FIELD NOTES
OF
ADDITIONAL MONUMENTATION
IN
TOWNSHIPS 23 AND 24 NORTH,
RANGES 5 AND 6 WEST

Of the Seward Meridian,
In the State of Alaska

EXECUTED BY
FREDERICK W. WARD, SUPERVISORY CADASTRAL SURVEYOR

Supplemental Special Instructions dated MAY 15 and AUGUST 15, 1963,
Under special instructions dated JUNE 6, 1960, which provided for the surveys
included under Group Number 100, approved JUNE 6, 1960, MAY 15 & AUGUST 15,
and assignment instructions dated AUGUST 15, 1963, and
MAY 15, 1964.

Survey commenced AUGUST 16, 1963
Survey completed JULY 22, 1964
This survey establishes additional monuments in Townships 23 and 24 North, Ranges 5 and 6 West, Seward Meridian.

Corners in this survey were established at their precomputed positions by the following method:

Using the Airborne Control System (ABS), 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 precomputed 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 computations 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.

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

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

The iron posts, 2½ ins. diam., referred to in these field notes, are filled with concrete unless otherwise stated.

The magnetic declination was not measured. Information from recent mapping sources indicates an average of 27½° E.

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

U.S. Coast and Geodetic Survey triangulation station "TALKEETNA 1923"

Lat. 62° 17' 56.74" N., Long. 150° 06' 12.26" W.

($Y = 3,032,395$ ft., $X = 482,399$ ft., Zone 4)
TPS. 23 AND 24 N., RS. 5 AND 6 W., S.M.

U.S. Coast and Geodetic Survey triangulation station "SUNSHINE 1923"
Lat. 62° 09' 45.80" N., Long. 149° 41' 25.90" W.
(Y = 2,982,647 ft., X = 552,914 ft., Zone 4)

U.S. Coast and Geodetic Survey triangulation station "MONTANA 1922"
Lat. 62° 04' 48.64" N., Long. 149° 40' 29.91" W.
(Y = 2,952,481 ft., X = 555,725 ft., Zone 4)

U.S. Coast and Geodetic Survey triangulation station "KASH 1922"
Lat. 61° 59' 20.61" N., Long. 149° 42' 50.82" W.
(Y = 2,919,135 ft., X = 549,161 ft., Zone 4)

The following monument was established as a control station for previous survey as shown:

BLM control station "T25N R8W S6 1960"
Lat. 62° 17' 28.65" N., Long. 150° 49' 01.39" W.
(Y = 3,030,406 ft., X = 360,894 ft., Zone 4)

Described in the official record of Tps. 23 and 24 N., Rs. 5 and 6 W., S.M.

The following monuments are established in addition to those included in the official record of the 1962 survey of Tps. 23 and 24 N., Rs. 5 and 6 W., thus established.

Point for the cor. of secs. 2, 3, 34, and 35, bet. Tps. 23 and 24 N., R. 5 W., thus established.

Occupying BLM control station "T25N R8W S6 1960", turn a true forward bearing of S. 61° 23' 12" E. (back bearing N. 60° 47' 57" W.) and measure a distance of 129,603 ft. (1,963.68 chs.) to a point at:

Lat. 62° 07' 11.84" N., Long. 150° 09' 09.46" W.
(Y = 2,966,915 ft., X = 473,866 ft., Zone 4)

Set an iron post, 28 ins. long, 2½ ins. diam., 24 ins. in the ground, with brass cap mkd.

T24N
R5W
S24 | S35
S3 | S2
T23N
1964

From which

A spruce, 6 ins. diam., bears N. 28° E.,
61 lks. dist., mkd. T24N R5W S35 BT.

A spruce, 7 ins. diam., bears S. 75° E.,
139 lks. dist., mkd. T23N R5W S2 BT.

A spruce, 7 ins. diam., bears S. 40° W.,
159 lks. dist., mkd. T23N R5W S3 BT.
TPS. 23 AND 24 N., RS. 5 AND 6 W., S.W.

CHAIN:

A birch, 9 ins. diam., bears N. 51° W.,
62 lks. dist., mkd. T24N R5W S34 BT.

Set a 55 gal. metal barrel, painted orange, N. of the
iron post, 7 lks. dist., at the center of a cleared area,
50 ft. in diam.

This monument is approximately 1 mile W. of the Susitna
River, and 45 lks. NW. of a small stream.

Point for the cor. of secs. 3, 4, 33, and 34, bet. Tps.
23 and 24 N., R. 5 W., thus established.

Occupying U.S.C. & G.S. triangulation station "TALKEETNA
1923", turn a true forward bearing of S. 11° 49' 20" W.
(back bearing N. 11° 45' 04" E.) and measure a distance
of 66,914 ft. (1,013.85 chs.) to a point; and occupying
U.S.C. & G.S. triangulation station "MONTANA 1922", turn
a true forward bearing of N. 80° 17' 54" W. (back bearing
S. 80° 44' 52" E.) and measure a distance of 88,336 ft.
(1,338.42 chs.) to the same point at:

Lat. 62° 07' 11.84" N., Long. 150° 11' 00.47" W.
(Y = 2,466.929 ft., X = 466.587 ft., Zone 4)

Set an iron post, 28 ins. long, 2½ ins. diam., 22 ins.
in the ground, with brass cap mkd.

<table>
<thead>
<tr>
<th></th>
<th>T24N</th>
<th>R5W</th>
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<tbody>
<tr>
<td>S34</td>
<td>S34</td>
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<td>S33</td>
<td>T23N</td>
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<tr>
<td>S24</td>
<td>1964</td>
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</tr>
</tbody>
</table>

from which

A spruce, 8 ins. diam., bears N. 45° E.,
228 lks. dist., mkd. T24N R5W S34 BT.

A spruce, 4 ins. diam., bears S. 40° E.,
81 lks. dist., mkd. X BT.

A spruce, 9 ins. diam., bears S. 20° W.,
84 lks. dist., mkd. T23N R5W S4 BT.

A spruce, 6 ins. diam., bears N. 65° W.,
51 lks. dist., mkd. T24N R5W S33 BT.

Set a 55 gal. metal barrel, painted orange, N. of the
iron post, 8 lks. dist., at the center of a cleared area,
50 ft. in diam.

This monument is in a marsh area, approximately 3 chs.
S. of a small creek.

Point for the cor. of secs. 13, 18, 19, and 24, T. 23 N.,
bet. Rs. 5 and 6 W., thus established.

Occupying U.S.C. & G.S. triangulation station "MONTANA
1922", turn a true forward bearing of S. 89° 32' 34" W.
(back bearing N. 89° 00' 47" E.) and measure a distance
of 102,794 ft. (1,557.48 chs.) to a point; and occupying
TPS. 23 AND 24 N., RS. 5 AND 6 W., S.M.

U.S.C. & G.S. triangulation station "KASH 1922", turn a true forward bearing of N. 71° 20' 42" W. (back bearing S. 71° 50' 23" E.) and measure a distance of 101,406 ft. (1,536.45 chs.) to the same point at:

Lat. 62° 04' 35.89" N., Long. 150° 16' 27.83" W.  
(Y = 2,951,145 ft., X = 452,950 ft., Zone 4)

Set an iron post, 28 ins. long, 2½ ins. diam., 26 ins. in the ground, with brass cap mkd.

T23N  
R6W S18  
S13 S19  
1963

from which

A birch, 8 ins. diam., bears N. 48° E.,  
67 lks. dist., mkd. T23N R5W S18 BT.

A spruce, 6 ins. diam., bears S. 38° E.,  
55 lks. dist., mkd. T23N R5W S19 BT.

A spruce, 7 ins. diam., bears S. 34° W.,  
57 lks. dist., mkd. T23N R6W S24 BT.

A spruce, 7 ins. diam., bears N. 57° W.,  
32 lks. dist., mkd. T23N R6W S13 BT.

Set a 55 gal. metal barrel, painted orange, E. of the iron post, 15 lks. dist., at the center of a cleared area, 50 ft. in diam.

This monument is in heavy spruce timber, 7.50 chs. E. of a small creek.

Point for the cor. of Tps. 23 and 24 N., Rs. 5 and 6 W., thus established.

Occupying U.S.C. & G.S. triangulation station "MONTANA 1922", turn a true forward bearing of N. 81° 40' 31" W. (back bearing S. 82° 12' 18" E.) and measure a distance of 103,737 ft. (1,571.77 chs.) to a point; and occupying U.S.C. & G.S. triangulation station "SUNSHINE 1923", turn a true forward bearing of S. 81° 21' 46" W. (back bearing N. 80° 50' 47" E.) and measure a distance of 101,127 ft. (1,532.23 chs.) to the same point at:

Lat. 62° 07' 11.84" N., Long. 150° 16' 27.83" W.  
(Y = 2,966,984 ft., X = 453,017 ft., Zone 4)

Set an iron post, 28 ins. long, 2½ ins. diam., 26 ins. in the ground, with brass cap mkd.

T24N  
R6W S31  
S26 S31  
1964

from which

A birch, 8 ins. diam., bears N. 86° E.,  
52 lks. dist., mkd. T24N R5W S31 BT.
A spruce, 6 ins. diam., bears S. 63° E., 80 lks. dist., mkd. T23N R5W S6 BT.

A spruce, 7 ins. diam., bears S. 7° W., 92 lks. dist., mkd. T23N R6W S1 BT.

A spruce, 10 ins. diam., bears N. 27° W., 147 lks. dist., mkd. T24N R6W S36 BT.

Set a 55 gal. metal barrel, painted orange, S. of the iron post, 5 lks. dist., at the center of a cleared area, 50 ft. in diam.

This monument is 70 lks. E. of the edge of a small lake, and in dense spruce and birch timber.

Point for the cor. of secs. 13, 18, 19, and 24, T. 24 N., bet. Rs. 5 and 6 W., thus established.

Occupying U.S.C. & G.S. triangulation station "TALKEETNA 1923", turn a true forward bearing of S. 30° 30' 23" W. (back bearing N. 30° 21' 18" E.) and measure a distance of 57,590 ft. (872.70 chs.) to a point; and occupying U.S.C. & G.S. triangulation station "MONTANA 1922", turn a true forward bearing of N. 73° 14' 41" W. (back bearing S. 73° 46' 29" E.) and measure a distance of 107,042 ft. (1,621.85 chs.) to the same point at:

Lat. 62° 09' 47.79" N., Long. 150° 16' 27.82" W.  
(Y = 2,982,822 ft., X = 453,084 ft., Zone 4)

Set an iron post, 28 ins. long, 2½ ins. diam., 24 ins. in the ground, with brass cap mkd.

T24N  
R6W R5W  
S13 S18  
S24 S19  
1964

from which

A spruce, 5 ins. diam., bears N. 46° E., 225 lks. dist., mkd. T24N R5W S18 BT.

A spruce, 3 ins. diam., bears S. 64° E., 155 lks. dist., mkd. T24N R5W S19 BT.

A spruce, 5 ins. diam., bears S. 27° W., 240 lks. dist., mkd. T24N R6W S24 BT.

A spruce, 7 ins. diam., bears N. 40° W., 224 lks. dist., mkd. T24N R6W S13 BT.

Set a 55 gal. metal barrel, painted orange, N. of the iron post, 8 lks. dist.

This monument is in an open marsh area, with scattered spruce timber, and is approximately 15 chs. S. of a small lake.

Point selected for the witness cor. of secs. 3, 4, 33, and 34, bet. Tps. 23 and 24 N., R. 6 W., thus established.
Occupying U.S.C. & G.S. triangulation station "TALKEETNA 1923", turn a true forward bearing of S. 34° 45' 45" W. (back bearing N. 34° 31' 40" E.) and measure a distance of 79,620 ft. (1,206.36 chs.) to a point; and occupying U.S.C. & G.S. triangulation station "SUNSHINE 1923", turn a true forward bearing of S. 82° 37' 24" W. (back bearing N. 82° 01' 26" E.) and measure a distance of 117,066 ft. (1,773.73 chs.) to the same point at:

Lat. 62° 07' 11.84" N., Long. 150° 22' 06.66" W.  
(Y = 2,967,064 ft., X = 436,902 ft., Zone 4)

Set an iron post, 28 ins. long, 2½ ins. diam., 24 ins. in the ground, with brass cap mkd.

WC
T24N
R6W.
533
53
T23N
1964

from which

A spruce, 6 ins. diam., bears N. 32° E., 28 lks. dist., mkd. X BT.

A spruce, 7 ins. diam., bears S. 76° E., 22 lks. dist., mkd. X BT.

A birch, 8 ins. diam., bears S. 27° W., 49 lks. dist., mkd. WC T23N R6W 54 BT.

A birch, 8 ins. diam., bears N. 72° W., 75 lks. dist., mkd. WC T24N R6W 533 BT.

The true point for the cor. bears East, 72 lks. dist.

Set a 55 gal. metal barrel, painted orange, E. of the iron post, 129 lks. dist., at the center of a cleared area, 50 ft. in diam.

This monument is near the edge of dense spruce and birch timber, W. of the shore of a small lake.
<table>
<thead>
<tr>
<th>NAMES</th>
<th>CAPACITY</th>
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<tbody>
<tr>
<td>Jerry D. Abercrombie</td>
<td>Supervisory Cadastral Surveyor</td>
</tr>
<tr>
<td>John M. Baldessari</td>
<td>Supervisory Cadastral Surveyor</td>
</tr>
<tr>
<td>Joseph Dombrowski</td>
<td>Supervisory Surveying Technician</td>
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<tr>
<td>John P. Lambe</td>
<td>Cartographic Compilation Aid</td>
</tr>
<tr>
<td>Arnold E. Oskolkoff</td>
<td>Surveying Technician</td>
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<tr>
<td>Franklin S. Baxter</td>
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<td>Gilbert Nostrand</td>
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<td>James P. Scott</td>
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<td>Harold K. Henry</td>
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<td>Harry J. Torbert</td>
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CERTIFICATE OF SURVEY

I, Frederick W. Ward, hereby certify upon honor that,
in pursuance of special instructions bearing date of the 6th day of June, 1960,
and Supplemental Special Instructions dated May 15 and August 15, 1963,
I have completed additional monumentation in Townships 23 and 24 North,
Ranges 5 and 6 West,

of the Seward Meridian, in the State of Alaska, which
are represented in the foregoing field notes as having been executed by me and under my 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.

(Date)

Frederick W. Ward
Supervisory Cadastral Surveyor

(Date)

(Cadastral Surveyor)

(Cadastral Surveyor)

CERTIFICATE OF APPROVAL

SUBMITTED FOR APPROVAL
Date March 2, 1966

Bureau of Land Management,
Washington, D. C.

The foregoing field notes of the additional monumentation in Townships 23 and 24
North, Ranges 5 and 6 West, Seward Meridian,

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

JUN 9 1966
(Date)

(Chief, Division of Engineering)

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 Engineering)