 82B(C) 1:12000
- ▲ HORIZONTAL CONTROL



# CIN 8200 CAPE KILOKAK TO CAPE KUIHLIK ALASKA

BLACK AND WHITE INFRARED PHOTOGRAPHS  
MHW

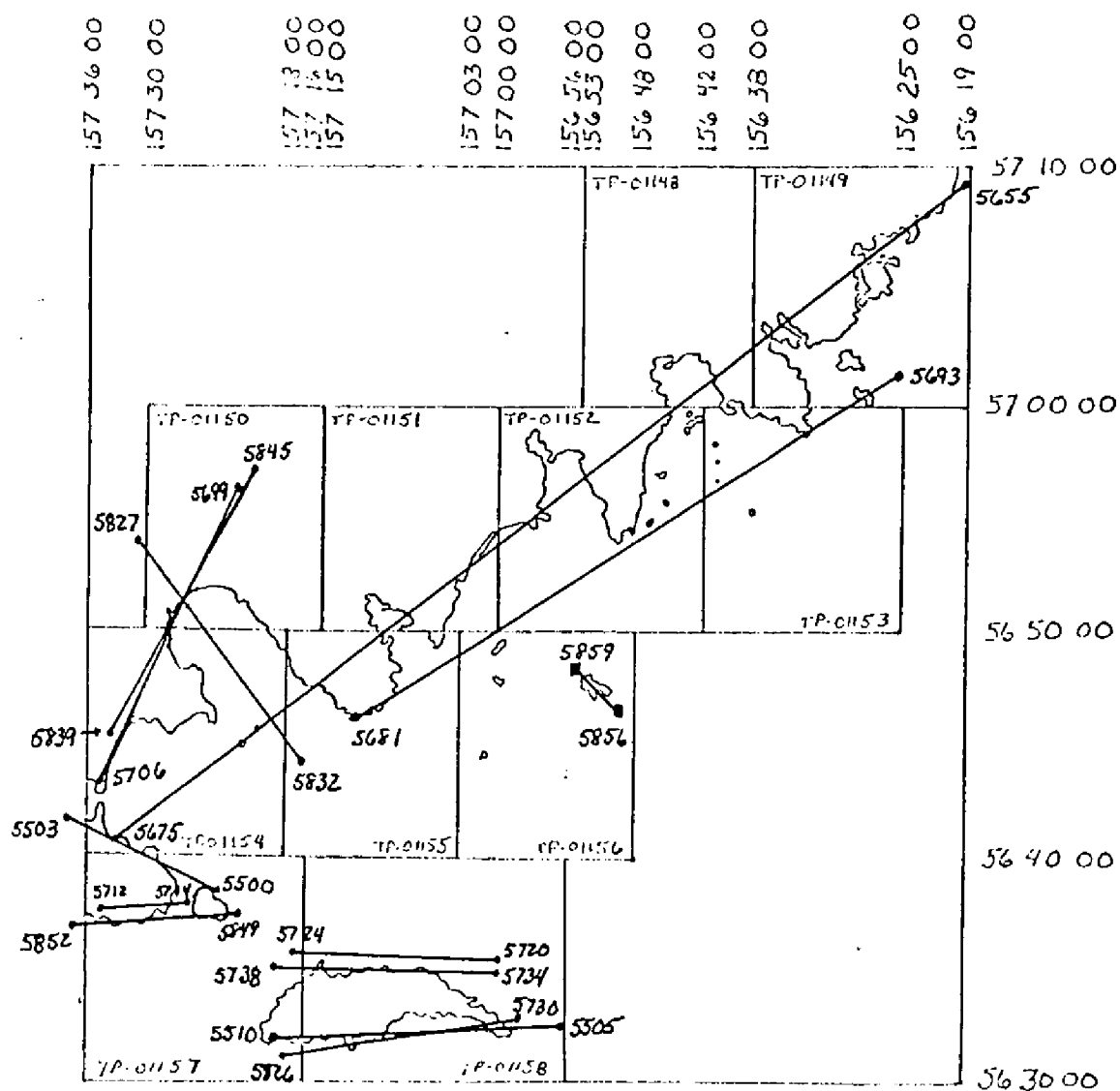
- 83 B (R) 1:50000
- 83 B (R) 1:12000



# CIN-8200 CAPE KILOKAK TO CAPE KUIRLIK ALASKA

BLACK AND WHITE INFRARED PHOTOGRAPHS  
MLLW

- 83 B(R) 1:50000
- 83 B(R) 1:12000



## REFERENCE TO SKETCH OF BRIDGING PHOTOGRAPHS

|    |                         |          |
|----|-------------------------|----------|
| 1  | SHANE, 1982             | (429100) |
| 2  | LAGOON, 1944            | (433100) |
| 3  | PORT, 1944              | (435100) |
| 4  | NAKOLILOK E. BASE, 1944 | (438100) |
| 5  | YANT, 1944              | (442100) |
| 6  | KUNMIK, 1944            | (444100) |
| 7  | RUSS, 1982              | (469100) |
| 8  | ASPEN, 1945             | (481100) |
| 9  | GOON, 1945              | (479100) |
| 10 | LAND, 1945              | (478100) |
| 11 | LAG, 1945               | (468100) |
| 12 | BLU, 1925               | (467100) |
| 13 | KUMLIK, 1925            | (465100) |
| 14 | ATTI, 1982              | (462100) |
| 15 | SUT, 1925               | (461100) |
| 16 | WIK, 1925               | (460100) |
| 17 | FOGGY CAPE LIGHT, 1944  | (458100) |
| 18 | HAWK, 1944              | (603100) |
| 19 | HUEY, 1982              | (602100) |
| 20 | UGAI, 1944              | (600100) |

## Fit to Control

| <u>Station Name</u>    | <u>Values in Feet</u> |                      |
|------------------------|-----------------------|----------------------|
|                        | <u>X</u>              | <u>Y</u>             |
| <u>1:12,000</u>        |                       |                      |
| <u>STRIP #1</u>        |                       |                      |
| OGAI, 1944             | 600100△               | .001      -.001      |
| HUEY, 1982             | 602100△               | .000      .000       |
| HAWK, 1944             | 603100△               | .000      .000       |
| <u>1:50,000</u>        |                       |                      |
| <u>STRIP #1</u>        |                       |                      |
| ATTI, 1982             | 462100△               | -.307      .068      |
| SUT, 1925              | 461100△               | -.561      -.954     |
| WIK, 1925              | 460100△               | .873      .497       |
| FOGGY CAPE LIGHT, 1944 | 458100△               | -.004      .388      |
| <u>STRIP #2</u>        |                       |                      |
| KUMLIK, 1925           | 465100△               | .422      -.700      |
| BLU, 1925              | 467100△               | -2.398      .860     |
| LAG, 1945 - Sub Point  | 468101△               | 1.938      .300      |
| RUSS, 1982             | 469100△               | .024      -.456      |
| <u>STRIP #3</u>        |                       |                      |
| RUSS, 1982             | 469100△               | -2.184      .991     |
| LAG, 1945 - Sub Point  | 468101△               | 5.473      -1.354    |
| LAND, 1945             | 478100△               | -4.094      .753     |
| GOON, 1945             | 479100                | -15.787      -32.546 |
| ASPEN, 1945            | 481100△               | .806      -.388      |
| <u>STRIP #4</u>        |                       |                      |
| GOON, 1945             | 479100                | -15.482      -30.214 |
| TIE from #3            | 485801△               | -.172      .324      |
| TIE from #3            | 485802△               | -.189      -.390     |
| TIE from #3            | 486801△               | -.729      -.022     |
| TIE from #3            | 486802△               | -.310      -1.093    |

2

|             |         |        |       |
|-------------|---------|--------|-------|
| TIE FROM 3# | 486803△ | .881   | .990  |
| LAND, 1945  | 478100  | -6.042 | 5.116 |
| TIE FROM #3 | 487801△ | .472   | -.773 |
| TIE FROM #3 | 487802△ | -.963  | .813  |
| TIE FROM #3 | 487803△ | .900   | .051  |

STRIP #6

|                         |         |        |        |
|-------------------------|---------|--------|--------|
| SHANE, 1932 - Sub Point | 429101△ | .838   | -1.243 |
| LAGOON, 1944            | 433100△ | -2.495 | 3.446  |
| PORT, 1944              | 435100△ | 1.204  | -2.546 |
| NAKOLILOK E. Base, 1944 | 438100△ | -.038  | .454   |
| YANT, 1944              | 442100△ | 1.785  | -.397  |
| KUNMIK, 1944            | 444100△ | -1.290 | .293   |

STRIP #7

|                     |         |        |        |
|---------------------|---------|--------|--------|
| ALL POINTS ARE TIES | 356801△ | 1.099  | -.088  |
| FROM STRIP #6       | 356802△ | -1.134 | 1.198  |
|                     | 356803△ | .794   | .266   |
|                     | 357801△ | -2.517 | -1.172 |
|                     | 357802△ | .991   | -1.309 |
|                     | 357803△ | -1.949 | .448   |
|                     | 358801△ | 2.983  | -.853  |
|                     | 358802△ | 1.302  | .231   |
|                     | 358803△ | .840   | 1.773  |
|                     | 360801△ | .320   | .020   |
|                     | 360802△ | -1.647 | .175   |
|                     | 360803△ | -2.752 | .519   |
|                     | 362801△ | 2.019  | 1.803  |
|                     | 362802△ | -.686  | .804   |
|                     | 362803△ | .151   | -3.205 |
|                     | 364801△ | -.485  | 1.800  |
|                     | 364802△ | -.670  | 1.283  |
|                     | 364803△ | 1.380  | .985   |

3

|        |       |       |
|--------|-------|-------|
| 365801 | .948  | 1.272 |
| 365802 | -.842 | -.433 |
| 365803 | -.458 | -.873 |

STRIP #8

|              |         |        |        |
|--------------|---------|--------|--------|
| TIES FROM #6 | 413801  | -.026  | .789   |
| #6           | 413802  | -.191  | 2.415  |
| #6           | 413803△ | -1.430 | 1.784  |
| #6           | 413804  | -.566  | .704   |
| #6           | 413805  | -3.305 | .638   |
| TIE FROM #7  | 413806  | -.407  | -2.578 |
| #7           | 413807  | .371   | -.638  |
| #7           | 413808  | -2.094 | .115   |
| #7           | 414801  | 3.171  | -.452  |
| #7           | 414802△ | 2.085  | -1.015 |
| #7           | 414803  | 3.397  | -4.059 |
| TIE FROM #6  | 360801△ | 2.766  | -1.955 |
| #6           | 360802  | 1.186  | 1.216  |
| #6           | 360803△ | -2.546 | -.019  |
| TIE FROM #7  | 416801  | 2.708  | 3.426  |
| #7           | 416802△ | 1.537  | 1.787  |
| #7           | 416803  | -.989  | -.915  |
| TIE FROM #6  | 417801△ | -3.838 | 1.437  |
| #6           | 417802  | -3.929 | 1.244  |
| TIE FROM #7  | 417804△ | .109   | -.675  |
| #7           | 417805  | -.753  | .041   |
| #7           | 417806  | -.479  | -.108  |
| #7           | 417807  | -1.098 | -.992  |
| PORT, 1944   | 435100△ | -.016  | -1.680 |
| TIE FROM #7  | 419801△ | 1.225  | -.138  |
| #7           | 419802  | 2.174  | -1.229 |
| #7           | 419803  | .490   | 1.077  |
| TIE FROM #6  | 356801△ | 1.294  | 1.127  |

|             | 4       |        |        |
|-------------|---------|--------|--------|
| TIE FROM #6 | 356802  | 2.300  | 2.957  |
| #6          | 356803  | -2.906 | -3.178 |
| TIE FROM #7 | 420802△ | -1.186 | -.653  |
| #7          | 420803  | -.779  | -1.627 |

△ STATIONS HELD IN THE STRIP ADJUSTMENTS

## Ratio Values

CM-8200

Cape Kilokak to Cape Kumlik, Alaska

1:50,000 Color Bridging Photographs Ratio Value

|                        |       |
|------------------------|-------|
| 82 B(C) 6356 thru 6365 | 2.565 |
| 6413 " 6420            | 2.559 |
| 6429 " 6445            | 2.567 |
| 6457 " 6463            | 2.564 |
| 6465 " 6469            | 2.569 |
| 6473 " 6481            | 2.568 |
| 6483 " 6487            | 2.562 |
| 6600 " 6603 (1:12,000) | .608  |

1:50,000 Black-and White-Infrared Photographs-MHW

|                        |       |
|------------------------|-------|
| 83 B(C) 3584 thru 3603 | 2.538 |
| 3609 " 3622            | 2.535 |
| 3626 " 3631            | 2.543 |
| 3633 " 3640            | 2.538 |
| 3644 " 3650            | 2.537 |
| 3654 " 3658            | 2.539 |
| 5392 " 5395            | 2.573 |
| 5397 " 5401            | 2.571 |
| 5403 " 5406 (1:12,000) | .606  |

1:50,000 Black-and-White Infrared Photographs-MLLW

|                        |       |
|------------------------|-------|
| 83 B(R) 5500 thru 5503 | 2.491 |
| 5505 " 5510            | 2.487 |
| 5655 " 5675            | 2.497 |
| 5681 " 5693            | 2.500 |
| 5699 " 5706            | 2.500 |
| 5712 " 5714            | 2.503 |

2

|                        |       |
|------------------------|-------|
| 83 B(R) 5720 thru 5724 | 2.503 |
| 5726 " 5730            | 2.504 |
| 5734 " 5738            | 2.502 |
| 5827 " 5832            | 2.538 |
| 5839 " 5845            | 2.557 |
| 5849 " 5852            | 2.545 |
| 5856 " 5859 (1:12,000) | .584  |

1:30,000 Color Compilation Photographs

|                           |       |
|---------------------------|-------|
| 82 B(C) 6606 thru 6615    | 1.531 |
| 6624 " 6626               | 1.532 |
| 6649 " 6659               | 1.526 |
| 6660 " 6661               | 1.526 |
| 6665 " 6676               | 1.530 |
| 6693 " 6703               | 1.529 |
| 6708-09, 6711-13, 6715-18 | 1.532 |
| 6885                      | 1.524 |
| 8438 thru 8442            | 1.527 |
| 8444 " 8447               | 1.526 |
| 8467 " 8473               | 1.520 |
| 8484 " 8487               | 1.533 |
| 8490-93, 8495-96          | 1.529 |
| 8503 thru 8505            | 1.523 |
| 8515 " 8522               | 1.536 |
| 8576 " 8584               | 1.500 |
| 8651 " 8656               | 1.531 |

## Compilation Report

TP-01153

31. Delineation

Delineation was accomplished by a combination of stereo instrument and graphic methods. The color bridging photographs were used in conjunction with a Wild B-8 to compile the MHW line and interior detail as well as bare and awash rocks. Pass points were also selected and positioned on the B-8 to control the enlarged infrared photographs taken at predicted mean lower low water. These enlarged infrared photographs were used to graphically compile the MLLW line, ledges, and additional rocks which may not have been visible on the color bridging photographs because of the difference in water level. Complete photo coverage was not provided for this manuscript. Consequently, no detail could be compiled south of a line from approximately  $56^{\circ}53'N/156^{\circ}42'W$  to  $56^{\circ}57'N/156^{\circ}25'W$ . There appears to have been some confusion during the bridging phase relating to photo numbers and control point numbers associated with photos 82B(C) 6418, 6420, and 6422. The transparencies are printed with frame numbers 6418, 6420, and 6422 but the contact prints have been renumbered 6416, 6417, and 6418 respectively. The bridge points are numbered to correspond with the contact print serial numbers rather than the transparency numbers. Hence, transparency 82B(C) 6418 is drilled at points which are numbered 416310, 416320, and 416330. Transparency 82B(C) 6420 is drilled at points numbered 417310, 417320, 417330 and transparency 82B(C) 6422 is drilled at points recorded as 418310, 418320, and 418330.

32. Control

As discussed in the preceding Photogrammetric Plot Report, dated April 1984, control is adequate.

33. Supplemental Data

None

34. Contours and Drainage

Contours are not required on this project. Drainage was delineated on the stereoplotter from the color 1:50,000 scale bridging photographs.

35. Shoreline and Alongshore Detail

The preceding form 76-36B, as well as section 31 of this report detail the sources and method used to compile the shoreline and alongshore detail. Standard symbolization was used throughout this manuscript. Infrared contact prints 83B(I) 3618 thru 3622 were provided and used as interpretive aids. The tide level displayed on these 1:50,000 scale prints was calculated to be 1.7 feet below Mean High Water.

36. Offshore Detail

Offshore detail was compiled in the same manner as the shoreline and along-shore detail discussed in the preceding section of this report. As noted in item 31 above, detail south of a line extending from 56°53'N/156°42'W to 56°57'N/156°25'W could not be compiled due to lack of photo coverage.

37. Landmarks and Aids to Navigation

There are no charted landmarks or aids to navigation within this manuscript.

38. Control for Future Surveys

None

39. Junctions

Refer to the preceding form 76-36B, item five.

40. Horizontal and Vertical Accuracy

Refer to the Photogrammetric Plot Report, dated April 1984.

46. Comparison with Existing Maps

A comparison was made with the following U.S.G.S. quadrangles:

SUTWIK ISLAND (D-3), Alaska, 1954, 1:63,360 scale  
SUTWIK ISLAND, Alaska, 1963, 1:250,000 scale

47. Comparison with Nautical Charts

A comparison was made with the following National Ocean Service chart:

Wide Bay to Cape Kumlik, 16568, 5th edition, December 9, 1978,  
1:106,300 scale.

Items to be applied to Nautical Charts immediately: None

Submitted by,

*Daniel C. Holeski*

Daniel C. Holeski  
March 6, 1985

Approved:

*James R. Minton*

James R. Minton  
Acting Chief, Photogrammetric Section  
March 13, 1985

25  
AUG 13 1985

GEOGRAPHIC NAMES

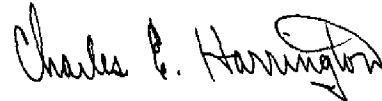
FINAL NAME SHEET

CM-8200 (Cape Kilokak to Cape Kumlik, Alaska)

TP-01153

Cape Providence  
Chiginagak Bay  
Navy Island  
Shelikof Strait

Approved:



Charles E. Harrington  
Chief Geographer  
Nautical Charting Division

REVIEW REPORT  
SHORELINE  
TP-01153

61 - GENERAL STATEMENT

See Summary included with this 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:  
Sutwik Island (D-3), Alaska, dated 1954, scale 1:63,360  
Sutwik Island, Alaska, dated 1963, scale 1:250,000.

64 - COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS

There are no contemporary hydrographic surveys within the limits of this map.

65 - COMPARISON WITH NAUTICAL CHARTS

A comparison was made with the following N.O.S. Chart:  
Preliminary Chart 16568, 5th edition, dated December 9, 1978, scale 1:106,600.

66 - ADEQUACY OF RESULTS AND FUTURE SURVEY

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

Submitted by



Lowell O. Neterer, Jr.  
Final Reviewer  
30 August 1985

Approved for forwarding,

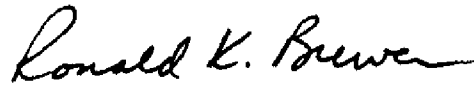


Billy H. Barnes  
Chief, Photogrammetric Section

Approved,



Chief, Photogrammetric Section,  
Rockville



Chief, Photogrammetry Branch,  
Rockville

# NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

TO: N/MOP - Robert L. Sandquist

FROM: *JS* N/CG2 - J. Austin Yeager *✓* F. Frederick K. Ganjon

SUBJECT: Aerotriangulation Stations and Shoreline Accuracy for  
OPR-P180-FA-86

REF: Memorandum to N/MOP from Commanding Officer, NOAA Ship  
FAIRWEATHER, Same Subject, dated August 19, 1986

The Commanding Officer, NOAA Ship FAIRWEATHER S220, has established that the control points furnished by the Aerotriangulation Unit, Photogrammetry Branch (PB), for Job CM-8200, Cape Kilokak to Cape Kumlik, Alaska, have a datum shift of approximately 18 meters. PB investigated this discrepancy and found it correct. When this project was bridged by aerotriangulation, the control points used were based on a 1948 geodetic adjustment. A new geodetic adjustment was performed in 1976. This adjustment caused a datum shift in longitude of approximately 1 second and .05 to .1 second in latitude

Five geodetic control stations were selected from Job CM-8200 extending over the whole project. A comparison was made between the 1948 and 1976 adjustments.

| Station | 1948 Adjustment | 1976 Adjustment | Datum Shift | Meters |
|---------|-----------------|-----------------|-------------|--------|
| Lagoon  | 57°06'02.626"   | 57°06'02.722"   | .096"       | 2.97   |
| 1944    | 156°30'28.250"  | 156°30'29.290"  | 1.040"      | 17.50  |
| Port    | 57°00'40.699"   | 57°00'40.792"   | .093"       | 2.87   |
| 1944    | 156°35'41.795"  | 156°35'42.836"  | 1.041"      | 17.57  |
| Yant    | 56°50'45.505"   | 56°50'45.579"   | .074"       | 2.29   |
| 1944    | 157°06'22.039"  | 157°06'23.072"  | 1.033"      | 17.51  |
| Sut     | 56°34'17.611"   | 56°34'17.673"   | .062"       | 1.92   |
| 1925    | 157°12'56.916"  | 157°12'57.916"  | 1.000"      | 17.08  |
| Lag     | 56°40'38.729"   | 56°40'38.779"   | .050"       | 1.55   |
| 1954    | 157°31'53.263"  | 157°31'54.285"  | 1.022"      | 17.40  |

N/CG2311:PDempsey:443-8340:  
jls:9/17/86:Aero/Alaska:APK2

**FILE COPY**

| CODE     | SURNAME       | DATE           | CODE | SURNAME | DATE |
|----------|---------------|----------------|------|---------|------|
| N/CG2311 | <i>Wright</i> | <i>9/17/86</i> |      |         |      |
| N/CG2311 | <i>Breche</i> | <i>9/17</i>    |      |         |      |

The mean value of this adjustment is 17.4 meters in longitude and 2.3 meters in latitude. This should be taken into consideration when applying these manuscripts.

A copy of this Memorandum will be inserted in each Descriptive Report for Job CM-8200.

cc:

N/MOP21 - Richards

N/CG22 - Nortrup

N/CG23 - Brewer

N/CG24 - Matsushige

### RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO.

## INSTRUCTIONS

**A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart**

1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

[illegible]