

DESCRIPTION  
HORIZONTAL CONTROL STATION

DIAGRAM Gallup  
USGS QUAD NO 318

3rd Order

Triangulation

Electronic - Distance Traverse

Intersected Object

Station CAIRN NEAR STATION DOUGLAS County Navajo State Arizona

Established by USGS Year 1886 Project Bulletin 122

Check one: C&GS 1951

New Station: Write full description below

Recovery of Old Station: Recovered by \_\_\_\_\_ Year \_\_\_\_\_ Project \_\_\_\_\_

Object	Bearing	Distance		Directions
		Feet	Meters	

Described in U.S. Coast and Geodetic Survey description list 35 109 3, station 1009.

"A large prominent butte, about 12.0 mi N. of Carrizo, Apache County, Arizona. It is of lava, and stands perhaps 600 ft above the base.

Station mark: A stone monument on the highest point."

ARIZONA ZONE EAST  
X= 586,813.59  
Y=1,510,766.94

$\Delta \alpha = +0^{\circ}10'02''$

Latitude  $35^{\circ}09'07.929''$  Longitude  $109^{\circ}52'34.484''$

C&GS Adjusted Coordinates

FILE COPY

DESCRIPTION  
HORIZONTAL CONTROL STATION

DIAGRAM Gallup  
USGS QUAD NO 318

1st Order

Triangulation

Electronic - Distance Traverse

Intersected Object

Station DESERT PARK

County Apache

State Arizona

Established by C&GS

Year 1936

Project \_\_\_\_\_

Check one:

New Station: Write full description below

Recovery of Old Station: Recovered by USGS Year 1954 Project PH 358

Object	Bearing	Distance		Directions
		Feet	Meters	

Described in U.S. Coast and Geodetic Survey description list 351093, station 1003.

Note by R.N.G., 1954: Station was found as described. Station mark and reference mark No. 2 were found in good condition. Reference mark No. 1 was not recovered. A ditch has been dug in the immediate vicinity of the reference mark and it is believed to have been destroyed, although a thorough search was not made.

Note by USGS, 1972, New to reach follows:

From Petrified Forest N.P. Interchange go on park rd. to tollgate at part headquarters, continue on park rd. 0.4 mi to jct. of old routing of U.S. Highway 66, now a park service rd., go E. on service rd. 0.5 mi. Station is S. of rd. and about 100 yards E. of Park A.T.&T. Relay Tower.

C&GS Adjusted Coordinates

ARIZONA EAST ZONE

ELEV 5813.97 FT

X= 619076.48

Y= 1483014.50

MAPPING ANGLE=-0 13 42

DESERT PARK

LAT 35 4 32.3100

LONG 109 46 7.2770

SEP 6 1972

FILE COPY

DESCRIPTION  
 HORIZONTAL CONTROL STATION

DIAGRAM Gallup  
 USGS QUAD NO 318

1st Order

Triangulation

Electronic - Distance Traverse

Intersected Object

Station DOUGLAS County Navajo State Arizona  
 Established by USC&GS Year 1919 Project \_\_\_\_\_

Check one:

New Station: Write full description below.

PH 358

Recovery of Old Station: Recovered by USGS Year 1972

Project PH 1593

Object	Bearing	Distance	
		Feet	Meters

Not Occupied in 1972

Described in U.S. Coast and Geodetic Survey Description list 35 109 3 station 1009. All marks in good condition. A new To reach follows:

From the jct. of U.S. Highways 66 and 180 in Holbrook, go NE. on U.S. Highway 66 then I-40 for a total of 8.8 mi to the Sun Valley Overpass; exit at the Sun Valley Overpass, and go N. along dirt rd. 0.4 mi. to jct. with old Highway 66; turn E. (right) along old Highway 66 for 3.7 mi to a N.-S. fence with a track rd. leading N. along the west side of fence; turn N. (left) along track rd. and fence for 2.6 mi to a Y-rd. fk.; take NE. fork (right) for 1.7 mi to a fence; pass through gate and continue straight ahead for 1.5 mi to a dim rd. fk. right; continue straight ahead for 0.2 mi to another Y-rd. fk.; take left fork and go along dim track rd. for 1.8 mi to an E.-W. fence; go W. along fence for 1.1 mi to a T-rd. N.; turn N. (right) at T-rd. and continue along rd. for 2.2 mi to a windmill and an abandoned ranch house on south bank of Lithodendron Wash; cross wash and continue on track rd. (generally N.) for 1.7 mi to a dim X-rd.; take E. fork (right) through down fence, and continue on dim track rd. for 5.0 mi to N.-S. fence (Petrified Forest National Park Boundary) and end of truck travel. Pack easterly up prominent mountain to top and station. About a 45 minute pack.

*NGS ADJUSTED VALUES*

ARIZONA EAST ZONE

ELEV 6234.3 FT

X= 536800.97

Y= 1510764.97

MAPPING ANGLE=+0 10 2

DOUGLAS

LAT 35 9 7.9100

LONG 109 52 34.6360

MAY 17 1973

DESCRIPTION

Supplementary Horizontal Control Station

Station 1-277 A County Navajo State AZ Quad No. 318  
 Project PH 1540 Year 1972  
Surveyed by checked (X) or unchecked ( ) methods

Description:

Located 26 mi (airline) WNW. of Chambers; 15 mi SE. of Indian Wells; 14 mi NW. of the Petrified Forest National Park Headquarters; on a prominent point on the north side of, and overlooking Leroux Wash.

Station mark: A 1/2 inch reinforcing rod projecting 0.3 ft above ground.

Paneled.

ELEV 5883.3 FT

ARIZONA EAST ZONE

X= 579971.3  
 Y= 1544385.2  
 MAPPING ANGLE=+0 9 15

1-277 A LAT 35 14 40.656 LONG 109 53 55.795

STATION	OBSERVED DIRECTION	DISTANCE	A-O	A-O FT
STATIONS OBSERVED BY THIRD ORDER METHODS				
1-234 A	259 43 50.4	35749.4	-7.8	
3-160 VC	296 28 9.6	47536.3	-4.4	
DOUGLAS	348 40 20.9	34310.1	-3.3	
HENNESSY	29 39 36.6	69355.4	1.9	
1-279 A	89 48 29.9	18376.9	0.4	
HOGON USGS	264 24 21.7	77799.5	0.5	
3-154 A	59 18 21.6	26674.4	6.4	
3-151 VC	68 33 13.2	48527.4	0.9	

DESCRIPTION

Supplementary Horizontal Control Station

Station 1-279 A County Navajo State AZ Quad No. 318  
 Project PH 1540 Year 1972  
Surveyed by checked (X) or unchecked ( ) methods

Description:

Located 19.0 mi (airline) N. of Holbrook; 5.0 mi SE. of Bidahochi Trading Post; about 1.0 mi S. of a double steel tower transmission line; on a small top on the edge overlooking Leroux Wash.

Station mark: Ground at reinforcing bar projecting 0.4 ft above ground.

Paneled.

ARIZONA EAST ZONE

ELEV 5876.6 FT

X= 561596.5

Y= 1544274.2

MAPPING ANGLE=+0 7 8

1-279 A

LAT 35 14 39.992

LONG 109 57 37.339

STATION	OBSERVED DIRECTION	DISTANCE	A-O	A-O FT
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STATIONS OBSERVED BY THIRD ORDER METHODS

3-151 VC	56 32 21.2	32099.4	4.0	
1-277 A	269 46 20.0	18376.9	2.4	
3-160 VC	289 5 23.9	64488.8	-11.9	
DOUGLAS	323 10 12.5	41934.0	-1.4	
HENNESSY	14 47 50.9	62282.0	1.2	
NE4/20N/23E VC	324 17 17.8	33262.2	-14.8	
SC 31/21N/23E VC	342 7 46.0	28333.6	-3.2	
SC 34/21N/22E	14 38 40.2	27845.9	12.5	

JUL 19 1972