

Standard
BOOKS

BOOK 2525

FIELD NOTES

OF THE SURVEY OF THE

3rd Guide Meridian East through Tps 30 N
bet. Rs 12 and 13 East

Of the Gila and Salt River Base and Meridian,

in the Territory of Arizona

EXECUTED
AS SURVEYED BY

Van L. White, U.S. Manuilmann United States Deputy Surveyor,

Special Instructions from the Commissioner of the General Land Office

Under his Contract No. _____, dated Oct. 2nd 1907 and May 15th 1908

Survey commenced February 8th, ~~190~~ 1911

Survey completed February 10th, 1901/11

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NAMES AND DUTIES OF ASSISTANTS.

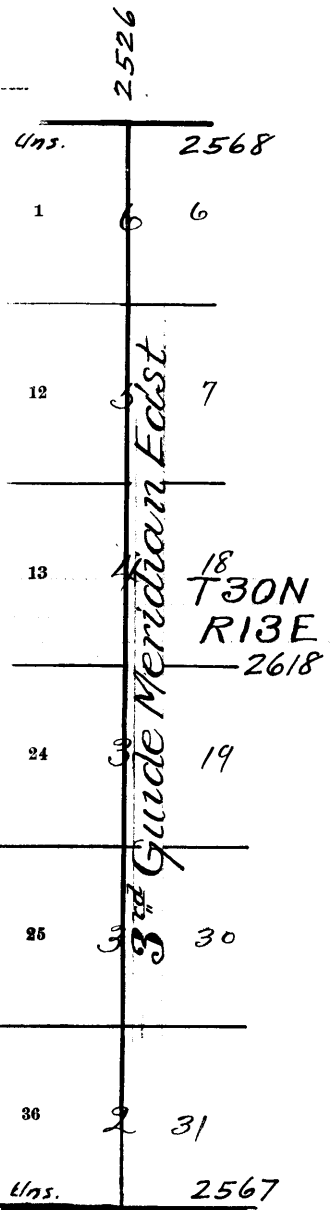
<u>T. Y. White</u>	<u>Chairman</u>
<u>Richard L. Shumway</u>	<u>Chairman</u>
<u>George B. Seig</u>	<u>Chairman</u>
<u>Nelson Polacca</u>	<u>Chairman</u>
<u>Harry Keyope</u>	<u>Wardman</u>
<u>William R. Carson</u>	<u>Flagman</u>

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INDEX DIAGRAM.

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PRELIMINARY OATHS OF ASSISTANTS.

WE, Van L. White, Richard L. Shumway and George B. Seig^{and} Nelson Polacca
do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain upon even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

3rd Guide Meridian C. through Tps 30 N. bet Rs 12 and 13 C.
George B. Seig and Van L. White of the G. & S. R. Base & Mer. Arizona, Chainmen.
Nelson Polacca and Richard L. Shumway, Chainmen.

Subscribed and sworn to before me this 8th
day of February 1911



Van L. White
U.S. Transitman

I, Harry Keyop and
do solemnly swear that I will well and truly perform the duties of moundman in the establishment of corners, according to the instructions given me to the best of my skill and ability, in the survey of

3rd Guide Meridian C. through Tps 30 N. bet Rs 12 and 13 C.
of the G. & S. R. Base & Mer. Arizona.
Moundman.

Harry Keyop, Moundman.

Subscribed and sworn to before me this 8th
day of February 1911



Van L. White
U.S. Transitman

~~WE, _____ and _____
do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of~~

~~_____ Axman.
_____ Axman.~~

~~Subscribed and sworn to before me this _____
day of _____, 190~~



I, William R. Carson, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of 3rd Guide Meridian C. through Tps 30 N. bet Rs 12 and 13 C.
of the G. & S. R. Base & Mer. Arizona.
William R. Carson, Flagman.

Subscribed and sworn to before me this 8th
day of February 1911



Van L. White
U.S. Transitman

Survey commenced February 8th 1911 and executed with a W^{est} L. E. Gurley engineers transit No. 76 with a Burk solar attachment. The horizontal limb is provided with one double vernier reading to single minutes of arc. The verniers of the latitude and declination arcs reading to 0'30" of arc.

Desaline the adjustment of the transit and correct the level and declination errors, then to test the solar apparatus by comparing its indications resulting from solar observations made during a.m. and p.m. hours with a meridian established by observations on Polaris. Proceed as follows.

At my camp. which is located near the cor. of sec 15, 16, 21, and 22 Twp 30 N. R13 E. Latitude $35^{\circ}59' N.$ Longitude $110^{\circ}57' W.$

At 3^h 14^{me} p.m. l.m.t. Set off $35^{\circ}59' N.$ on the lat. arc. $15^{\circ}05' S.$ on the decl. arc. and determine a meridian with the solar and mark a point thereof by a tack driven in a stake set firmly in the ground 5.00 chs. N. of my instrument.

At 10^h 11^{me} p.m. l.m.t. by my watch which is correct local mean time observe Polaris at western elongation in accordance with instructions in the manual and mark the direction thus determined by a tack driven in a stake set 5.00 chs. N. of my instrument.
February 8th 1911

Feb. 9th 1911 At 7^h 30^{me} a.m. l.m.t. lay off the azimuth of Polaris $1^{\circ}27'$ to the East and mark the meridian thus determined by a tack driven in the stake set last evening on which the meridian falls. 0.3 ins E. of the point determined by the solar observation. At 8^h 14^{me} a.m. l.m.t. Set off $35^{\circ}59' N.$ on the lat. arc. $14^{\circ}51' S.$ on the decl. arc. and determine a meridian with the solar and mark a point thereof by a tack driven in the stake already set. 5.00 chs. N. of my instrument. This point falls 0.4 ins E. of the meridian established by the Polaris observation.

The solar apparatus by a.m. and p.m. observations defined positions for meridians, respectively about 0'21" East and 0'16" west of the meridian

The Third Guide Meridian East through T₁ 30 N., R₁ 12 and 13 East.
Chain

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established by the Polar's observations, therefore I conclude that the adjustments of the instrument are satisfactory.

I begin at the cor. of T₁ 29 and 30 N., R₁ 12 and 13 E. ^{described in Standard Epoch R} which I established January 23rd 1911.

Latitude $35^{\circ}56'41''$ N., Longitude $111^{\circ}00''$ W.

At 9^h 44^m a.m. l.m.t. I set off $35^{\circ}56\frac{1}{2}'$ N. on the lat. arc, $14^{\circ}50\frac{1}{2}'$ S. on the decl. arc and determine a meridian with the solar ^{at the above mentioned Tp. cor.} shadow ^{thence drawn}

North bet. secv. 31 and 36.

Area S.E. slope over rolling sandy land through sage and greasewood brush undergrowth and bunch grass
1970 Prof. of sand ridge bears $N65^{\circ}E$. and $S65^{\circ}W$. desc. gently over NW. slope.

Difference bet. measurements of 4000 chs. by two sets of chainmen is 04 lbs. position of middle point
By 1st Sep. 39,98 chs.

By 2nd Sep. 40,02 chs. the mean of which is
40.00 Set an iron post 3ft. long 1 in. in diam. 26 ins. in the ground for 14 sec. ch. marked on brass cap, $N4536$ on W. half and $S31$ on E. half.

Dig pits $18 \times 18 \times 12$ ins. in and S. of post 3 ft. dia. and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high W. of cor.

Difference bet. measurements of 80.00 chs. by two sets of chainmen is 04 lbs. position of middle point.
By 1st Sep. 79,98 chs.

By 2nd Sep. 80,02 chs. the mean of which is
80.00 Set an iron post 3ft. long 3 in. in diam. 24 ins. in the ground for cor. of secv. 25, 30, 31, and 36, marked on brass cap. T 30 N. in N. half, R 12 E S 25 in NW. R 13 E. S 30 in N.E. S 31 in S.E. and S 36 in S.W. quadrants.
Dig pits $18 \times 18 \times 12$ ins. in each sec. $5\frac{1}{2}$ ft. dia. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land rolling.
Soil sandy 3rd rate.
No timber

NOTE At this cor. I set off $14^{\circ}49' S$, on the decl. arc and at noon observe the sun on the meridian and obtain on the lat. arc a reading of $35^{\circ}57\frac{1}{2}'$ N.

The Third Guide Meridian East, through Twp 30 N., Tchs. R^s 12 and 13 East.
Chairs 3

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North Tch. secs. 25 and 30.

Ascend S.E. slope over rolling sandy land through sage and greasewood brush undergrowth and bunch grass.

Difference Tch. measurements of 40.00 Chs. by two sets of chainmen is 04 lbs. position of middle points

By 1st set 40.02 Chs.

By 2nd set 39.98 Tch. the mean of which is

40.00 Set an iron post 3ft. long 1 in. in diam. 26 ins. in the ground for cor. marked on Cross Cop 14325 on W. half and 330 on E. half

Dig pits 18x18x12 ins. N. and S. of post 3ft. dist. and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high W. of cor.

49.20 Pop. of sand ridge bears N.E. and S.W. desc. NW. slope.

67.95 Grad from Ord. hi. Arizona to Puta Arizona bears N60° W. and S60° E.

Difference Tch. measurements of 80.00 Chs. by two sets of chainmen is 06 lbs. position of middle points.

By 1st set 80.03 Chs.

By 2nd set 79.97 Chs. the mean of which is

80.00 Set an iron post 3ft. long 3 ins. in diam. 24 ins. in the ground for cor. of secs. 19, 24, 25 and 30 marked on Cross Cop T 30 N. in N. half, R 12 E. S 24 in N.W., R 13 E S 19 in N.E. S 30 in S.E. and S 25 in S.W. qu a draft.

Dig pits 18x18x12 ins. in each sec. 5 1/2 ft. dist. and raise a mound of earth 4ft. base 2ft. high W. of cor.

Land rolling.

Soil sandy 3rd rate.

No timber

North Tch. secs. 19 and 24

Descend N. slope over rolling sandy land through sage and greasewood brush undergrowth and bunch grass

8.50 Bear rolling land bears N.E. and S.W. Enter hilly clayey land bears N.E. and S.W. desc. steeply

19.20 Sky line is 5 lbs. wide course N 35° E asc.

27.00 Pop. of ridge bears N.E. and S.W. desc.

The Third Guide Meridian East through 9/30 N., Feb Rs 12 and 13 East Chain

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34.00

Dry ravine course N.E. are.
Difference bet. measurements of 40.00 Chs. by two sets of chainmen is 06 lks. position of middle point
By 1st Set. 39.97 Chs.

40.00

By 2nd Set 40.03 Chs. the mean of which is
Set an iron post 3 ft. long 1 in. in diam. 26 ins. in the ground for 14 sec. cor. marked on brass cap 143 24 on W. half and 314 on E. half.
Dig pits 18 x 18 x 12 ins. N and S. of post. 3 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high W. of cor.

43.75

Top of sand ridge bears N40°E and S40°W. dire.

47.00

Dry ravine 15 lks. wide course N30°E. are.

54.00

Top of ridge bears N.E. and S.W. dire.

58.00

Dry ravine course N.E. are.

66.20

Top of sand ridge 25 ft. above ravine bears N35°E and S35°W. dire.

78.50

Dry ravine 20 lks. wide 40 ft. below top of ridge course N35°E. are.

Difference bet. measurements of 80.00 Chs. by two sets of chainmen is 10 lks. position of middle point
By 1st Set. 79.75 Chs.

80.00

By 2nd Set 80.05 Chs. the mean of which is
Set an iron post 3 ft. long 3 in. in diam. 24 ins. in the ground for cor. of sec. 13, 18, 19 and 24 marked on brass cap T30 N. in N. half N12E. S13 in NW. N13E. S18 in NE. S19 in S.E. and S24 in S.W. quadrant.

Dig pits 18 x 18 x 12 ins. in each sec. 5 1/2 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high, W of cor

Land rolling and hilly.
Soil sandy 3rd and 4th rate.
No timber

February 9th 1911.

February 10th 1911
At 9^h 14^m a.m. low. L. Dir. off. 35° 59' N. on the Cap. are. 14° 32' S. on the decl. arc. and determine a meridian with the solar at the cor. of sec. 13, 18, 19, and 24^{above described} thence run North bet. sec. 13 and 18
Around S.E. slope over hilly sandy land through

The Third Guide Meridian East through Twp 30 N., R. 13 E. and 13 East. Chains

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sage and greasewood brush undergrowth and bunch grass

9.00 Top of ridge bears N.E. and S.W. desc.

Difference Ch. measurements of 40.00 Chs. by two sets of chainmen is 08 lks. position of middle point.

By 1st Set 39.96 Chs.

By 2nd Set 40.04 Chs. the mean of which is

40.00 Set an iron post 3 ft. long 1 in. in diam. 26 ins. in the ground for 1/4 sec. cor. marked on brass cap by S 130 W. half and S 18 on E. half.

Dig pits 18 x 18 x 12 ins N and S. of post. 3 ft. dist. and raise a mound of earth 3 1/2 ft base, 1 1/2 ft. high W. of cor.

49.05 Begin abrupt desc. into ravine.

55.00 In ravine course N 65° W. asc abruptly

75.30 Top of rocky ridge bears E and W. desc. abruptly

Difference Ch. measurements of 80.00 Chs. by two sets of chainmen is 12 lks. position of middle point

By 1st Set. 79.94 Chs.

By 2nd Set 80.06 Chs. the mean of which is

80.00 Set an iron post 3 ft. long 3/4 in. in diam. 24 ins. in the ground for cor. of sec. 7, 12, 13 and 18. marked on brass cap. T 30 N. in N. half, T 12 E. S 12 in N.W. T 13 E S 7 in N.E. S 18 in S.E. and S 13 in S.W. quadrant.

Raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.

Land hilly and broken.

Soil sandy and stony 3rd and 4th rate.

No timber

North Ch. sec. 7 and 12.

Descend N slope over clayey hilly land.

4.00 Top of step desc. leave hilly land bears E and W. Enter rolling sandy land. bears E and W.

31.00 Leave rolling land bears E and W. Enter hilly land. Ascend steep S.E. slope.

33.65 Top of ridge 25 ft high bears N 30° E and S 30° W. desc.

38.50 Top of step desc. leave hilly land bears E and W. Enter rolling land bears E and W.

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Difference bet measurements of 40.00 chs. by two sets of chainmen is 08 lbs. position of middle point

By 1st set. 40.04 chs.

By 2nd set 39.96 chs. the mean of which is 40.00 chs. an iron post 3 ft. long 1 in. in diam. 26 ins. in the ground for 1/4 sec. cor. marked on brass cap T 512 on W. half and 57 on E half.

Raised mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable

Difference bet measurements of 80.00 chs. by two sets of chainmen is 10 lbs., position of middle point.

By 1st set. 79.95 chs.

By 2nd set 80.05 chs., the mean of which is 80.00 chs.

80.00 Set an iron post 3 ft. long 3 ins. in diam 24 ins. in the ground for cor. of sec. 1, 6, 7 and 12 marked on brass cap T 30 N. in N. half. R 12 E S 1 in NW, R 13 E S 6 in NE, S 7 in S. E and S 12 in S. W. quadrant.

Dig pits 18 x 18 x 12 ins. in each sec 5 1/2 ft. dia and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land rolling and hilly.

Soil sandy and clayey 3rd and 4th rates
No timber

NOTE Clouds obscure the sun at noon today rendering an observation for latitude impossible

North bet. sec. 1 and 6.

Over rolling sandy and clayey land through scattering sage and greasewood bush undergrowth

23.00 Dry run 10 lbs. wide course with arc ridge

37.90 9 ft. of clay ridge bears E and W desc.

Difference bet measurements of 40.00 chs. by two sets of chainmen is 10 lbs. position of middle point

By 1st set 40.05 chs.

The Third Guide Meridian East through Twp 30 N. R's 12 and 13 East.
Chains

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40.00 By 2nd Sec. 39.95 chs. the mean of which is
Set an iron post 3 ft. long 1 in. in diam. 26 ins.
in the ground for $\frac{1}{4}$ sec. cor. marked on brass
cap T 310 W. half and S 6 on E. half.
Dig pits 18x18x12 ins. N and S. of post. 8 ft. dist
and raise a mound of earth 3 $\frac{1}{2}$ ft. base 1 $\frac{1}{2}$ ft.
high W. of cor.

Difference bet. measurements of 80.00 chs by
two sets of chainmen is .10 lbs. position of
middle point

80.00 By 1st Sec. 80.05 chs.
By 2nd Sec 39.95 chs. the mean of which is
Set an iron post 3 ft. long 3 in. in diam 24
ins. in the ground, for cor. of Tps. 30 and 31
N. R's 12 and 13 E., marked on brass cap T 31 N.
in N. half. and T 30 N. in S. half., R 12 E S 36 in
N.W., R 13 E S 31 in N.E., R 13 E S 6 in S.E. and T 12
E S 1 in S.W. quadrant.

Dig pits 24x24x12 ins. N.E. and W. 4 ft. and
S. of post. 8 ft. dist. and raise a mound of
earth 5 ft. base 2 $\frac{1}{2}$ ft. high. S of cor.

Land rolling.
Soil sandy and clayey 3rd and 4th rates.
No timber

February 10th 1911

General Description

Township 30 N., Ranges 12 and 13 E. are
generally broken hilly mesa lands. producing
a scattering growth of bunch grass and sage
and greasewood bush.

Township No. 30 N. R 12 E. is very broken. being
cut by numerous canyons and deep ravines

February 10th 1911

Joe L. White

U.S. Surveyor

~~TRANSITMAN~~
FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Van L. White, ~~United States Deputy Surveyor~~, ^{Transitman} do solemnly swear that, in pursuance of ~~a contract received from~~ ^{Special Instruction} ~~the Commissioner of the~~ ^{General Land Office} United States Surveyor General for ~~the~~ ^{General Land Office}, bearing date of the ~~2nd day of Oct. 1907~~ ^{2nd day of Oct. 1907} ~~and the 15th day of May, 1908~~ ^{and the 15th day of May, 1908}, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the ~~United States Surveyor~~ ^{Commissioner} of the ~~General Land Office~~ ^{General Land Office}, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the Third Guide Meridian East, through Township No. 30 North, between Ranges No. 12 and 13 East

of the Gila and Salt River Base and Meridian, in the Territory of Arizona, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the ~~United States Surveyor~~ ^{Commissioner} of the ~~General Land Office~~ ^{General Land Office} and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Van L. White
~~United States Deputy Surveyor~~
Transitman

Subscribed by said Van L. White, and sworn to before me }
this 27th day of December, 1912

Lytton R. Taylor
U.S. Commissioner
at Las Cruces, N.M.



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Arizona APR 25 1914

The foregoing field notes of the survey of the
3rd Guide Meridian East, thru Tps 30 N. bet. Rs. 12 & 13 E. of the
Gila and Salt River Base and Meridian, Arizona

executed by Van L. White, U.S. Transitman
under ~~his contract No.~~ ^{Special Instructions from the Commissioner of the General Land Office}, dated October 2, 1907 and May 15, 1908, 1908, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Frank Ingalls
~~United States Surveyor General~~
SURVEYOR-GENERAL OF ARIZONA

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

~~United States Surveyor General~~