

Report of a survey covering a part of the North half of
Brewster County and the Meyers or Painted Rock Spring
Section in Terrell County

Purpose of Survey: - To locate the original survey corners in this area in their true positions as called for in the field notes on file in the General Land Office at Austin, based on the recognized 1927 North American Datum as set forth by the United States Coast and Geodetic Survey; for use in locating future surveys and to better allocate the conflicts that are depicted by the Official Map of Brewster County.

Data for Survey: - All of the records now on file in the General Land Office, pertaining to this area, including all of the field notes, connecting lines, and sketches of the original surveyors supplemented by a composite topographic map covering this area, made by the U. S. Army Engineers in cooperation with the U. S. Geological Survey; also all of the descriptions, positions and azimuths pertaining to the triangulation stations as set by both the U. S. Geological Survey and the U. S. Coast and Geodetic Survey for base work in this area.

For the Field Work a 20" Gurley Transit was used along with a standardized 100 ft. steel tape and rods and pins and other equipment necessary to secure results that conform to the standards of the above mentioned Federal agencies for third order triangulation and traverse.

As an employee under his direction, I was instructed by Bascom Giles, Commissioner of the General Land Office, to make a study of all available survey records pertaining to the northeastern portion of Brewster County and to locate the original survey corners according to their respective field note calls that they might be of more value in definitely locating future surveys in this area and to better allocate the conflicts that are depicted by the Official Map of Brewster County. I was to accomplish this by correlating the necessary amount of office and field work that would be required to make the map conform to the features as found on the ground.

Considerable effort was spent in trying to locate some of the people who were in contact with the original surveyors and who might have records that would be of some assistance in reestablishing the original corners, but we were not able to locate any data that is not on file in the General Land Office at Austin. I plotted all of this data on a map using the U. S. Geological Survey topographic quadrangle sheets as a base and identifying the calls from the topography and information of later surveyors. I assembled the blocks according to their respective survey dates and saw that these blocks did not conform exactly as the original surveyors had doubtless calculated they should. I began and plotted each individual connection line, of which there are several, in its respective position. From this information it is evident that many inconsistencies exist between the results obtained by the original surveyors and even between the results obtained by all of the recent resurveys using modern equipment and methods.

From these results, I deducted that these inconsistencies were brought about by the difficult terrain and ever changing topography which makes it very impracticable to attempt extensive traversing in this locality. I confirmed this deduction by a reconnaissance survey over the area involved which required several days to merely view the more assessable points in question when escorted by those schooled in

ranch life and accustomed to that type of terrain and who are familiar with each and every trail in the entire area.

Having completed my reconnaissance, I returned to Austin and assembled all necessary data and equipment and returned to Brewster County to make connections between all of the old original survey corners, from which the intermediate surveys were constructed. We did this by a system of triangulation using as basic points only those triangulation stations set and accepted by the U. S. Geological and U. S. Coast and Geodetic Surveys and accepting only true azimuths with the needle as a check.

With the assistance of men furnished by Messrs. Asa Jones and Roy Stillwell, I proceeded to mark all of the available triangulation stations by using substantial flags that could easily be seen for a distance of several miles.

Having flagged all of the triangulation stations, we drove to Stairway Mountain and identified a rock mound on its northeast slope as the one called for by R. S. Hunnicutt in his field notes filed in the Land Office December 30, 1908. At the present time, this mound is some two feet high and is located in the west edge of a small ravine and from which the highest vertical ledge on Stairway Mountain bears S 19° 09' W 1220 varas. (This ledge or sheer face being just west of the highest peak on the mountain, but being the only definite point at which a sight can be taken.) A definite ledge on top of Iron Mountain bears N 0° 48' E some three miles "X" chisled in flat top of embedded boulder 12½ feet across top and about 5 feet high bears S 34° 51' E 32 varas. We set a flag in this mound and made a diligent search over the entire eastern slope of that part of the mountain to the Southeast for other mounds or locations but found no place other than the above mentioned mound where the calls of Gano's original field notes could be made to fit. From here we went to where Maravillas Creek enters the Rio Grande River and made a search for a rock mound that Jno. T. Gano calls for in his original field notes as follows: about 300 varas below and northeast of the mound of Maravillas Creek. At the present time the banks of the river and creek are vertical rock ledges and show no signs or means of erosion. There is a flat sandy soil extending from the west bank of the river below the mouth of the Creek to the westward for several hundred varas. I could find no signs of a rock mound in the vicinity of the one called for in Gano's field notes. We did flag the bluff bank intersection of the Creek and River and by later triangulation found this to bear S 89° 18' E 21,521 varas compared to Gano's call of S 89 3/4° E 21,065 varas. From this point, we went to Bullis Gap and went down Reagan Canyon to its intersection with the Rio Grande River. Jno. T. Gano calls for a stone mound in this area as follows: a rock mound on a rocky point on the bank of the Rio Grande River, on the lower side of the mouth of a canyon and 5 varas below a calvary watering trail, which enters the Rio Grande from a deep canyon, said mound being 46,687 varas S 66° 08' W from a stone mound on the right bank of San Francisco Creek at its junction with the Rio Grande River. I found the lower side of Reagan Canyon to be a rough rocky bluff bank that extends out to the sandy bank of the River and the Canyon to have a flat bottom width of some thirty varas where one coming down to the waters edge could easily ride or walk and any part or all of it can now be used as a trail to reach the waters edge. On a rocky point of the river bank and just below the bluff bank of this canyon, I found a definite stone mound about 1 foot high made of flat stones that bear no markings. Going up this rocky ridge and bearing away from the river, I found two other similar stone mounds which are on higher ground and away

from any probable high water, but containing no marked stones. I searched the river bank above and below this canyon and the canyon about one-half mile up stream, but found no other stone mounds. Searching further, I found a 4" X 4" concrete post protruding about 2 feet which is 497 varas N $13^{\circ} 19'$ E from the first of the three mounds mentioned above, but this post is up on the side of the mountains some 150 varas from the bluff bank of the river and at the head of a small blind canyon that leads down to the river. Several flat stones have been placed about this post, but I could find no evidence of a trail from here to the waters edge and at the present time I judge it very impracticable to descend to the water from this point. Leaving Reagan Canyon, we drove to the high bank above the Rio Grande River where San Francisco Creek intersects the river canyon and on the large flat rocks forming this cliff and overlooking the River and Creek, we found a rock mound some 18" high built around a large flat stone set almost vertical. In the bedrock near this mound has been chisled the letters B.C.P.Pr.Co. The letter A chisled in bedrock bears S $67^{\circ} 33'$ W. 2.7 varas and the letter T chisled in bedrock bears N $17^{\circ} 14'$ W. By later triangulation, this mound was found to bear N $64^{\circ} 25'$ E 45,564.7 varas from the rock mound on the river bank at its junction with Reagan Canyon.

We drove to a place on the west bank of Maravillas Creek about one mile northwest of Maravillas Gap and orienting by use of our topographic map, we located a rock mound on the west bank of the creek from which U.S.G. S. BM stamped 3343 bears N $69 50E$, 1288.5 varas, metal wind mill bears N $33^{\circ} 25'$ W about 250 varas; rock cairn on top of lava cone distant about $6\frac{1}{2}$ miles bears S $43^{\circ} 41'$ E, peculiar shaped peak in range of mountains bears S $08^{\circ} 30'$ W and the east end of Sierra Santiago peak bears S $39^{\circ} 01'$ W. The calls given in the original field notes of C. E. Miner filed in the Land Office on July 25, 1878, for survey 1, block 21, call as follows: a rock mound on the S. W. bank of Creek from which Sierra Santiago bears S. $38\frac{1}{4}^{\circ}$ W about 7 miles, bunch of willows bears $4 3/4'$ W. 126 varas; the largest of 3 cottonwoods bears N $5 3/4^{\circ}$ W 2400 varas and a water hole in bed of Creek bears S. $36\frac{1}{4}^{\circ}$ E 40 varas. In 1889 W. D. Mabry filed corrected field notes on this same survey which read as follows: Beginning at a Rock Mound on the southwest bank of Maravillas Creek whence a large water hole now dry bears S 39° E 40 varas and east end of Sierra Santiago bears S $39 3/4^{\circ}$ W about 7 miles and the largest of three cottonwoods bears N $5 3/4^{\circ}$ W and a peculiar shaped peak in range of mountains east of Santiago peak bears S $9\frac{1}{4}^{\circ}$ W. At the present time, I find no sign of a water hole in the bed of the creek and there are no willows along the creek that can be made to fit the above call. At a distance of about a mile upstream, there are numerous cottonwoods of considerable size, but none of them fit the calls as given in these field notes. I could find no other rock mounds in this vicinity and as this mound fits the calls of Mabry's corrected field notes, I accepted it and found its true position by triangulation.

We drove to a switch on the G. H. & S. A. Railroad known as Maxan and from the field notes filed in the Land Office in October, 1881, by H. A. Thompson, reading as follows: beginning at a stone mound from which a rocky round mountain bears N 2 E 200 varas and an old chimney bears S 34° W 70 varas; we located our position on the ground. About one-half mile southwest of Maxan, we could see a very prominent isolated cone shaped mountain with large boulders covering its sides from top to bottom. It is so different from any thing I had ever seen it stands out from all of the surround-

ing hills. We proceeded to the mountain and attempted to set the called distance and bearing, but this put us just below a bluff line and into a creek bed. Continuing in the direction of the bearing given in the field notes, we crossed the creek and just above the bank we came upon the old charred ruins of a chimney. From these ruins and a large stone near the center marked "X", we set off the called bearing and distance and found a 3/4" iron pipe driven flush with the ground and surrounded by stones, the largest one of which was marked N. W. Cor. 14. From this pipe the "X" on the charred ruins bears S 36° 03' W 70 varas and the rocky round mountain bears N 1° 22' E 890 varas. I could locate no other mounds in this vicinity so we found the position of this pipe by triangulation.

From here we drove to Dryden and about 8 miles northeast of Dryden to the place known as Painted Rock, or Meyers Spring, situated on Meyers Creek. Approaching this place from a northern direction, we came into the flat slope of the creek and up to a small stream. On the opposite (south) side of the creek, we were facing an overhanging rock bluff bank that rises fifty feet or more. On the rock wall under the cliff were many Indian Paintings. Near the west edge of these paintings stands a water tank erected of cut stones, the cornice of which is carved 1901. Just above this tank and under the overhanging ledge is a large hole in the rock from which water seeps and runs into the tank below. I was informed by old settlers in this locality that water runs from this hole during the wet seasons and merely seeps at other times. Going out of the creek bed and out on top of the overhanging ledge, we found a fence coming in from the southeast. We attempted to locate our point just over the hole in the bluff below and used this point as a base to construct Section 335, the field notes of which were filed in the Land Office in January, 1879 and read as follows; Beginning at a cedar stake and stone mound N 45° E 1344 varas from Painted Rock Spring; Thence S 1900 varas to a cedar stake and stone mound; Thence W 1900 varas to a cedar stake and stone mound; Thence N 1900 varas to a cedar stake and stone mound; Thence E 1900 varas to the place of beginning. We confirmed our position of the spring by a traverse check to the S.W. corner of Survey 335, where we find a fairly old stone mound and one not so old, both containing marked stones.

We located the position of the spring by triangulation and returned to the country around the northern part of Block G-1 and located the N. W. corners of Block G-1, from their respective field notes, as set by R. S. Hunnicut and W.L.Rider. We also located a point referred to by several late surveyors as Dodd's "B" corner, identifying it by W. L. Rider's calls in his field notes for Survey 44, Block 336 and connected this to a rock mound nearby.

We determined the positions (Latitude and Longitude) of all of the points mentioned above by triangulation using the U.S. Geological and U. S. Coast and Geodetic Survey Stations as a base. These points were used to form a base map upon which the blocks and surveys were constructed as described herein.

All streams shown thereon were transferred from the topographic sheets of the U. S. Geological Survey and represent only the center lines of same without regard for widths or bank slopes.

Since the Rio Grande River forms the eastern boundary and a limit on the river surveys, they have been laid in as follows:

Block B-1: Survey 1 was constructed from a stone mound on the bank of the Rio Grande River just above its intersection with Reagan Canyon giving the north line its original field note call E-W; then going south the field note call of 950 varas

and East until the river is reached disregarding call distance. Survey 2 begins at the point where the south line of Survey 1 reaches the river and each succeeding survey is constructed in the same manner from Survey 1-20 inclusive. Survey 21 is located according to its original call and begins at a point about 300 varas below the mouth of Mavarillas Creek and is constructed along with the remaining surveys in this block in the same manner as the first 20 surveys mentioned above.

Block G-18: Survey 95 begins, according to the original field note call, "at a rock mound on the N. W. Bank of the Rio Grande and on a high bluff just above the mouth of San Francisco Creek," and is constructed with the north line taking its field note call, then going south, west and south, respectively, according to the field notes and back east to the river disregarding the call distance. Survey 96 begins at this new point on the river and the succeeding surveys, through Survey 102, inclusive, are constructed in the same manner.

Block M2: Surveys 28 and 26 were constructed from the point where the south line of Survey 102, Block G-18, reached the river and in the same manner. The west line of Survey 1, Block M-2, was constructed from the same rock mound as mentioned in Block B-1, at the mouth of Reagan Canyon, according to its call distance. A straight line was then drawn from this point to the west end of the north line of survey 26, and the line was divided into 26 equal parts to form a proportionate E-W part for each survey in Block M-2. The surveys 1 to 27, inclusive, were constructed in the same manner as the above mentioned river surveys using the E-W distance as determined from the divided line, or 1282 varas.

T. & St. L. Blocks: The surveys in the T. & St. L. Blocks 225 to 237, inclusive, were constructed according to the findings of R. S. Hunnicut. Since Hunnicut found no monuments east of the fifth tier of surveys in Blocks 226, 231, 234 and 239, all surveys east of this line are constructed on an extension of his E-W lines thus allowing the N-S distances to vary as shown but holding the E-W distance to 1900 varas as called in the original field notes. Other T. & St. L. Blocks shown were constructed from the original field notes and are regular sections. Block 21, from which the T. & St. L. Blocks were laid in, was also constructed according to the original field notes and contains only regular sections.

Block G-1 and the other "G" Blocks that the original surveyor constructed from his position for the S. W. corner of Block G-1; namely, Blocks G-13, G-14, G-15, G-18, G-20, G-21, G-22, and G-24 were built according to the calls in the original field notes, and are regular sections based on his original corner.

The D-Blocks, namely, D-10, D-11 and D-12, were constructed from the position of the Meyers, or Painted Rock Spring Survey in Terrell County and according to the original field notes making them regular surveys based on course and distance.

The remaining blocks coming in from the north, namely, Blocks G, 244, 334, 336, 343 and "W" were constructed from the Maxan Spring Survey and based on the course and distance of the original field notes.

The latitude and longitude of the points determined are as follows:

Hunnicut's S. W. Corner, Block G-1
Latitude $29^{\circ} 33' 51''$ 951 Longitude $102^{\circ} 57' 56''$ 238

Junction Rio Grande River & Maravillas Creek (Bluff bank)
Latitude $29^{\circ} 33' 44''$ 654 Longitude $102^{\circ} 46' 39''$ 423

from S. W. Cor. G-1 Mar. Cr. brs. S $89^{\circ} 18'$ E 21,521 varas.

Stone mound at intersection River & Reagan Canyon
Latitude $29^{\circ} 43' 45''$ 378 Longitude $102^{\circ} 40' 56''$ 698
from mouth Mar. Cr. Reagan Canyon md. brs. N $26^{\circ} 30'$ E 24,410.9
varas.

Stone mound on high bluff at junction River and San Francisco
Creek.

Latitude $29^{\circ} 52' 46''$ 321 Longitude $102^{\circ} 19' 21''$ 129
from Reagan Canyon, San Francisco Cr. Cor. Brs. N $64^{\circ} 25'$ E
45,564.7 varas. from Maravillas Creek San Francisco Creek
bears N $51^{\circ} 24'$ E 66,544.8 varas.

N. W. Corner Survey 1, Block 21
Latitude $29^{\circ} 56' 29''$ 764 Longitude $103^{\circ} 18' 51''$ 616

N. W. Corner Survey 14, Block G (Maxan Springs)
Latitude $30^{\circ} 04' 32''$ 208 Longitude $102^{\circ} 52' 35''$ 770

Meyers Spring in center of Survey 335, Terrell County.
Latitude $30^{\circ} 05' 05''$ 790 Longitude $101^{\circ} 57' 32''$ 280

Dodds "B" Corner by W. L. Rider notes.
Latitude $29^{\circ} 56' 01''$ 116 Longitude $102^{\circ} 36' 30''$ 686

Stone Mound also called "B" Corner
Latitude $29^{\circ} 56' 07''$ 024 Longitude $102^{\circ} 36' 35''$ 658

S. W. Corner 1-B1.M2 by Scott.
Latitude $29^{\circ} 43' 58''$ 671 Longitude $102^{\circ} 40' 53''$ 095

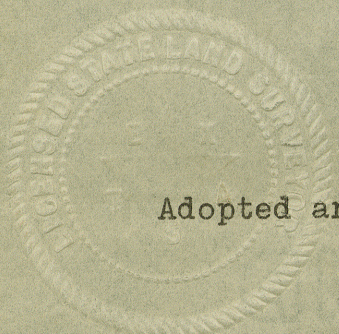
N. W. Corner 17-B1 M2 Scott.
Latitude $29^{\circ} 47' 34''$ 197 Longitude $102^{\circ} 35' 29''$ 350

N. W. Corner Block G-1 by Hunnicut
Latitude $29^{\circ} 51' 19''$ 624 Longitude $102^{\circ} 58' 11''$ 851

N. W. Corner Block G-1 by Rider
Latitude $29^{\circ} 49' 42''$ 458 Longitude $102^{\circ} 56' 37''$ 873
from N. W. Corner G-1 Rider, N. W. Corner G-1 by Hunnicut
bears N $40^{\circ} 08'$ W 4622.2 varas.

Submitted as report of work done in a survey of
Northeastern part of Brewster County, during December, 1941,
and January, 1942;

This 1st day of July, 1942, A.D.


M. P. Ball
M. P. Ball

Adopted and approved this 14th day of August, 1942.

M. P. Ball
Licensed State Land Surveyor

Approved and filed as a record in this office this 14th day of
August, 1942.

Bascom Giles
Commissioner of the General
Land Office

CURRENT
MISCH FILE NO 81
REPORT OF A
SURVEY COVERING
PART OF N PART
BREWSTER CO

By M. P. BALL

AUGUST 1943.