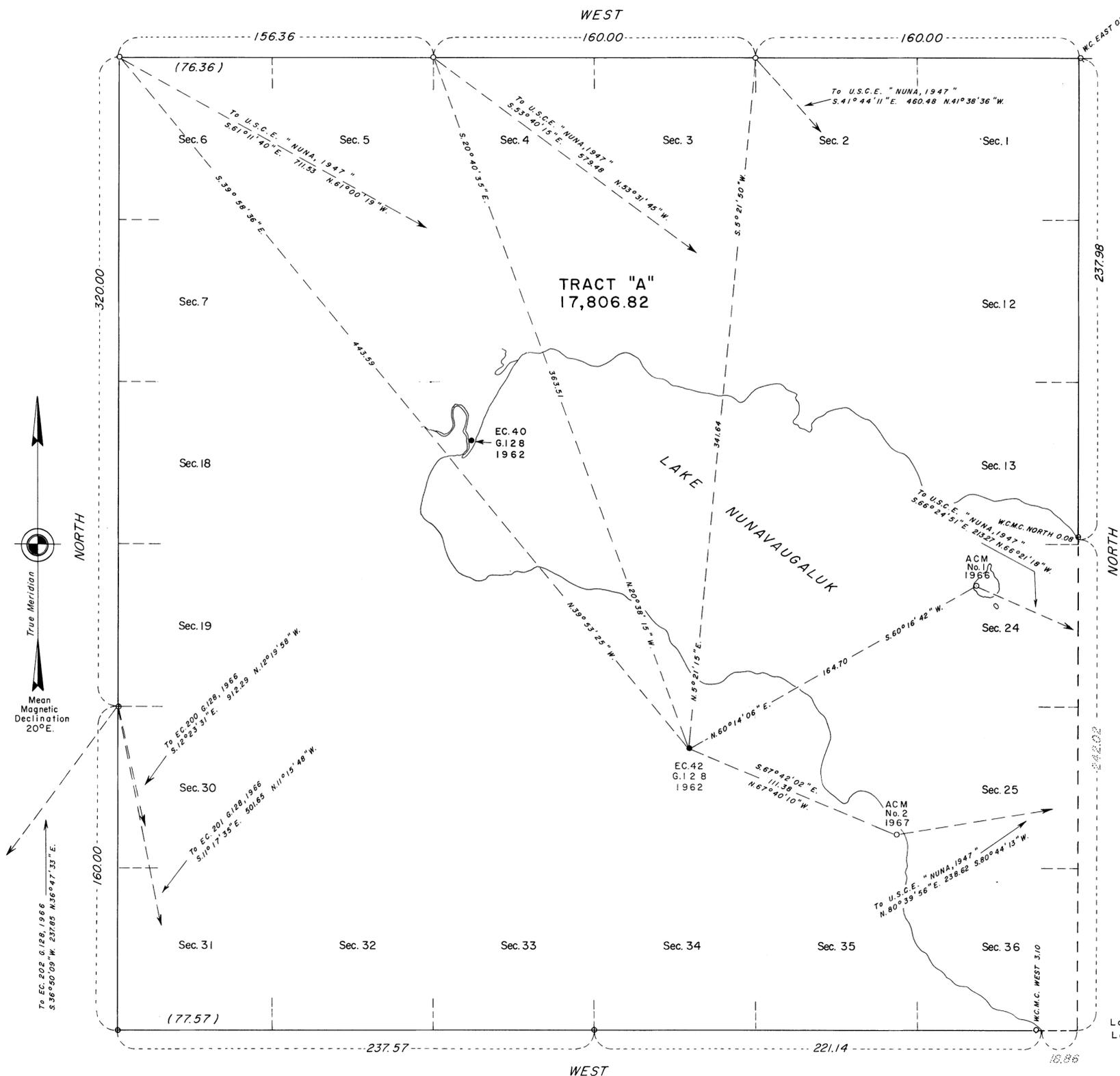


# TOWNSHIP 10 SOUTH, RANGE 58 WEST, OF THE SEWARD MERIDIAN, ALASKA



The south and east boundaries were surveyed concurrently under adjoining townships.

The survey of the west and north boundaries of T. 10 S., R. 58 W., Seward Meridian, was executed by Frederick W. Ward, Supervisory Cadastral Surveyor, June 28, 1966, through August 27, 1967, under Special Instructions dated April 10, 1962 and Supplemental Special Instructions dated June 11, 1962 and May 9, 1966 for Group No. 128, Alaska.

The gross area surveyed embraces the entire township including a portion of Lake Nunavaugaluk and islands therein.

The net area shown hereon being exclusive of a portion of Lake Nunavaugaluk but inclusive of the islands in place therein, which were in existence at the time of survey, has been designated Tract "A" for legal description purposes.

Gross Area Surveyed 22,894.32 Acres

Exclusions:	
Lake Nunavaugaluk (portion)	5,087.50 Acres
<b>Net Area Tract "A"</b>	<b>17,806.82 Acres</b>

The hydrography shown on this plat was obtained from the best available U.S. Geological Survey maps.

UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
Washington, D.C. January 11, 1973

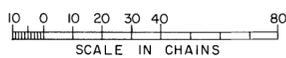
This plat is strictly conformable to the approved field notes, and the survey, having been correctly executed in accordance with the requirements of law and the regulations of this Bureau, is hereby accepted.

For the Director

*Clark F. Hunter*

Chief, Division of Cadastral Survey

Latitude 59° 15' 36.75" N.  
Longitude 158° 57' 26.19" W.



- ⊙ FIBER GLASS POST WITH BRASS CAP
- BRASS CAPPED IRON POST
- COPPERWELD MONUMENT

J.V.D.

Jalwo

DATE JULY 5, 1991

# TOWNSHIP 10 SOUTH, RANGE 58 WEST, OF THE SEWARD MERIDIAN, ALASKA SUPPLEMENTAL PLAT

This supplemental plat of Township 10 South, Range 58 West, Seward Meridian, Alaska, segregates the area of U.S. Survey No. 9235 from the area of original Tract A. This revision creating Tract B is based upon the plat of Township 10 South, Range 58 West, Seward Meridian, Alaska, accepted January 11, 1973, and the plat of U.S. Survey No. 9235 accepted September 19, 1989.

Acceptance of this survey does not purport to transfer any interest in submerged lands to which the State of Alaska is entitled under the Equal Footing Doctrine and Section 6(m) of the Alaska Statehood Act, P.L. 85-508, notwithstanding the use, location, or absence of meander lines to depict water bodies.

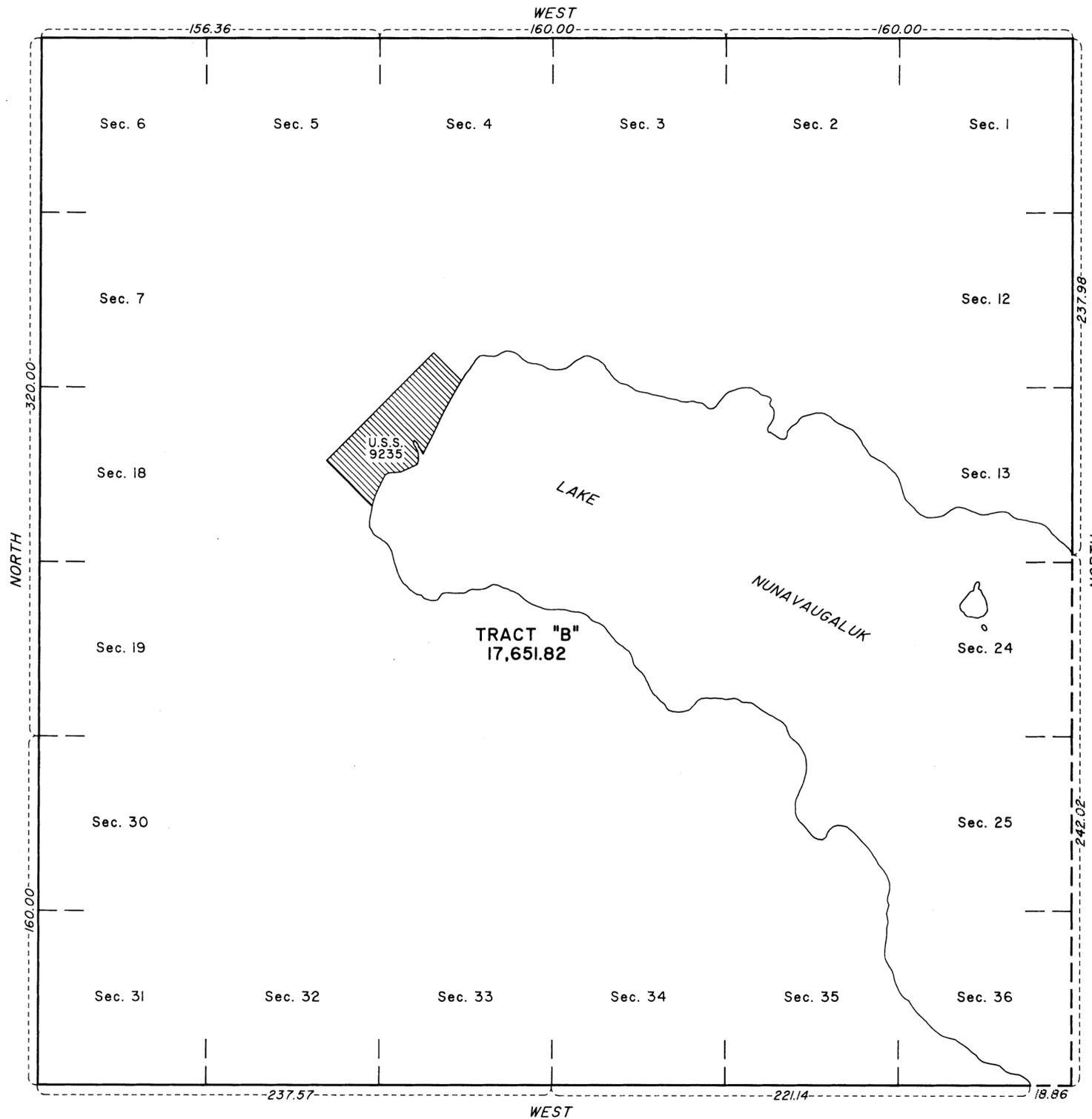
UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
Anchorage, Alaska

This supplemental plat is based upon the official records and, having been correctly prepared in accordance with the regulations of this Bureau, is hereby accepted.

For the Director

*Daniel W. Wells* June 11, 1991  
(acting) Date

Deputy State Director for Cadastral Survey,  
Alaska



**ORIGINAL**

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

507

**FIELD NOTES**

OF

THE SURVEY OF

THE WEST AND NORTH BOUNDARIES

OF

TOWNSHIP 10 SOUTH, RANGE 58 WEST

[Lined area for field notes]

Of the SEWARD Meridian,

In the State of ALASKA

**EXECUTED BY**

FREDERICK W. WARD, SUPERVISORY CADASTRAL SURVEYOR

AND SUPPLEMENTAL SPECIAL INSTRUCTIONS DATED MAY 9, 1966 and June 11, 1962

Under special instructions dated APRIL 10, 1962, which provided for the surveys & June 12, 1962

included under Group Number 128, approved APRIL 18, 1962 & MAY 10, 1966,

and assignment instructions dated MAY 17, 1962  
JUNE 12, 1967

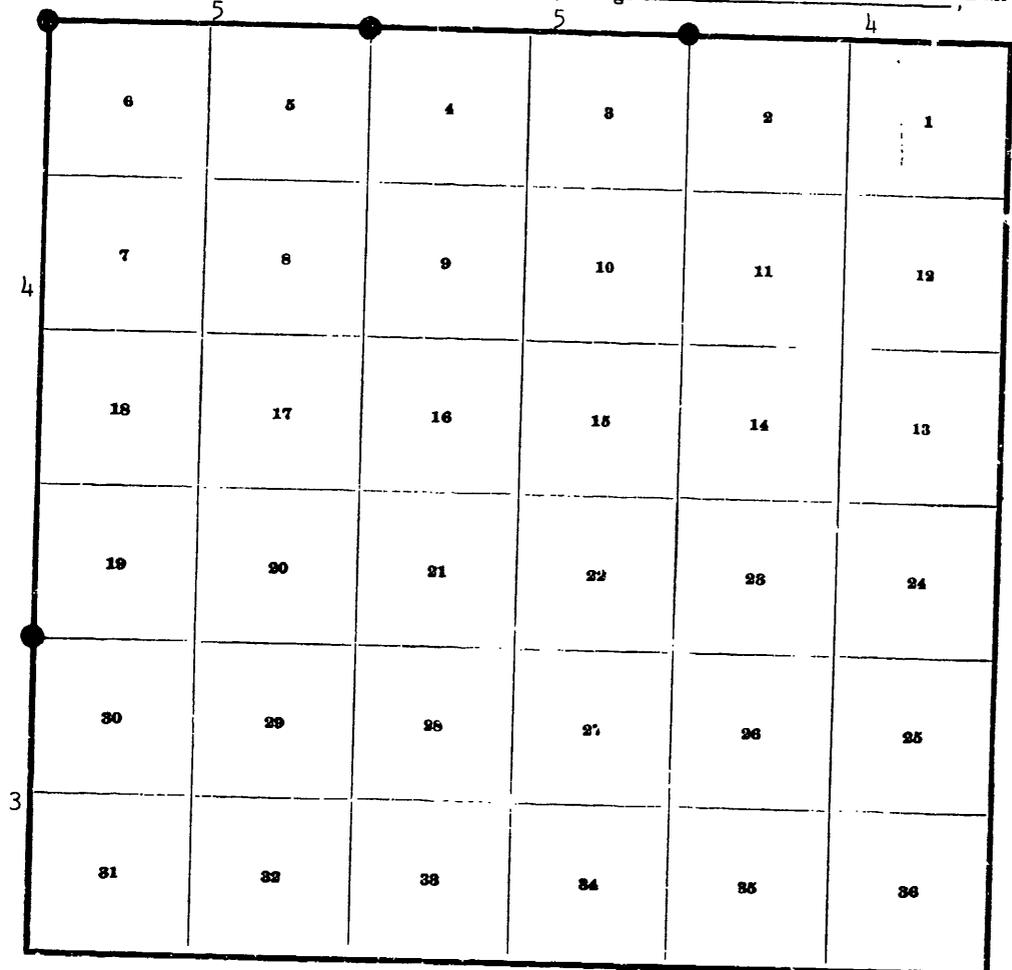
Survey commenced JUNE 28, 1966

Survey completed AUGUST 27, 1967

503

# INDEX DIAGRAM

Township 10 South, Range 58 West, Seward Meridian



● Monument set by electronic survey

NOTE: Control used and established for this survey is described on pages 2, 3 and 6

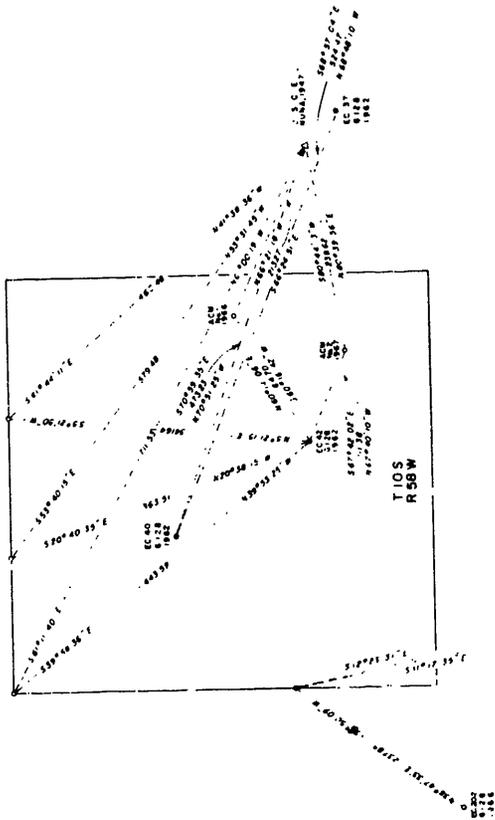
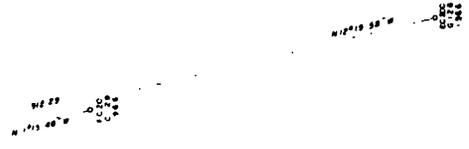


DIAGRAM SHOWING HORIZONTAL CONTROL ESTABLISHED FOR THE SURVEY OF TOWNSHIP 10 SOUTH RANGE 58 WEST OF THE SEWARD MERIDIAN, ALASKA.



- IRON GLASS POST WITH BRASS CAP
- BRASS CAPPED IRON POST
- COPPERFIELD MONUMENT



TOWNSHIP 10 SOUTH, RANGE 58 WEST, S.M.

CHAINS

This survey establishes the West and North boundaries of Township 10 South, Range 58 West, S.M.

Corners in this survey were established by the following method.

Using the Airborne Control System (ABC), control stations established by U.S. Coast and Geodetic Survey, U.S. Geological Survey, U.S. Army Corps of Engineers, or the Bureau of Land Management, were occupied, and using pre-computed angles, or an angle and a distance, a helicopter was positioned over the predetermined location to be monumented. When only one control station could be occupied, an additional independent set of distance and angular measurements were made. A marker was dropped at this location. Then by hovering at the height necessary to provide line of sight to the control stations, the helicopter served as an aerial platform for the electronic distance measuring equipment and was equipped with a beacon to provide a target for angular measurements. The helicopter was maintained in position over the ground point through the use of a sight, which provides a vertical reference for the pilot. Angular measurements were made using theodolites and distance measurements were made with electronic distance measuring instruments, which were in good condition and in proper adjustment at all times during the survey. Since vertical angles were measured from only one end of the line, the difference attributable to the curvature of the earth and refraction was taken into account.

Electronic measurements and computation were made with the foot unit of measure and where distances are given in chains in the field record, they have been converted from feet. Horizontal distances, as given in these field notes, were converted from slope measurements and reduced to their sea level equivalents.

Using a modification of the Airborne Control System, in which three control stations were occupied and the position of the monument was determined by three point intersections, using linear measurements only, bearings recorded as measured were computed.

NO LINE OF SIGHT WAS ACTUALLY SURVEYED ON THE GROUND BETWEEN CONSECUTIVE MONUMENTS. Monuments were established at precomputed positions and the distances and bearings between such monuments were determined by calculation. The field note record is prepared in the conventional manner, from monument to monument, along the lines of the boundaries being established. This is done to lend continuity to the field note record.

The initial point of the Seward Meridian, Latitude 60° 07' 36.950" North, Longitude 149° 21' 26.008" West, North American Datum, 1927, was used to control the geodetic position for the rectangular system survey established by this survey.

All coordinate positions, given in these notes, are based upon the Alaska State Plane Coordinate System.

The word "COPPERWELD," as used in these notes, is a trade name for a 9/16 inch diameter, copper-coated steel rod, with brass cap.

The fiberglass markers, referred to in these field notes, are conical, 25 inches diameter at the base, 4 inches

## TOWNSHIP 10 SOUTH, RANGE 58 WEST, S.M.

CHAINS

diameter, at the top and 24 inches in height; they are open at the top and base and are orange in color.

The magnetic declination was not measured. Information from recent mapping sources indicates an average of 20° East.

The following geodetic positions, used as control for this survey, are from the publications of data by the establishing agency:

U.S.C.E. triangulation station  
"NUNA, 1947"

Lat. 59° 17' 05.29" N., Long. 158° 54' 20.42" W.  
(Y = 1,931,683 ft., X = 330,649 ft., Zone 6)

The following monuments were established as control stations for previous surveys as shown:

"EC 42 G128 1962"

Lat. 59° 17' 07.67" N., Long. 159° 01' 30.41" W.  
(Y = 1,932,253 ft., X = 308,316 ft., Zone 6)

Described in the field notes of T. 12 S., R. 56 W.

"EC 200 G128 1966"

Lat. 59° 07' 41.45" N., Long. 159° 03' 24.92" W.  
(Y = 1,874,871 ft., X = 301,458 ft., Zone 6)

Described in the field notes of T. 8 S., R. 58 W.

"EC 201 G128 1966"

Lat. 59° 12' 00.94" N., Long. 159° 05' 28.01" W.  
(Y = 1,901,314 ft., X = 295,466 ft., Zone 6)

Described in the field notes of T. 8 S., R. 58 W.

"EC 202 G128 1966"

Lat. 59° 15' 16.98" N., Long. 159° 10' 33.51" W.  
(Y = 1,921,483 ft., X = 279,911 ft., Zone 6)

Described in the field notes of T. 8 S., R. 58 W.

"EC 37 G128 1962"

Lat. 59° 16' 43.01" N., Long. 158° 53' 27.61" W.  
(Y = 1,929,389 ft., X = 333,359 ft., Zone 6)

Described in the field notes of T. 12 S., R. 56 W.

TOWNSHIP 10 SOUTH, RANGE 58 WEST, S.M.

CHAINS

The following monument was established as a control station in the execution of this survey:

Occupying U.S.C.E. triangulation station "NUNA 1947," turn a true forward bearing of N. 70° 51' 25" W., (back bearing S. 70° 59' 35" E.) and measure a dist. of 31,253 ft., (473.23 chs.) to a point; and occupying BLM control station "EC 37 G128 1962," turn a true forward bearing of N. 68° 48' 10" W. (back bearing S. 68° 57' 04" E.) and measure a dist. of 34,615 (524.47 chs.) to the same point at:

Lat. 59° 18' 45.88" N., Long. 159° 03' 49.37" W.  
(Y = 1,942,335 ft., X = 301,258 ft., Zone 6)

Set a copperweld monument, 36 ins. long, 6 ins. in the ground, with brass cap mkd.

EC 40  
G128  
1962

from which

A spruce, 5 ins. diam., bears N. 45° W.,  
161 lks. dist., mkd. EC 40 G128 PT.

A spruce, 3 ins. diam., bears N. 34° W.,  
222 lks. dist., mkd. X BT.

This monument is situated in tall grass, near the mouth of a stream flowing into the NW. end of Lake Nunavaugaluk. It is about 40 ft. from the line of mean high water, and about 15 chs. S. of a cabin.

WEST BOUNDARY, T. 10 S., R. 58 W.

Beginning at the cor. of Tps. 10 and 11 S., Rs. 58 and 59 W., monumented with an iron post, firmly set, mkd. and witnessed as described in the field note record of T. 11 S., R. 58 W.

NORTH, bet. Rs. 58 and 59 W. through T. 10 S.

160.00

Point for the cor. of secs. 19, 30, 24, and 25, thus established:

Occupying BLM control station "EC 202 G128 1966," turn a true forward bearing of N. 36° 47' 33" E., (back bearing S. 36° 50' 09" W.) and measure a dist. of 15,698 ft., (237.85 chs.) to a point; and occupying BLM control station "EC 201 G128 1966," turn a true forward bearing of N. 11° 15' 48" W., (back bearing S. 11° 17' 35" E.) and measure a dist. of 33,109 ft., (501.65 chs.) to the same point; and occupying BLM control station "EC 200 G128 1966," turn a true forward bearing of N. 12° 19' 58" W., (back bearing S. 12° 23' 31" E.) and measure a dist. of 60,211 ft., (912.29 chs.) to the same point at:

Lat. 59° 17' 20.76" N., Long. 159° 07' 32.51" W.  
(Y = 1,933,886 ft., X = 289,332 ft., Zone 6)

Set a fiberglas post, 28 ins. long, 2 1/2 ins. diam., 20 ins. in the ground, with brass cap mkd.

## TOWNSHIP 10 SOUTH, RANGE 58 WEST, S.M.

CHAINS

T10S	
R59W	R58W
S24	S19
S25	S30
1966	

Dig pits, 18 x 18 x 12 ins., N., E., S., and W. of post, 3 ft. dist.

Set a fiberglas marker over and wired to the monument.

NORTH, bet. Rs. 58 and 59 W., T. 10 S., beginning new dist.

320.00

Point for the cor. of Tps. 9 and 10 S., Rs. 58 and 59 W., thus established:

Occupying BLM control station "EC 42 G128 1962," turn a true forward bearing of N. 39° 53' 25" W., (back bearing S. 39° 58' 36" E.) and measure a dist. of 29,277 ft., (443.59 chs.) to a point; and occupying U.S.C.E. triangulation station "NUNA, 1947," turn a true forward bearing of N. 61° 00' 19" W., (back bearing S. 61° 11' 40" E.) and measure a dist. of 46,961 ft., (711.53 chs.) to the same point at:

Lat. 59° 20' 48.79" N., Long. 159° 07' 32.51" W.  
(Y = 1,955,002 ft., X = 289,889 ft., Zone 6)

Set an iron post, 28 ins. long, 2 1/2 ins. diam., 22 ins. in the ground, with brass cap mkd.

T9S	
R59W	R58W
S36	S31
S	S6
T10S	
1967	

Dig pits, 18 x 18 x 12 ins., N., E., S., and W. of post, 3 ft. dist.

Set a fiberglas marker over and wired to the monument.

NORTH BOUNDARY, T. 10 S., R. 58 W., S.M.

From the cor. of Tps. 9 and 10 S., Rs. 57 and 58 W., not monumented, witnessed as described in the field note record of T. 10 S., R. 57 W.

WEST, bet. Tps. 9 and 10 S., R. 58 W.

160.00

Point for the cor. of secs. 2, 3, 34 and 35, thus established:

Occupying U.S.C.E. triangulation station "NUNA, 1947," turn a true forward bearing of N. 41° 38' 36" W., (back bearing S. 41° 44' 11" E.) and measure a dist. of 30,392 ft., (460.48 chs.) to a point; and occupying BLM control station "EC 42 G128 1962," turn a true forward bearing of N. 5° 21' 15" E., (back bearing S. 5° 21' 50" W.) and measure a dist. of 22,548 ft., (341.64 chs.) to the same point at:

TOWNSHIP 10 SOUTH, RANGE 58 WEST, S.M.

CHAINS

Lat. 59° 20' 48.79" N., Long. 159° 00' 59.84" W.  
(Y = 1,954,666 ft., X = 310,765 ft., Zone 6)

Set an iron post, 28 ins. long, 2 1/2 ins. diam., 26 ins. in the ground, with brass cap mkd.

T9S  
R58W  
S34 | S35  
S3 | S2  
T10S  
1966

Dig pits, 18 x 18 x 12 ins., in each section, 3 ft. dist.

Set a fiberglas marker over and wired to the monument.

WEST, bet. Tps. 9 and 10 S., R. 58 W., beginning new dist.

160.00

Point for the cor. of secs. 4, 5, 32 and 33, thus established:

Occupying U.S.C.E. triangulation station "NUNA, 1947," turn a true forward bearing of N. 53° 31' 45" W., (back bearing S. 53° 40' 15" E.) and measure a dist. of 38,246 ft., (579.48 chs.) to a point; and occupying BLM control station "EC 42 G128 1962," turn a true forward bearing of N. 20° 38' 15" W., (back bearing S. 20° 40' 35" E.) and measure a dist. of 23,992 ft., (363.51 chs.) to the same point at:

Lat. 59° 20' 48.79" N., Long. 159° 04' 13.49" W.  
(Y = 1,954,831 ft., X = 300,207 ft., Zone 6)

Set an iron post, 28 ins. long, 2 1/2 ins. diam., 26 ins. in the ground, with brass cap mkd.

T9S R58W

S32 | S33  
S5 | S4  
T10S  
1966

Dig pits, 18 x 18 x 12 ins., in each sec., 3 ft. dist.

Set a fiberglas marker over and wired to the monument.

WEST, bet. Tps. 9 and 10 S., R. 58 W., beginning new dist.

80.00

Point for the cor. of secs. 5, 6, 31 and 32, not monumented.

156.36

The cor. of Tps. 9 and 10 S., Rs. 58 and 59 W., hereinbefore described.

AUXILIARY CONTROL MONUMENTS

The following Auxiliary Control Monuments were established in this township.

## TOWNSHIP 10 SOUTH, RANGE 58 WEST, S.M.

CHAINS

Occupying U.S.C.E. triangulation station "NUNA, 1947," turn a true forward bearing of N. 66° 21' 18" W., (back bearing S. 66° 24' 51" E.) and measure a dist. of 14,076 ft., (213.27 chs.) to a point; and occupying BLM control station "EC 42 G128 1962," turn a true forward bearing of N. 60° 14' 06" E., (back bearing S. 60° 16' 42" W.) and measure a dist. of 10,870 ft., (164.70 chs.) to the same point at:

Lat. 59° 18' 00.79" N., Long. 158° 58' 28.70" W.  
(Y = 1,937,503 ft., X = 317,833 ft., Zone 6)

Set an iron post, 28 ins. long, 2 1/2 ins. diam., 25 ins. in the ground, with brass cap mkd.

ACM  
No 1

T10S R58W  
1966

Dig pits, 18 x 18 x 12 ins., N., E., S., and W. of post, 3 ft. dist.

Set a fiberglas marker over and wired to the monument.

This monument is situated on the westerly side of a small island in Lake Nunavaugaluk.

Occupying BLM control station "EC 42 G128 1962," turn a true forward bearing of S. 67° 42' 02" E., (back bearing N. 67° 40' 10" W.) and measure a dist. of 7,351 ft., (111.38 chs.) to a point; and occupying U.S.C.E. triangulation station "NUNA, 1947," turn a true forward bearing of S. 80° 44' 13" W., (back bearing N. 80° 39' 56" E.) and measure a dist. of 15,749 ft., (238.62 chs.) to the same point at:

Lat. 59° 16' 40.18" N., Long. 158° 59' 19.52" W.  
(Y = 1,929,360 ft., X = 315,073 ft., Zone 6)

Set an iron post, 28 ins. long, 2 1/2 ins. diam., 24 ins. in the ground, with brass cap mkd.

ACM  
No 2

T10S  
R58W  
1967

from which

A spruce, 8 ins. diam., bears S. 47° E.,  
44 lks. dist., mkd. T10S R58W ACM2 BT.

A spruce, 6 ins. diam., bears N. 10° W.,  
82 lks. dist., mkd. T10S R58W ACM2 BT.

Set a fiberglas marker over and wired to the monument.

TOWNSHIP 10 SOUTH, RANGE 58 WEST, S.M.

CHAINS

AREA

Gross Area - - - - - 22,894.32 Acres

Exclusions:

Lake Nunavaugaluk - - - - - 5,087.50 "

Net Area, Tract "A" - - - - - 17,806.82 Acres

The gross area surveyed embraces the entire township including Lake Nunavaugaluk.

The township, excluding the Lake Nunavaugaluk, has been designated Tract "A" for legal description purposes.

GENERAL DESCRIPTION

This survey lies at the northerly end of Lake Nunavaugaluk. The elevations range from 30 to 2000 feet above sea level, with the low land being adjacent to bodies of water.

There are no major rivers. The vegetation is comprised of moss, grasses, low alder, willow and berry brush, and birch and spruce timber. The soil is generally second rate.

Access at the time of survey was by helicopter and fixed-wing amphibious aircraft. There are no improved roads.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FIELD ASSISTANTS

NAMES	CAPACITY
Jerome C. Ives	Supervisory Cadastral Surveyor
Henry J. Grimmonpre'	" " "
John M. Baldessari	" " "
Wallace E. Smith	" " "
Donald L. Dart	Cadastral Surveyor
Louis L. Doerr	Survey System Specialist
James A. Rhea	Surveying Technician
Joseph Dombrowski	" "
Albert Bianchi	" "
Henry Ahgupuk	" "
Robert Pond	Cartographic Surveying Aid
William Andrianoff	Surveying Aid
Jerome Pape	" "
Victor R. Hudson	" "
Noel B. Monson	" "
Danny K. Dauer	" "
Gregory K. Williams	" "
William F. Dennis	" "
Donald B. Means	" "
Bernard J. Jacomy	" "
Michael J. Kelly	" "
William F. Jassy	" "
Harold R. Komarek	" "
Frank Baxter	" "
Harold Henry	" "
James Scott, Jr.	" "

## CERTIFICATE OF SURVEY

(I) ~~(was)~~, Frederick W. Ward

, HEREBY

CERTIFY upon honor that, in pursuance of special instructions bearing date of the 10th day and Supplemental Special Instructions dated May 9, 1966 and June 11, 1962 of April, 19 62 (I) ~~(was)~~ have surveyed the West and North boundaries of Township 10 South, Range 58 West.

of the Seward Meridian, in the State of Alaska, which are represented in the foregoing field notes as having been executed by (me), ~~(us)~~ and under (my) ~~(our)~~ direction; and that said survey has been made in strict conformity with said special instructions, the Manual of Instructions for the Survey of the Public Lands of the United States, and in specific manner described in the foregoing field notes.

May 18, 1972  
(Date)

Frederick W. Ward  
(Cadastral Surveyor)

Frederick W. Ward, Supervisory Cadastral Surveyor

(Date)

(Cadastral Surveyor)

## CERTIFICATE OF APPROVAL

SUBMITTED FOR APPROVAL  
Date SEP 13 1972

BUREAU OF LAND MANAGEMENT  
Washington, D.C.

The foregoing field notes of the survey of the West and North boundaries of Township 10 South, Range 58 West, Seward Meridian.

executed by Frederick W. Ward, Supervisory Cadastral Surveyor having been critically examined and found correct are hereby approved.

JAN 11 1973  
(Date)

Clayton L. Jensen  
(Chief, Division of Cadastral Survey)

## CERTIFICATE OF TRANSCRIPT

I CERTIFY That the foregoing transcript of the field notes of the above-described surveys in \_\_\_\_\_, is a true copy of the original field notes.

(Date)

(Chief, Division of Cadastral Survey) GPO 249-226