

32°15'
112°30'

ARIZONA 77

Index

<u>Station</u>	<u>Project</u>
Childs (C&GS)	Ajo
Papago	Ajo
Poso (C&GS)	Ajo
Redondo (C&GS)	Ajo
Sauceda (C&GS)	Ajo
SBM 1682.005	Ajo
Sec Cor T11-12S, RLW	Ajo
Sec Cor T12-13S, RLW	Ajo
Target No. 2 (C&GS)	Ajo
1-113 A	Ajo
4-142 A	Ajo
5-240 D	Ajo

Ajo Project Master in ARIZONA 23 - Book: PH 858

Station: PAPAGO

County: Pima-Maricopa

State: Ariz. (77)

Observer: W.G. Carson

Year: 1931 Datum: 1927 N.A. (Adj. 1954)

Description: J.A. Lyons

1948

FILE COPY

Books: D-116, 710, 715, 725; PH 73-74

Located 8.5 mi. E. thence 6.5 mi. N. of town of Ajo. It is near center of sec. 13, T. 11 S., R. 5 E., on N. end of long ridge.

To reach station go N. along Ajo-Gila Bend rd. to Maricopa-Pima county line; take old rd. leading easterly 8.5 mi.; from this point station can be reached on foot about 2 mi. S.

Station mark: Standard bronze tablet under center of monument.

Reference mark: Drill hole in rock; 26.5 ft. from station mark in azimuth 221°24'.

Note by J.A.L., 1948: Station recovered as described.

V.A. elevation 3202 ft. (By U.S.G.S. 1948)

NAD 83 VALUES AVAILABLE

[Latitude 32 28 05.825

Longitude 112 44 23.143]

To Station—	Azimuth			Back Azimuth			Distance Feet	
	°	'	"	°	'	"	Log. Meters	Feet
Ajo (C&GS)	30	59	56.99	210	56	39.53	4.272221	61405.2
Sneed	84	35	30.62	264	28	28.06	4.315051	67769.7
Crater	120	03	43.69	299	58	29.54	4.246042	57813.1
Rio	137	05	26.09	316	58	56.22	4.442945	90976.5
Dim (C&GS)	164	50	50.18	344	50	06.29	3.911469	26758.0
Hat Brim (C&GS)	179	47	08.62	359	47	07.20	4.265726	60493.7
Sanceda (C&GS)	273	05	26.46	93	10	16.41	4.150074	46350.9
Childs (C&GS)	352	26	35.40	172	27	22.35	4.241468	57207.4

12-27-54 am

FILE COPY

Page 2 of 2

Arizona (77)

Pima County

SBM 1682.005

1927 N.A.D. (Unadj.)

J.E. Kallbrier, 1962

Book: PH 858

Located about 6 mi. E. of Ajo and about 7 mi. NW. of Rocky Point Junction.

To reach from railroad station at Ajo, drive SE. along Highway 85 for 3.5 mi.; turn left on dirt rd. and drive 1.8 mi. to an intersection of a dirt rd. leading E. and N.; drive on rd. N. for 3 mi. to SBM. Station is on S. side of rd. 52 ft. from center line of rd.

Station mark: Buried boulder with chiseled square on top, projecting 6 in. above ground.

Signal: White flag over red cross-target on wood pole centered over station mark.

Signal data:	TWF	15.3 ft.
	BWF	12.1
	TRXT	12.1
	BRXT	9.5

Image point No. 1: Center of bush, 58 ft. from station mark and level in azimuth 184°36'43". X=245,695. Y=499,011.

Image point No. 2: Center of bush, 20 ft. from station mark and level in azimuth 90°25'58".

Image point No. 3: Center of bush, 46 ft. from station mark and level in azimuth 346°45'56".

Photo No. 4-138

ARIZONA ZONE CENTRAL
X= 245,690.
Y= 498,953.

Elevation: 1682.005 ft.
(Unadjusted Leveling by
R.R. Moore, 1962)

Latitude: 32°22'08.61"

Longitude: 112°44'25.25"

<u>To Station</u>	<u>Azimuth</u>	<u>Back Azimuth</u>	<u>Feet</u>
Ajo 2	62°15'46"	242°12'30"	35,527.
Bat (C&GS)	168 42 26	348 41 53	27,195.

NAD 83 VALUES AVAILABLE

4/27/62 lcl *llm*

FILE COPY

✓ 4/27/62

Arizona (77)

Pima County

SEC COR T11-12S, R4W

1927 N.A.D. (Unadj.)

J.R. Heiser, 1962

Book: PH 858

Located 11.8 mi. NE. of Ajo, Pima County, at a bend in the Pipeline Rd. and at a fence corner on the boundary of the Papago Indian Reservation.

Station reached by helicopter.

May also be reached by driving NE. along the Pipeline Rd. approximately 11 mi. from the intersection of Arizona State Highway 86 and Pipeline Rd.

Station mark: GLO brass cap, SE. cor. sec. 33, T. 11 S., T. 12 S., R. 4 W. PIR

Computer's note: This position is computed using tellurometer distance but this one does not check triangulation distance for 5604 ft.

Photo No. Not identified.

ARIZONA ZONE CENTRAL

X= 565,751.

Y= 516,684.

V.A. Elevation: 1899 ft. (T)

GROUND IS 1.0 FT LOWER

Latitude: 32°25'05.53"

Longitude: 112°40'32.83"

NAD 83 VALUES AVAILABLE

4/27/62 lcl *mm*

FILE COPY

4th order ✓

Arizona (77)

Pima County

SEC COR T12-13S, R4W

1927 N.A.D. (Unadj.)

G.L.O., 1933

J.R. Heiser, 1962

Book: PH 858

(77) E

Located 11.4 mi. SE. of Ajo, Pima County, on the ~~W.~~ side of the Poso Redondo Mountains, at a fence corner on the boundary of the Papago Indian Reservation.

Station reached by helicopter.

Station mark: GLO brass cap, SE. cor. sec. 33, T. 12 S., T. 13 S., R. 4 W., PIR

Photo No. Not identified.

ARIZONA ZONE CENTRAL

V.A. Elevation: 1968 ft.

X= 265,519.

Y= 485,011.

Ground is 1.0 ft. lower.

Latitude: 32°19'52.10"

Longitude: 112°40'32.91"

<u>To Station</u>	<u>Azimuth</u>	<u>Back Azimuth</u>	<u>Feet</u>
Poso (C&GS)	328°13'15"	148°13'58"	13,246.

NAD 83 VALUES AVAILABLE

4/27/62 lcl *aman*

FILE COPY

Arizona (77)

Pima County

CHILDS (C&GS)

1927 N.A.D.

USC&GS, 1920
N. Watkinson, 1962
W.G. Carson, 1931

Book: PH 858

Station mark found as described in U.S. Coast and Geodetic Special Publication No. 224, page 174 but reference mark not recovered.

Revised location: Station is about 6 mi. SE. of Ajo, Arizona, and 3.5 mi. N. of Rocky Point Junction. Station is on the W. edge of a prominent, flat-topped butte about 3 mi. E. of Highway 86.

Station reached by helicopter.

Signal: White flag over red cross-target on pole centered over the station mark.

Signal data:	TWF	11.0 ft.
	BWF	8.0
	TRXT	7.8
	BRXT	5.2

Photo No. GS-VAHP 4-19 Paneled.

ARIZONA ZONE CENTRAL

V.A. Elevation: 3097 ft.

*X= 253,234.94

Y= 478,284.12

*Latitude: 32°18'44.653"

Longitude: 112°42'55.486"

* = Values by C&GS

4/30/62 lcl *Jam*

FILE COPY

Arizona (77)

Pima County

PAPAGO

WSP
L.I.W. 1/48

1927 N.A.D. (Unadj.)

W.G. Carson, 1931

J.A. Lyon, 1948

Book: PH 858

R.N. Gardner, 1962

Station recovered as described by J.A. Lyon, 1948.

Station reached by helicopter.

Station mark is an unstamped USGS BM tablet.

Drill hole reference mark found as described.

Signal: White flag over wooden red cross-target centered over station mark.

Signal data:	TWF	11.4 ft.
	TRXT	7.7
	BRXT	5.2

Computer's note: Adjusted azimuths and distances are available in final format.

Photo No. Paneled.

ARIZONA ZONE CENTRAL
X= 246,148.7
Y= 535,049.3

V.A. Elevation: 3202 ft.
(1948)

Latitude: 32°28'05.825"

Longitude: 112°44'23.143"

NAD 83 VALUES AVAILABLE

*(See next page)
for Desc.*

Page 1 of 2

4/30/62 lcl *anon*

FILE COPY

Arizona (77)

Pima County

POSO (C&GS)

1927 N.A.D.

USC&GS, 1936

J.R. Heiser, 1962

Book: PH 858

Described in U.S. Coast and Geodetic Survey Special Publication
No. 224, page 141. *32 1123-1015*

Station found as described, all marks in good condition.

Station reached by helicopter.

Signal: White flag over red cross-target centered over station
mark.

Signal data:	TWF	10.9 ft.
	BWF	7.9
	TRXT	7.8
	BRXT	5.2

Photo No. 3-222 Paneled.

ARIZONA ZONE CENTRAL
*X= 272,414.88
Y= 473,701.78

V.A. Elevation: 2153 ft.

*Latitude: 32°18'00.668"

Longitude: 112°39'11.637"

* = Values by C&GS

*OK SD
3/86*

4/30/62 lcl *aman*

FILE COPY

Arizona (77)

Pima County

REDONDO (C&GS)

1927 N.A.D.

USC&GS, 1920, 1935

H.R. Poulsen, 1962

Book: PH 858

32 112 3-1016
All marks found in good condition as described in U.S. Coast and Geodetic Survey Special Publication No. 224, page 105 except reference mark No. 2 which was not recovered because description was unavailable when station was occupied.

Station reached by helicopter.

Signal: White flag over red cross-target centered over station mark.

Signal data:	TWF	11.0 ft.
	BWF	8.0
	TRXT	7.8
	BRXT	5.2

Photo No. Paneled.

ARIZONA ZONE CENTRAL
*X= 312,932.96
Y= 472,466.38

V.A. Elevation: 3000 ft.

*Latitude: 32°17'50.952"

Longitude: 112°31'19.497"

* = Values by C&GS

4/30/62 lcl *lcl*

FILE COPY

Station: SAUCFSA (C&GS)

County: Pima

State: Ariz. (77)

Observer: U.S.C. & G.S. 1920, Year: 1936 Datum: 1927 N.A.

Description: W.L. Settlemyer 1948, 1949

Books: PH 73-74

FILE COPY

Described by U.S.C. & G.S. in Special Publication 224, p. 87.

Note by W.L.S., 1948: Recovered as described by C&GS.

To reach from Ajo, proceed E. along pipeline rd. for 18.0 mi. to pass between a small butte and high mountain to the S. Pack NW^{UP} ridge of mountain about 1 1/2 hrs. to highest point and station.

Note by W.L.S., 1949: Found as described by C&GS in S.P. 224; all marks in good condition.

V.A. elevation 4117.6 ft. (By U.S.G.S., 1949)



* [Latitude 32 27 40.775

* Longitude 112 35 22.977]

To Station—	Azimuth			Back Azimuth			Distance Feet	
	°	'	"	°	'	"	Log. Meters	INDEX
*Childs (C&GS)	35	38	40.2	215	34	37.8	4.307767	66643
*Growler (C&GS)	83	25	18.48	263	08	51.75	4.6847676	158763.9
Sneed	88	07	22.13	267	55	29.74	4.540226	113817.9
Papago	93	10	16.41	273	05	26.76	4.150074	46350.9
Crater	108	10	07.11	288	00	02.73	4.489742	101327.2
*Dim (C&GS)	118	04	45.50	297	59	11.4	4.264622	60340
*Hat Brim (C&GS)	143	38	26.80	323	33	34.8	4.377788	78302
1-19A	147	01	19.24	327	00	05.81	3.816630	21508.7
BM #54 GWM 1948"	167	19	24.64	347	18	53.32	3.840927	22746.3
3-09C	168	57	37.13	348	56	57.50	4.002082	32966.0
Quail	171	40	10.60	351	39	14.75	4.271342	61281.1
Donkey	196	41	19.50	16	42	25.27	4.046023	36476.0
*Maricopa 2 (C&GS)	211	26	19.73	31	33	08.3	4.577927	124140
*Moivavi (C&GS)	237	02	35.62	57	06	45.0	4.159460	47363
Toapit	269	09	16.50	89	14	01.37	4.141842	45480.6
* Values by U.S.C. & G.S.								

12-27-54 am

FILE COPY

Form 9-107a

FILE COPY
Geodetic Control Unit
DO NOT REMOVE

Arizona (77)

Pima County

SAUCEDA (C&GS)

1927 N.A.D.

USC&GS, 1920

Book: PH 858, PH 74

R.N. Gardner, 1962

W.L. Seftlemeyer, 1948, 1949

32 112 3 - 1018

Station recovered as described in U.S. Coast and Geodetic Survey Special Publication No. 224, page 87. All marks in good condition.

Station reached by helicopter.

Signal: White flag over wooden red cross-target centered over station mark.

Signal data:	TWF	11.2 ft.	Tripod found on station:
	TRXT	7.2	Top light
	BRXT	5.2	Top tripod
			4.7 ft.
			3.7

Photo No. Paneled.

ARIZONA ZONE CENTRAL

*X= 292,409.55

Y= 532,193.54

V.A. Elevation: 4118 ft.
(Checked, 1962)

*Latitude: 32°27'40.775"

Longitude: 112°35'22.977"

* = Values by C&GS

4/30/62 lcl *Wan*

FILE COPY

Arizona (77)

Pima County

R-26 (USGS)
TARGET NO. 2 (C&GS)

1927 N.A.D.

USC&GS, 1936
J.E. Kallbrier, 1962

Book: PH 858

32 112 3 - 1021
Described in U.S. Coast and Geodetic Survey Special Publication
No. 224, page 142 and in USGS Level Line No. 1, Poso Redondo Quad.
by J.G. Ransom 1930.

Note by JEK, 1962: Station found as described. STAMPED "R 26 1930"

No reference marks set.

No signal at station.

Image point No. 1: Center double bush, 135 ft. from station mark in
azimuth $200^{\circ}24'18''$.

Image point No. 2: Center bush, 128 ft. from station mark in azimuth
 $63^{\circ}28'28''$. X=247,351. Y=458,180.

Image point No. 3: Center bush, 11 ft. from station mark in azimuth
 $277^{\circ}52'40''$.

Photo No. 3-189

ARIZONA ZONE CENTRAL
*X= 247,465.57
Y= 458,236.09

016
Elevation: 1800.285 ft.
(Levels by J.G. Ransom, 1930)

*Latitude: $32^{\circ}15'25.84''$

Longitude: $112^{\circ}44'00.93''$

* = Values by C&GS and no check on this position.

OK
SD 3/86

4/30/62 lcl *lram*

FILE COPY

Arizona (77)

Pima County

1-113 A

1927 N.A.D. (Unadj.)

H.R. Poulsen, 1962

Book: PH 858

Located about 26 mi. NW. of Tracy's Trading Post, 17.5 mi. NNE. of Rocky Point Junction, and 17 mi. NE. of Ajo, on rock ridge just NW. of high rock outcropping.

Station mark: Natural ground on N. side of iron reinforcing rod. It is on rocky outcropping.

Signal: White flag over red cross-target on 2 x 2 pole centered over station mark.

Signal data:	TWF	11.0 ft.
	BWF	8.0
	TRXT	7.2
	BRXT	4.6

Image point No. 1: Center of small tree, 26 ft. from and 4.7 ft. lower than station mark in grid azimuth 225°06'37".

Image point No. 2: Small tree, 37.5 ft. from and 5.5 ft. lower than station mark in grid azimuth 267°36'52". X=280,911. Y=541,792.

Image point No. 3: Small tree, 26.5 ft. from and 5.3 ft. lower than station mark in grid azimuth 342°37'40".

Photo No. 1-113

ARIZONA ZONE CENTRAL
X= 280,874.
Y= 541,790.

V.A. Elevation: 2825 ft.

Grid Values

<u>To Station</u>	<u>Azimuth</u>	<u>Back Azimuth</u>	<u>Feet</u>
5-240 D	00°06'30"	180°06'30"	18,710.
Papago	79 00 51	259 00 51	35,374.

Station = 1-113 A

State Plane Zone = 202

Lat = 32 29 14.9953

Lon = 112 37 38.3562

X = 280,874.0000

Y = 541,790.0000

NAD 83 VALUES AVAILABLE

4/30/62 lcl *lcl*

FILE COPY

Arizona (77)

Pima County

4-142 A

1927 N.A.D. (Unadj.)

W.H. Kline, 1962

Book: PH 858

Located about 14 mi. E. of Ajo and about 10 mi. NE. of Rocky Point Junction. Situated in a group of low hills in the N. central portion of the Sikort Chuapo Mountains, about 120 ft. W. of the main top and about 10 ft. lower than top.

Station reached by helicopter.

Station mark: 3/4 in. drill hole in a rock outcrop projecting 0.8 ft. above ground.

No reference marks set.

Signal: White flag over red cross-target on a 2 x 2 x 8 ft. pole centered over the station mark.

Signal data:	TWF	11.1 ft.
	TRXT	7.7
	BRXT	5.1

Image point No. 1: Center of tree, 39 ft. from and 1 ft. higher than station mark in grid azimuth 160°08'30".

Image point No. 2: Center of tree, 61 ft. from station mark in grid azimuth 264°48'11". X=282,549. Y=496,845.

Image point No. 3: Center of tree, 15 ft. from and 1.1 ft. higher than station mark in grid azimuth 334°09'47".

Photo No. 4-106

ARIZONA ZONE CENTRAL
X= 282,488.
Y= 496,839.

V.A. Elevation: 2740 ft.

Grid Values

<u>To Station</u>	<u>Azimuth</u>	<u>Back Azimuth</u>	<u>Feet</u>
Childs (C&GS)	57°36'51"	237°36'51"	34,641.
Papago	136 26 16	316 26 16	52,731.

Station = 4-142 A	State Plane Zone = 202
Lat = 32 21 50.2932	Lon = 112 37 16.0537
X = 282,488.0000	Y = 496,839.0000

1c1 *JKM*

NAD 83 VALUES AVAILABLE

FILE COPY

Arizona (77)

Pima County

5-240 D

1927 N.A.D. (Unadj.)

L.B. Mansfield, 1962

Book: PH 858

Located about 15 mi. NE. of Ajo and 3 mi. SW. of the highest point of Coffee Pot Mountain. Station is on the highest point of a prominent butte in a range of small buttes at the NE. edge of Poso Redondo Valley.

Station reached by helicopter.

Station mark: Cloth on rock in cairn.

Signal: White flag over red cross-target on pole centered over station mark.

Signal data:	TWF	11.0 ft.
	BWF	8.0
	TRXT	7.1
	BRXT	4.5

Photo No. Paneled

ARIZONA ZONE CENTRAL

V.A. Elevation: 3363 ft.

X= 280,839.

Y= 523,080.

Grid Values

<u>To Station</u>	<u>Azimuth</u>	<u>Back Azimuth</u>	<u>Feet</u>
Childs (C&GS)	31°38'32"	211°38'32"	52,618.
Papago	109 02 10	289 02 10	36,697.

Station = 5-240 D

State Plane Zone = 202

Lat = 32 26 09.8514

Lon = 112 37 37.3112

X = 280,839.0000

Y = 523,080.0000

NAD 83 VALUES AVAILABLE

4/27/62 lcl *lmm*

FILE COPY