WITTHOUN TOO

NAME	STATION	<u>NAME</u>	STATION
₩ PALM	1001	∨ HIGH	1034
▼ BERT + BERT 3	1002	V PORT	1035
NOLE	1003	▼ GOODYEAR	1036
V PLAD PLAD 2	1004 1	V GOODYEAR 2	1036 1048
V SEAM	1005	V CHANDLER OLD MUNICIPAL WATER TK. V CHANDLER NEW MUNICIPAL WATER TK.	Total Control of the
✓ GOLF	1006	A STATE OF THE PARTY OF THE PAR	1050
V PAPAGO	1007	V RNG PHOENIX TX	1000
VGUN	1008	✓ PHOENIX PRODUCERS COTTON OIL CO	1051
✓ BATON	1009	WATER TANK	Salahan Caranga
V CURB	1010	✓ PHOENIX CUDAHY PACKING CO W. T. ✓ PHOENIX RADIO STA KOOL S. MAST	1052 1053
VY SCOTT & SCOTT 2	1011	V SCOTTEDALE MOTOROLA WATER TANK	1054
✓ MEAT Destroyed	1012	✓ GOVERNOR HUNTS TOMB	1055
VHAYDEN V ROLA - ROLA Z	1013	TEMPE SALT RIVER PROJ. RADIO MAST	
	1014	MESA MUNICIPAL WATER TANK NO. 1	1057
Y PIMA GRIND	1016	✓ MESA MUNICIPAL WATER TANK NO 2	1058
BARK	1017	V MESA HUNICIPAL WATER TANK NO 3	1059
	1018	✓ FALFA	1063
VBALZ V FINCH	1019	V MESA	1067
VLEHI	1020	V RAY	1070
VVAL VISTA	1021	WHITEM	1076
VSTUART	1022	V PHOENIX TUCSON AIRWAY BCN O	1078
✓ GRAM	1023	VINOLETER IDODOM RIMMAL DOM O	1010
WGANZ & Ganz 2	1024		
VVGOMEZ - GOMEZ 2	1025		
VHUMM, HUMM 2, NUMM 1963 AZ MK	1026		
V TEMPE BUTTE	1027		
✓ THMPE SALT RIVER PROJ. RADIO TO			
V TEMPE BUTTE AIRWAY BEACON	1029		
✓ RURAL	1030		
VTT U 8 (AMS)	1030		
✓ BELL BUTTE (AMS)	1031		
✓ ANCELO	1032		
JGUADALUPE RADIO STA.KUPD CENTER			
MAST	1033		-
VHIGH	1034		33
	17 - 17 - 17 - 17		

JULY 1966
U. S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY
REVISED MAR 1972

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM

R

# ARIZONA

168B

QUAD 331113 STATION 1001 ARIZ LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

330151

# DESCRIPTION OF A PROMULATION TRAVERSE

HAME OF STATION: PAIM

STATE: Arizona
YEAR: 1963

COUNTY: Maricopa

CHIEF OF PARTY: C.A. Annie

. Annie YEAR:

DESCRIBED BY: R. P.K.

1b 7a	SURFACE-STATION MARK, UNDERGROUND-STATION MARK	DISTANCES AND DIRI	HICH CAN E	O AZIMUTH MAR SE SEEN PROM	K, REFERENCE THE GROUND AT	MARKS AND P	ROMHENT
	OBJECT		BEARING	DIST	TANCE	-	TIONI
				PEET	METERS	BINE	THUM
	STRONG 1962		1	1		00 00	00.00
	Phoenix, KTAR Radi	o Towar	(NW)	approx.	1 1/2 m.		56.1
lb	R.M. No. 1		N	15.26	113.798 :	91 46	11
osc.	TT 0 3 (AMS) (Azim	uth Mark)	N	approx	0.45 mile		51.8
	Phoenix, KOOL Radi						

Station is located about 4.5 miles east of Phoenix, about 0.45 mile south of Fast Mc Dowell Road and on the west right-of-way of North 40th

To reach from the junction of East Mc Dowell Road and North 40th Estreet in the east section of Fhoenix, go south on North 40th Street zfor 0.45 mile to station on right as described.

Station mark, a standard traverse disk stamped PALM 1963, is set in the top of a concrete cylinder which is set flush with the surface of the ground. The mark is 46 feet south-southwest of a power and telephone pole with a transformer, 30 feet west of center of North 40th Street, 4 feet southeast of the witness post and 2 feet east of fence.

Reference mark 1, a standard reference disk stamped PALM NO 1 1963, is set in the top of a concrete cylinder which is set flush with the ground. The mark is \$1.5\$ feet north of the witness post, 31 feet west of center of North 40th Street, 7 feet west of power and telephone pole and 1.5 feet east of fence.

Reference mark 2, a standard reference disk stamped PALM NO 2 1963, is set in the top of a concrete cylinder which projects about 1 inch above the ground. The mark is 56 feet south of the witness post, 31 feet west of center of North 40th Street, 7 feet west of a telephone pole and 1.5 feet east of the fence.

Azimuth mark, is a Corps. of Engineers Army Map Service mark. The mark is a bronze disk stamped TT Q3 1948 and is set in a drill hole in the north end of a irrigation gate which is located in the southeast corner of intersection at East Mc Dowell Road and North 40th Street. The mark is 28.5 feet south of the center of East Mc Dowell Road and 28 feet east of the center of North 40th Street.

### RECOVERY NOTE, TRIANGULATION STATION

NAME OF STATION: PALM

ESTABLISHED BY: C.A.A. YEAR: 1963 STATE: AFIZORA

RECOVERED BY: L.F. Smith YEAR: 1970 COUNTY: Maricopa

AIRLINE DISTANCE AND DIRECTION FROM NEAREST TOWN: 11 1/2 miles east of Phoenix Height of telescope above station mark 5 Feet.

MEIGHT OF LIGHT ABOVE STATION MARK 5 FEET.

OBJECT		Dis	TANCE			
OBJECT	BEARING	PRET	METERS	1	DIRECT	THOM
Phoenix, KTAR Radio Tower 1963 (south 1 of 2)(approx. 1 1/2 miles RM 1 Azimuth mark (1970)(0.25 mile) RM 2 RM 1 to RM 2	II II N S	45.26 54.36 99.60	13.795 16.569 (30.358)	0 19 24 200	00 32 08 20	000 40 42.4 52

The station mark and refrence marks 1 and 2 were recovered as described and found in good condition. The azimuth mark was distroyed during construction along 40th Street. A new azimuth mark was established at this time.

### ADJUSTED HORIZONTAL CONTROL DATA

NAME OF STATION: PALM

YEAR: 1963

STATE: APIZONA

LOCALITY: Arizona Hwy. Survey, Papago Freeway

First -onces Traverse

scunce: G-13304

FIELD EXETCH: AP12. 50

GRID DATA	COORDINATES (Feet)	PLANE AZIMUTH #IOR da) ANGLE	MARK
STATE: APIZ. ZONE: C CODE: 0202	476,251.79 y 894,585.21	- 0 02 35	AZIMUTH MARK = TT Q 3 AMS ' AZIMUTH MARK 1970
STATE: ZONE: CODE:	y y		

LATITUDE: 33° 27' 33".1367 NOR: LONGITUDE: 111 59 40.3226 WEST				
			351.09 151.9	
TO STATION	GEODETIC AZIM	UTH	DISTA (Met)	
= TT Q 3 AMS 1970	THIRD-ORDE 182°51'24' 185 17 04	R \ 9 \ .7		
	= TT Q 3 AMS	(From south)	THIRD-ORDER \ 182°51'24"9 \	(From south) (Mail

The azimuth mark is stamped, PALM 1963 1970. It is set in a drill hole in the east curb of 40th Street at the intersection of Bolleview Street, 39 feet east of the center line of 40th Street, 27 feet south of the center line of Belleview Street, 7 feet south of the north end of the curb and 2feet southeast of a lamp pole.

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1972

USCOMM-NOAA-ASHEVILLE

HEALTH INTELLER

JULY 1966 U.S. DEPARTMENT OF COMMERCE ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION COAST AND GEODETIC SURVEY REVISED MAR 1972

# HORIZONTAL CONTROL DATA

Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM

331113 STATION 1002 -1002A LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

111045

### DESCRIPTION OF TRIANGULATION STATION

TRAVERSE

HAME OF STATION: REST

STATE: Arizona

COUNTY: Maricons

CHIEF OF PARTY: C.A. Annis

YEAR: 1953

DESCRIBED BY: H.D. Ellis

lb	SURFACE-STATION MARK, UNDERGROUND-STATION MARK	CES AND DIRECTIONS T OBJECTS WHICH CAN	O AZIMUTH MAR BE SEEN FROM	K, REFERENCE THE GROUND AT	MARKS .	AND PRI	MHEHT
7a.	DBUECT	BEARIN	DIST	ANCE		DIRECTI	mut.
		O E AMIA	PERT	METERS		OINEC I	OH,
	, NOTE				ő	00	00.0
16b -	R.M. No. 2 Azimuth Fark 1/4 Corner (Phoenix City Su	W	57.14 approx. 0	17.410	190 268 268	09 13	04

The station is located about 5 miles east of the center of Phoenix and about 1/2 mile south of East Kc Dowell Road on the east right-of-way of North 44th Street.

To reach the station from the intersection of East Mc Dowell Road and North 44th Street(azimuth mark in the southwest corner of intersection as described), go south on North With Street for 0.45 mile to the station on left.

Station, a standard traverse disk set in the top of a round concrete post which projects 1 inch and stamped SERT 1963. The mark is 22 feet east of center of North 44th Street, 12 feet southwest of center of manhole cover, 4.3 feet north of a power pole and 3.3 feet south of witness post.

Reference mark 1, a standard reference disk set in the top of a round concrete post which projects 1 inch and stamped SERT NO 1 1963. The mark is 58 feet north of a power pole, 50.4 feet north of witness post, 47 feet north-northwest of center of manhole cover and 20 feet east of center of North 44th Street.

Peference mark 2, a standard reference disk set in a drill hole in the west wingwall of the south end of culvert. The mark is 63 feet west of witness post, 16 feet east of fence and 8 feet south of center of driveway.

Azimuth mark, a standard azimuth disk set in the top of a round concrete post which is flush and stamped BERT 1963. The mark is 46 feet south of the center of East Mc Dowell Road, 25 feet west of center of North 44th Street, 7 feet east of east edge of canal and 2.4 feet southeast of witness post.

1/4 Corner, is a Phoenix City Survey Hark located in the center of the intersection of East Mc Dowell Road and 44th Street. Station is a 3 inch bronze disk set in concrete with punch hole in center about 3 inches below the surface of the street and is under a round metal handhole cover.

RECOVERY NOTE, TRIANGULATION STATION

NAME OF STATION: BERT ESTABLISHED BY: C.A.A.

VEAR: 1963 STATE: AFIZONA RECOVERED BY: Ariz. Hwy. Dept. YEAR: 1967 COUNTY: Maricopa

BEHCH MARK ALSO

AIRLINE DISTANCE AND DIRECTION FROM NEAREST TOWN:

HEIGHT OF TELESCOPE ABOVE STATION MARK

HEIGHT OF LIGHT ABOVE STATION MARK

QBJECT	DEARING	Ots.	TANCE					
	DEMING	PEET	METERS		DIREC	TION		
NOLE 1963 BERT 3 RM 5 1967	E NE	68.10	(20.757)	0 297	00	00.0		

Station BERT 1963, reference marks 1 & 2, along with station BERT 2 1966 and its two reference marks were found in good condition. New construction on North 44th Street is now in progress and all of these marks will be destroyed shortly.

The azimuth mark was also visited and found in good condition, but is in construction zone. The mark was not moved at this time. It is not visible from the new station BERT 3 1967.

BERT 3 1967 was set on line between stations BERT 1963 and NOLE 1963. Reference marks 5 and 6 were also set at this time.

NOTE: According to records in the Rockville office no computations or description have been received for station BERT 2 1966.

ADJUSTED HORIZONTAL CONTROL DATA

NAME OF STATION: BERT

YEAR: 1963

STATE: Arizona

LOCALITY: Arizona Hwy. Survey, Papago Freeway

First -ORDER Traverse

SCURCE: G-13304

FIELD SKETCH: AP12. 50

GRID	DATA	Co	ORDINATES (Feet)		IE AZH ΔαΙ ΑΙ				MARK	16	
STATE: ZONE: CODE:	Ariz. C 0202	y	478,746.60 894,598.17	179° - 0	031 02	52 <sup>n</sup> \	HTUMISA	MARK	1		
STATE: ZONE: CODE:		y							Ti		

AZIMUTH MARK IS A BENCH MARK SECONDS IN METERS POSITION ELEVATION GEODETIC 33° 27' 33",2824 LATITUDE: DATA METERS LONGITUDE: 111 59 10.8743 WEST FEET GEODETIC AZIMUTH DISTANCE TO STATION (Material) SECOND-ORDER AZIMUTH MARK 179 01 33 7

ADJUSTED HORIZONTAL CONTROL DATA

NAME OF STATION: BERT 2

STATE ARIZONA

YEAR 1966

FIRST - DROER

LOCALITY ARIZONA HAY. SURVEY, PAPAGO FREEWAY

sounce:G-10749

FIELD SKETCH

(NO OBSERVATIONAL CHECK ON THIS POSITION)

GEODETIC LATITUDE 33 27 33.27875 ELEVATION 355.31 METERS GEOGETIC LONGITUDEL 1165.7 reer 111 59 10.57030

	(Fet)			
STATE a 20HE	5005		- v	FIOR A HE ANGLE
ARIZ. C	0505	478,772.35	894,597.78	- 0 02 18

TO STATION OR OBJECT	GEODETIC AZIMUTH	PLANE AZINUTH (Free jacib)	COOE
NOLE	270 48 14.2	270 50 32	0505
POSITION DETERMINED BY TRAVERSE PRO	M STATION BERT	3	

1972

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I USCOMM-NOAA-ASHEVILLE

U.S. DEPARTMENT OF COMMERCE **ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION** COAST AND GEODETIC SURVEY

# HORIZONTAL CONTROL DATA

Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM

QUAD 331113 STATION 1002P ARIZ 33°00 1 TO TONGITUDE 111030 , 10 115000 DIAGRAM NI 12-8 MESA

### U.S. DEPARTMENT OF COMMERCE **DESCRIPTION OF TRIANGULATION STATION**

NAME OF STATION: BERT 3

STATE: AFIZODA

COUNTY: Maricopa

CHIEF OF PARTY: Ariz. Hwy. Dept. YEAR: 1967

MARCH 1972

DESCRIBED BY:

SURFACE-STATION MARK, UNDERGROUND-STATION MARK	DISTANCES AND DIRECTIONS TO OBJECTS WHICH CAN B	E SEEN PROM	K, REPERENCE : THE GROUND AT	THE STA	HD PRO LTION	쁴
OBJECT	BEARING	DIST	ANCE		MECTIC	~
OBJECT	BENNING	PERT	METERS		SHEC 110	211
					•	
NOLE 1963	E			0	00	-
BERT 3 RM 6 1967	W			173	00	
BERT 1963	W	28.85	(8.793)	180	00	i
BERT 3 RM 5 1967	N	60.61	(18.474)	272	09	- 2

The station is located about 5 miles east of the center of Phoenix and about 0.5 mile south of the intersection of East McDowell Road and North with Street aon the east right-of-way of North With Street.

To reach the station from the intersection of East McDowell Road and North 44th Street, go south on North 44th Street for 0.45 mile to the station on left as described.

The station mark is a standard disk stamped " BERT 3 RESET 1967 BM " and is set in the top of a circular concrete monument flush with the ground. It is 50.85 feet east of the center line of North 44th Street, 13.2 fuet north of the middle palm tree in a row of five and is 6.08 feet north-northeast of a metal witness post.

Reference mark 5 is a standard reference mark disk stamped "BERT 3 NO 5 1967" and is set in the top of a round concrete monument flush with the ground. It is located 54.29 feet east of the center line of North With Street and 11.70 feet north-northeast of the second palm tree from the north in a row of five.

Reference mark 6 is a standard reference mark disk stamped "BERT 3 NO 6 1967" and is set in the top of a round concrete monument flush with the ground. It is 81.45 feet west of the center line of North 14th Street, 24,35 feet south of the center line of a private road leading west off North With Street and is directly across the street from the station mark.

No azimuth mark was set.

### RECOVERY NOTE, TRIANGULATION STATION

R

ESTABLISHED BY: Ariz. HWY Dept. YEAR: 1967 STATE: Arizona BENCH MARK ALSO RECOVERED BY: L.F. Smith YEAR: 1971 COUNTY: Maricopa AIRLINE DISTANCE AND DIRECTION FROM NEAREST TOWN: At Phoenix

HEIGHT OF TELESCOPE ABOVE STATION MARK 5 FEET. HEIGHT OF LIGHT ABOVE STATION MARK & FEET.

DISTANCES AND DIRECTIONS TO AZIMUTH MARK, REFE FROM THE GROU	RENCE MA	RKS AND PROM: E STATION	HENT OBJECTS W	HICH CAL	4 OE SE	EN
	. 17	DIS	TANCE			-
OBJECT	BEARING	PRET	METERS		DIRECT	ION
NOLE 1963 Phoenix, Cudahy Packing Co. Water Phoenix, Productors Cotton Oil Co. Mt 6 (BERT 3) BERT 2 (traverse) RM 1 (BERT 2 1966) RM 5 (BERT 3)	Tank Wate W W N	1 mile s Tank (1 not meas (3.089) 60.37 60.605	mile SE)	0 64 65 173 179 266 272	0b 12 40 00 52 50	00.0 10.5 31.8 53 57 29

The station mark, reference marks 5 and 6, BERT 2 1966 and BERT 2 reference mark 1 were recovered and found in good condition. The station was occupied at this time and a traverse was made to BERT 2 1966.

The station is along the east side of With Street, 0.45 mile south of East McDowell Road.

HAME OF STATION: BERT 3

ESSA FORM 76-JIA

ADJUSTED HORIZONTAL CONTROL DATA

OBS BY A H D

NAME OF STATION. STATE ARIZONA

BERT 3

1967 YEAR:

FIRST -capes

ARIZONA HWY SURVEY, PAPAGO FREEWAY

6-10749 SOURCE (NO OBSERVATIONAL CHECK ON THIS POSITION)

33 27 33.27839 355.34 MERCOR GEOGETIC LONGITUDE 111 59 10.53384 1165.8

STATE COORDINATES (Fint)							
STATE & ZONE	coot	я	Y	B OR A O ANGLE			
ARIZ C	0202	478,775.44	894,597,74	- 0 02 18			

TO STATION OR OBJECT	GEODETIC AZIMUTH	PLANE AZIMUTH	COOE		
NOLE	270 48 15.4	270 50 33	0202		
			,		

POSITION DETERMINED BY TRAVERSE FROM STATION BERT

The station mark is a standard disk stamped, BERT 3 BH RESET 1967. It is sot in the top of a concrete monument which is about flush with the ground surface. It is 13 feet north of the 3rd 1 of 5 palm trees and 3 1/2 feet east of the sidowalk.

Reference mark 5 is a standard disk stamped, BERT 3 NO 5 1967. It is set in the top of a concrete monument which is about flush with the ground surface. It is 12 feet north of the 4th 1 of 5 palm trees and 7 feet east of the sidewalk.

Reference mark 6 is a standard disk stamped, BERT 3 NO 6 1967. It is set in the top of a concrete monument which projects about & inches. It is 81 feet west of the center line of blith Street and 24 feet south of a private driveway.

BERT 2 1966 reference mark 1 is a standard disk stamped, BERT 2 NO 1 1966. It is set in the top of a concrete monument which is flush with the ground surface. It is 13 feet north of the 4th palm tree and 1/2 foot east of the sidewalk.

BERT 2 1966 is a standard disk which is set in the top of a concrete monument. It is 13 feet north of the 3rd palm tree and 1/2 foot east of the sidewalk.

Note; The disk will be removed from BERT 2 1966 in the near future.

JULY 1966
PUBLISHED AND PRINTED BY:
U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
WASHINGTON D.C.

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM

HAME OF STATION: NOTE

First -ORDER Traverse

STATE: Arizona

ARIZONA

LOCALITY: Arizona Hwy. Survey, Papago Freeway

168c

QUAD 331113 STATION 1003 ARIZ LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

330 15'

YEAR: 1963

FIELD SKETCH: AP1Z. 50

#### U.S. DEPARTMENT OF COMMERCE COAST AND SEGUETIC SURVEY

### DESCRIPTION OF TRIANGULATION STATION

TRAVERSE

STATE: Arlzone

Maricopa

CHIEF OF PARTY C. A. Annis

HAME OF STATION: NOLE

YEAR: 1963

DESCRIBED BY: G. A. Jahn of

COUNTY:

							,
HEIGHT OF TELESCOPE ABOVE ST	TATION MARK 1.6 MET	ters.t H	EIGHT OF LIGHT	T ABOVE STATE	OH MAR	K	METERS.
SURFACE-STATION MARK, UNDERGROUND-STATION MARK							MINENT
0.000	DISTANCE		ANCE			iow!	
OBSECT		DENNING	PERT	HETERS	1	DIRECTI	ORI
BERT					ō	00	იი.წი
Azimuth Mark		(n)	Approx. (	.3 mile	91	22	10:20
R. M. No. 1		(E)	37.58	11.454	179	59	08 1
		(s)·		11.135	269	20	25
		` ′			_ `_		-
					ļ		
	SURFACE-STATION MARK, UNDERGROUND-STATION MARK OBJECT BERT	SURFACE-STATION MARK, DISTANCES AND DIRECT WHO OBJECTS WHO OBJECTS WHO OBJECTS WHO OBJECT AZIMUTH Mark R. M. No. 1	SURFACE-STATION MARK, UNDERGROUND-STATION MARK OBJECTS WHICH CAN B  OBJECT  BEARING  Azimuth Mark  R. M. No. 1  STANCES AND DIRECTIONS TO OBJECTS WHICH CAN B  (N)  (E)	OBJECT OBJECTS WHICH CAN BE SEEN FROM TO AZIMUTH MARK OBJECT OBJECTS WHICH CAN BE SEEN FROM TO OBJECT OBJECTS WHICH CAN BE SEEN FROM TO FRETT  Azimuth Mark R. M. No. 1 (E) 37.58	SURFACE-STATION MARK, DISTANCES AND DIRECTIONS TO AZIMUTH MARK, REFERENCE OBJECTS WHICH CAN BE SEEN FROM THE GROUND AT OBJECTS WHICH CAN BE SEEN FROM THE GROUND AT DISTANCE FERT METERS  AZIMUTH Mark R. M. No. 1  DISTANCE FERT (I) Approx. 0.3 mile 11.454	Azimuth Mark R. M. No. 1  DISTANCES AND DIRECTIONS TO AZIMUTH MARK, REFERENCE MARKS OBJECTS WHICH CAM BE SEEN FROM THE GROUND AT THE STOWN AT THE ST	OBJECTS WHICH CAN BE SEEN PROM THE GROUND AT THE STATION  OBJECT  BEARING  DISTANCE  HETERS  AZIEUTH Mark  R. M. No. 1  OBJECTS WHICH CAN BE SEEN PROM THE GROUND AT THE STATION  DISTANCE  DISTANCE  HETERS  OBJECTS WHICH CAN BE SEEN PROM THE GROUND AT THE STATION  DISTANCE  DISTANCE  HETERS  OBJECTS WHICH CAN BE SEEN PROM THE GROUND AT THE STATION  DISTANCE  DISTANCE  DISTANCE  OBJECTS WHICH CAN BE SEEN PROM THE GROUND AT THE STATION  DISTANCE  DISTANCE  HETERS  OBJECTS WHICH CAN BE SEEN PROM THE GROUND AT THE STATION  DISTANCE  DISTANCE  DISTANCE  OBJECTS  WHICH CAN BE SEEN PROM THE GROUND AT THE STATION  DISTANCE  DISTANCE  DISTANCE  OBJECTS  DISTANCE  DISTANCE  OBJECTS  DISTANCE  DISTANCE  OBJECTS  DISTANCE  DISTANCE  DISTANCE  OBJECTS  DISTANCE  DISTANCE  DISTANCE  OBJECTS  DISTANCE  DISTANCE

The station is located about 5 1/2 miles northeast of the center of Phoenix, 1/2 mile south of East Mc Dowell Road, on the west right-of-way of North 46th Street, and at the south edge of the Lone Palm Trailer Park.

To reach the station from the intersection of East Mc Dowell Road and North 46th Street, go south on North 46th Street for 0.15 mile to azimuth mark on right as described, continue south on North 46th Street for 0.5 mile to station on right as described.

Station mark, a standard traverse disk set in the top of a round concrete post which projects about 2 inches and is stamped NOLE 1965. The mark is 20 feet went of the center of North 46th Street, 19 feet south of the center of a five, 6 feet south-east of a fence corner, 2 feet east of a fence, and 1.4 feet southeast of a witness post.

Reference mark 1, a standard reference disk set in the top of a round concrete post which projects about 2 inches and is stamped NOLE NO 1 1963. The mark is 51 feet north of a power pole, 39.7 feet east of a witness post, and 17 feet east of the center of North 46th Street.

Reference Mark 2, a stendard reference disk set in the top of a round concrete post which projects 1 inch and is stamped NOLE NO 2 1965. The mark is 42 feet west of a power pole, 39.5 feet south of a witness post, 20 feet west of the center of North 46th Street, and 2.5 feet east of a fence.

Azimuth mark, a stendard azimuth disk set in a drill hole in the southwest corner of the headwall of the west gate of an underground irrigation duct and is stamped NOLE 1963. The mark is 52 feet west of the center of North 46th Street, 16 feet west of a water hydrant, and 5 feet southeast of a fance corner.

GRID DATA COORDINATES (Feet) PLANE AZIMUTH GOR San ANGLE

STATE: AT1Z. x 480,033.46 \ 182" 12" 44" AZIMUTH MARK

ZONE: C y 894,579.24 - 0 02 10

STATE: z z zone: y Code: y 7

ADJUSTED HORIZONTAL CONTROL DATA

SCURCE: 0-13304

	POSITION	SECONDS IN METERS	ELEVATION
DATA	LATITUDE: 33° 27' 33",1034 NORTH LONGITUDE: 111 58 55.6840 WEST		358.35, METER: 1175.7 FEET AZ. Mk.=B.M.
	TO STATION	GEODETIC AZIM (From eouth)	
AZIMUTH MAR	K'	SECOND-ORI 182*10'3	BER 545
D PR4 281 (7-22-88)		<u> </u>	UBCOMMODE ISSAUL

\*Refers to notes in monals of trinagalories and state publications of trinagalories. Direction-nagle measured clockwise, referred to initial atation.

1To neuron meter only, when no triponometric leveling is being done.

FILE COPY

JULY 1966 PUBLISHED AND PRINTED BY: U.S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY WASHINGTON D.C. REVISED APR 1971

# HORIZONTAL CONTROL DATA

Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM

QUAD 331113 STATION 1004 ARIZ LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

### U.S. DEPARTMENT OF COMMERCE

### DESCRIPTION OF TRIANGULATION STATION

HAME OF STATION: PLAD

TRAVERSE STATE: Arizona

COUNTY: Maricons

CHIEF OF PARTY: C. A. Annis YEAR: 1963

DESCRIBED BY: G. A. John

	SUMFACE-STATION MARK, UNDERGROUND-STATION MARK	AZIMUTH MARK E SEEN PROM T				THINENT		
		OBJECT BEARING DISTANCE		DIRECTIONS		mu*		
-	OBSECT		BEARING	PEET	METERS		DINECT	, one
-	SEAM					đ	00 1	00,00
desc	Azimuth Mark		SW 1	Approx. C	.15 mile	119	48	12,19
115	R. M. No. 2		W 1	42.94	13.089	178	32	10 -
11b	R. M. No. 1		E -	37.76		359	04	50 -

The station is located about 6 miles east-northeast of the center of Phoenix, 1/2 mile south of East McDowell Road, about 250 feet east of North 48th Street, and on the south side of East Roosevelt Street.

Station mark, a standard traverse disk set in the top of a round concrete post which projects about 1 inch from the ground and is stamped PLAD 1965. The mark is 55 feet southeast of the center of a gate, 24 feet east of a lone tree, 23 feet south of the center of East Roosevelt Street, and 3.4 feet southeast of a witness post.

Reference mark 1, a standard reference disk set in the top of a round concrete rost which projects about 1 inch from the ground and is stamped PLAD NO 1 1965. The mark is 49 feet south-southwest of power pole number 4830, 40.7 feet east of the witness post, and 25 feet south of the center of East Roosevelt Street.

Reference mark 2, a stendard reference disk set in the top of a round concrete post which projects about 2 inches from the ground and is stamped FLAD NO 2 1965. The mark is 50 feet south-southwest of the center of a gate, 40 feet west of a witness post, 25 feet south of the center of East Roosevelt Street, and 18 feet west of a lone tree.

Azimuth mark, a standard azimuth disk set in a drill hole in the west curb of North 48th Street and is stamped PLAD 1963. The mark is 35 feet east of the northeast corner of house number 814, 27 feet west of the center of North 48th Street, and 6 feet south of the center of a drive.

To reach the azimuth from the station, go west on East Roosevelt Street for C.05 mile to North 48th Street, turn left and go south on North 48th Street for C.1 mile to szimuth mark on the right as described.

### U.S. DEPARTMENT OF CONNERCE - COAST AND GEOGRIC SURVEY RECOVERY NOTE, TRIANGULATION STATION

R

Oued. 331113

NAME OF STATION: PLAD

Established by: C. A. Annis Year: 1963 State: Arizona

RECOVERED BY: Arizona YEAR: 1966 County: Maricopa

Highway Department
Detailed Matement as to the fitness of the original description, including marks found, stampings, changes made, and other pertinent facts: The station mark, reference mark 1, reference mark 2, and the azimuth mark were recovered by the Arizona State Highway Department and found to be in good condition. It was determined by the highway department that the station mark and reference marks 1 and 2 would soon be destroyed by Interstate Highway construction, so they established PLAD 2, with new reference marks, and destroyed all of the original marks with the exception of the azimuth mark. The azimuth mark was incorporated into the new station.

The original station mark and reference mark 1 and 2 disks were returned to the Los Angeles Field office by the Arizona State Highway Department.

ADJUSTED HORIZONTAL CONTROL DATA

NAME OF STATION: PLAD

YEAR1963

STATE: APIZONA

LOCALITY Arizona Hwy, Survey, Papago Freeway

First -ORDER Traverse

SCIURCE: 0-13304

FIELD SKETCH: AP12. 50

GRID DATA	COORDINATES (Feet)	PLANE AZIMUTH HOR del ANGLE	MARK
ZONE: C COOK: 0202	2 481,710.57 7 894,238.01	29° 36' 48" 1 - 0 01 59	AZIMUTH MARK
STATE: ZONE: CODE:	у		

	POSITION		SECONDS IN METERS		ELEVATION
GEODETIC DATA	LATITUDE: 33° 27' 29"7371 LONGITUDE:111 58 35.8852	HORTH		Az. B.M	Mk. = WETER
	TO STATION		GEODETIC AZIN		DISTANCE (Metere)
AZIMUTH MAR	K		SECOND-OR 29"3414		
ORM 201 17-12-00			L		UICOMADE INILA

J. L. Gummow

ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION COAST AND GEODETIC SURVEY

> 334 151 111045

# HORIZONTAL CONTROL DATA

Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM

QUAD 331113 STATION 1004A ARIZ 33 " 00' TO 33 "30" LATITUDE EONGITUDE 111 930' TO 112 900' DIAGRAM NI 12-8 MESA

DESCRIPTION OF TRIANGULATION STATION

Quad. 331113

NAME OF STATION: PLAD 2

STATE: Arizona

Maricopa

c	HIEF OF	PARTY: P. A. Weber YEAR	19	56	Des	cribed bys 🗓 .	L.G.		
1	NOTE,*	HEIGHT OF TELESCOPE ABOVE STATION WARK 1	METER			TATE SYDEN THES			
ł	1D Surface-station mark, DISTANCES AND DIRECTIONS TO AZIMUTH MARK, REFERENCE MARKS AND PROMINENT OBJECTS  7 B Underground-station mark WHICH CAN BE SEEN FROM THE GROUND AT THE STATION								
Н	7 60	OBJECT		BEARING	DIST	LNCE	DIRECTION:		
4		OBJECT		- DEMARTITUE	foot	meters			
1	Desc	PLAD Azimuth Mark, 1963		SW	0.15	mile	0.00 00.0		
ı	11b	R.M. 2		WNW	35.665	(10.871)	60 27 40		
ı	11b	R.M. 1		ESE	45.120	(13.753)	240 21 29		
ı				)					

The station is located 6 miles east-northeast of the center of Phoenix, 1/2 mile south of East McDowell Road, about 250 feet east of North 48th Street, and on the south side of East Roosevelt Street.

The station mark is a standard disk, stamped PLAD 2 1966, set in the top of a cylindrical concrete post which is 10 inches in dismeter and projects 4 inches above the surface of the ground. It is 5 feet east of a metal witness post with sign attached.

Reference mark 1, a standard disk stamped PLAD 2 NO 1 1966, is set in the top of a cylindrical concrete monument which is 10 inches in diameter and projects 3 inches above the surface of the ground.

Reference mark 2, a standard disk stamped PLAD 2 NO 2 1966, is set in the top of a cylindrical concrete monument which is 10 inches in diameter and projects 3 inches above the surface of the ground.

The azimuth mark is a standard disk, stamped PLAD 1963, cemented in a drill hole in the west curb of North 48th Street. It is 35 feet east of the northeast corner of house number 814, 27 feet west of the center of North 48th Street, and 6 feet south of the center of a

NOTE: This station was established by the Arizona State Highway Department and the above description was written from their notes.

\*Rafors to notes in manuals of triangulation and state publications of triangulation. | Direction-angle measured electroise, referred to initial station. | To measure motor only, when no trigonometric leveling to being done. | 16-2002-2 | 0. 1. overnount reasons on

### ADJUSTED HORIZONTAL CONTROL DATA

NAME OF STATION PLAD 2

OBS BY ARIZ H D

STATE ARTZONA

TEAR 1966

FIRST

ARIZONA HWY SURVEY PAPAGO FREEWAY

G-10749 NO OBSERVATIONAL CHECK ON THIS POSITION

STATE COORDINATÉS (Fert)							
STATE # ZONE	3000		7	\$ 108 A 61 ANGLE			
12. C.	0202	481,703.39	894,225.37	- 0 01 59			

\* PLANS ASSISTED HAS BEEN COMPUTED BY THE A 108  $\Delta$  41 FORMULA NECLECTING THE SECOND TERM

10 \$141/0% 0# 08/557	GEODETIC AZIMUTIO (From tooth)	PLANE AZIMUTH * (From tourly)	CODE
AZIMUTH MARK	29 34 49 4	29°36′49°	0202
			l i
			1

POSITION DETERMINED BY TRAVERSE FROM STATION PLAD

IAUG

USCOMM-NOAA-ASHEVILLE

95 005

JULY 1966
PUBLISHED AND PRINTED BY:
U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
WASHINGTON D.C.

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM QUAD 331113 STATION 1005 ARIZ LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

111 45

AZ 168 E

#0 RM 525

NAME OF STATION:

U.S. DEPARTMENT OF COMMERCE

### DESCRIPTION OF ANY MICHIGUE AND RESTATION

TRAVERSE

STATE Arizona

county: Maricopa

CHIEF OF PARTY: C.A. Annis

SEAM

YEAR: 1963

DESCRIBED BY: R. P.K.

HOTE,	1							
HOTE.	HEIGHT OF TELESCOPE ABOVE ST	TATION HARK 3.3 ME	TERS,1 H	EIGHT OF LIGH	T ABOVE STATE	DH MARK	- 3	METERS.
desc	SURFACE-STATION WARK, REFERENCE AND DIRECTIONS TO AZIMUTH MARK, REFERENCE OBJECTS WHICH CAN BE SEEN FROM THE GROUND AT						ND PI	CHINENT
	OBJECT		BEARING	DIST	DISTANCE		DIRECTIONS	
			ug-animg	PEST	METERS		THEC	IIUMI
llb desc	PAPAGO 196 R.M. No. 1 Phoenix, KOOL Radi (SI of Four) Azimuth Mark R.M. No. 2		E NW 1 NOW NOW	Approx. Approx. Approx. 45.19	12.786 1 1/2 m. 0.3 mile 13.772	253 291	33 20 18	12.2

Station is located about 6 miles east of the center of Phoenix, between North 52nd Street and North 53rd Street and on East Roosevelt Street.

To reach from the junction of East Mc Dowell Road and North 52nd Street in the east section of Phoenix, go south on North 52nd Street of 0.2 mile to the azimuth mark on left as described, continue south on North 52nd Street for 0.3 mile to East Roosevelt Street, turn left and go east on East Roosevelt Street for 0.1 mile to the station on left as described.

Station mark, is a standard traverse disk stamped SEAH 1963, is set in a drill hole in bedrock about 6 inches below the surface of the ground. The mark is 175.5 feet west-northwest of North 53rd Street and East Roosevelt Street sign post, 111 feet east-northeast of power pole with transformer No. 114, 39 feet north-northeast of power pole, 22.5 feet north of center of East Roosevelt Street and 4.7 feet north of witness post.

Reference mark 1, a standard reference disk stamped SEAH NO 1 1963, is set in the top of a concrete cylinder which projects about 3 inches. The mark is 42.4 feet east of the witness post, 24 feet north of center of East Roosevelt Street and 5.5 feet north of fence.

Reference mark 2, a standard reference disk stamped SEAH NO 2 1963, is set in the top of a concrete cylinder which is set flush with the surface of the ground. The mark is 64 feet north of the center of East Roossvelt Street and 49.5 feet north of the witness post.

Azimuth Mark, is a standard azimuth disk stamped SEAN 1963, is set in a drill hole in the east curb of North 52nd Street. The mark is 102.5 feet east of the east side of PHEMCO Engineering and Manufacturing Company and 4 feet south-southwest of power pole No. 21.

The distance botween Reference Mark No. 1 and Reference Hark No. 2 is 64.2 feet.

RECOVERY NOTE, TRIANGULATION STATION

QUAD 331113

R

NAME OF STATION: SEAM

ESTABLISHED DY: C.A.A.

YEAR: 1963

STATE: Arizona BENCH MARKITI ALDO [A]

RECOVERED BY: L.F. Smith YEAR: 1970

COUNTY: Harizona

ARRIME DISTANCE AND DISECTION FROM NEAREST TORN: 6 miles east of Phoenix

Detailed statement as to the fitness of the original description; including marks found, atompings, changes made, and other pertinent factor.

All marks were were recovered and found in good condition. The route to the station is adequate.

FILE COPY

### ADJUSTED HORIZONTAL CONTROL DATA

SCURCE: 0-13304

NAME OF STATION: SEAM

YEAR: 1963

STATE: Arizona

LOCALITY Arizona Hwy. Survey, Papago Preeway

First -ORDER Traverse

FIELD SKETCH: APIZ. 50

GRID DATA	COORDINATES (Feet)	PLANE AZIMUTH #IOR &c) ANGLE	MARK
STATE: Ariz. ZONE: C CODE: 0202	* 484,441.37 894,247.06	166° 15' 31" - 0 01 41	AZIMUTH MARK
STATE:	x		
ZONE:	7		
CODE:		- 10	

GEODETIC		POSITION			SECONDS IN METERS	€	LEVATR	ЭN
DATA	LATITUDE: 33'	58 c	9"8411 3.6514	HORTH WEST			2.75 2.9	METER
	TO STATE	ЭН			GEODETIC AZIMI (From south)	ITH	DISTA (Mete	
AZIMUTH MAR	К				SECOND-ORD 166*13149	ER "9		

JULY 1966 PUBLISHED AND PRINTED BY: U.S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY WASHINGTON D.C. Revised AUG 1974

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM QUAD 331113 STATION 1006 ARIZ 33°00' TO 33°30' LATITUDE LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

> 33 15 111 45

U.S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY

### **DESCRIPTION OF TRIANGULATION STATION**

TRAVERSE -STATEL PIZ TES YEAR: TOAT "

COUNTY: Mariecpa

NAME OF STATION DELE

CHIEF OF PARTY C. 4. Annis

DESCRIBED BY: H.D. Tilis"

1b 7a	SURFACE-STATION MARK, UNDERGROUND-STATION MARK	DISTANCES AND DIRE	CHICHS TO	AZIMUTH NE SEEN PRO	MRK, M.TH	REFERENCE I E GROUND AT	A ZARAM	ND PRO	MINENT			
78	OBJECT	RCT.					DISTANCE			DIRECTIONS		
	OBJECT		BEARING	PEET		METERS		INECII	UM.			
	PAPAGO 19	62					10	00	00,,00			
	Governor "unt's Tomb 1	936	55		- 1		68	54	02.1			
	Phoenix, Cudahy Facking	g Co. Mater Tank	SA	ipprox.	1.0	mile -	173	29	33.5			
	Center Section (Phoeni	x City Survey)	SK	ipprox.	0.5	mile "	184	30	50,49			
116	R.H. No. 2		17	25,30	- 1	8.017	206	4.2	42 *			
	azimuth Mark		W	approx.	0.4	mile -	215	24	90,52			
116	R.M. No. 1		NE.	49.32	,	12.239	332	14	31			

The station is located about 7 miles east of the center of Phoenix, about 1/2 mile south of East Po Dowell Road on a small hill northwest of the northwest corner of a golf course in Papago Park.

To reach the station from the intersection of East Mc Dowell Road and North 52nd Street, go south on North 52nd Street for 0.2 mile to azimuth mark on left, continue south for O.1 mile to a ciled road left, turn left, so northeast and east on ciled road for 0.4 mile to where oiled road turns right, continue striaght shead for 0:65 mile to the station on left.

Station, a standard traverse disk set in the top of a round concrete post which projects 1 inch and stammed GOLF 1963. The mark is 104 feet east-northeast of ciled road, 5.5 feet north of witness post and fence and 4 feet west of a power pole.

Reference mark 1, a standard reference disk set in the top of a round concrete post which projects 1 inch and stamped COLF NO 1 1963. The mark is 45.7 feet northnortheast of witness post, 39.5 feet north-northeast of a power pole and 43 feet north

Reference mark 2, a stundard reference disk set in the top of a round concrete post which projects I inch and starped GOLF NO 2 1963. The mark is 30.5 feet weat of a power pole, 25 feet west of witness post and 2.5 feet north of fence.

Aziruth mark, a standard aziruth disk set in a drill hole in the east curb of North 12nd Street and stamped GK LF 1963. The mark is 23.5 Feet north of power role number 22, 23 feet east of center of North 52nd Street and 7.5 feet west of fence.

Center Section, a City of Phoenix Survey Foint located in the intersection of East Roosevelt Street and North 52nd Street, is a small rock sat in asphalt in center of a white cross and four nails. The mark is 47.8 feet northwest of power pole number 115, 33.6 fest southwest of street E. Roosevelt and N. 52nd and 3.1 feet east of the west edge of blacktop.

The distance from R.M. No. 1 to R.M. No. 2 is 59.58 feet or 18.162 meters.

### RECOVERY NOTE, TRIANGULATION STATION

331113

NAME OF STATION: GOLP ESTABLISHED BY C.M.A. YEAR: 1963 STATE: AFIZONA BENCH MARK ALSO MECOVERED BY: Charles Hovak YEAR: 1974 COUNTY: Maricopa AIRLINE DISTANCE AND DIRECTION FROM NEAREST TOWN: 7 miles east of Phoenix HEIGHT OF TELESCOPE ABOVE STATION MARK 5 FEET. HEIGHT OF LIGHT ABOVE STATION MARK 5 FEET.

OBJECT		DIST.	ANCE			
GRIECI	BEARING	FEET	METERS	DIRECTION		
Thoenix, Froducers Cotton Vil Co. Thoenix, Cudahy Packing Co. Water	water ank 1	ank 1963		.0	00 57	00°0
th 2 th 3 O.4 mile	W	26.31	8.020	35	11	03 56.0

The station mark and reference marks 1 and 2 were recovered and found in good condition. The azimuth mark was destroyed when curbing was removed for a new entrance to the armory and reference mark 3 was established at this time.

The station mark is a standard disk stamped, Gour 1963. It is set in top of a 12 inch concrete monument which projects about 2 inches. It is 2h feet north of the center of the road, 6 feet north of witness post and L feet west of power pole number 535.

### ADJUSTED HORIZONTAL CONTROL DATA

HAME OF STATION: GOLF

YEAR: 1963

STATE: Arizona

LOCALITY Arizona Hwy. Survey, Papago Freeway

First -ORDER Traverse

SCURCE: 0-13304

FIELD SKETCH: APIZ. 50

GRID	DATA	COORDINATES (Feet)	PLANE AZ		MARK
STATE: ZONE: CODE:	Ariz. C 0202	* 486,330.70 y 895,589.50	90° 40 - 0 01 88 59	29	AZIMUTH MARK RM 3
STATE: ZOME: CODE:		y y			

	POSITION		SECONDS IN METERS	ELEVATION
DATA	LATITUDE: 33° 27' 43"1325 LONGITUDE: 111 57 41.3569	NORTH WEST		387.15 METERS 1270.2 PEET
	TO STATION		GEODETIC AZIMUTH (From south)	DISTANCE (Matera)
AZIMUTH MAF AZIMUTH MA			SECOND-ORDER 90°38'53"4 88 57 54.7	

Reference mark 1 is a standard disk stamped, GULF NO 1 1963. it is set in top of a 12 inch concrete monument which projects about 1 1/2 inches. It is 45 feet north of the witness post, 61 feet north of the center of the road and about the sume elevation as the station.

deference mark 2 is a standard disk stamped, wour NO 2 1963. It is set in top of a 12 inch concrete monument which projects about 1 1/2 inches. It is 25 feet west of the witness post, 22 feet north of the center of the road and about the same elevation as the station.

meference mark 3 is a standard disk stamped, GOLF 1963 NO 3 1974. It is set in a wrill hole in the curbing along the west side of 52nd street. At an intersection with a traffic light. The cross street leading to the National Guard Armory to the east and to a Roterola plant west. The mark in in the southwest corner of the intersection, 6 feet south of a crosswalk, 4 feet east of a fire hydrant and in the same area as the 1903 azimuth mark.

The route to the station remains unchanged.

for you waliful

JULY 1966
PUBLISHED AND PRINTED BY:
U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
WASHINGTON D.C.

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM ARIZON/

168 B

QUAD 331113 STATION 1007 ARIZ LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

ELEV=422.06

330 151

### ADJUSTED HORIZONTAL CONTROL DATA

NAME OF STATION | PAPAGO

YEAR: 1962, 1963

First -ORDER Triangulation | Calify Arizona Hwy. Survey, Papago Freeway (Ehrenberg to Phoenix to Casa Grande)

First -ORDER Triangulation | FIRST CALIFORNIA | FIRST

GRID	DATA	C	OORDIN	ATES (	Foot)		ME AZI				М	ARK					
STATE: ZONE: CODE:	Ariz. C 0202	y	488 897			79°	46 ° 01	25" 15	AZIMUTH	MARN	=	TT	S	3	AMS	1	
STATE: ZONE: COOR:		y															

	POSITION		SECONDS IN METERS	ELEVATION
DATA	LATITUDE: 33° 27' 57"4 LONGITUDE: 111 57 16.6	904 NORTH		421.7 метен: 1384 гест
	TO STATION	-XI	GEOBETIC AZIMUT	H DISTANCE (Motors)
AZIMUTH MA	RK = TT S 3 AMS \		THIRD-ORDER 79*45'09"8	×.
				- 0
		_		
				-

USCOMM-ESSA-ASHEVILLE

U.S. DEPARTMENT OF COMMERCE

### DESCRIPTION OF TRIANGULATION STATION

NAME OF STATION: PAPAGO

STATE: Arizona

COUNTY: Haricopa

CHIEF OF PARTY: C. A. Annis

YEAR: 1962

DESCRIBED BY: R. D. S. Z

HEIGHT OF TELESCOPE ABOVE STATION MARK 1.6 METERS, I HEIGHT OF LIGHT ABOVE STATION MARK 1.3 METERS. DISTANCES AND DIRECTIONS TO AZIMUTH MARK, REPERENCE MARKS AND FROMINENT OBJECTS WHICH CAN BE SEEN FROM THE GROUND AT THE STATION SURFACE-STATION MARK, UNDERGROUND-STATION MARK DISTANCE BEARING DBJECT PEST METERN BELL BUTTE (AMS) 00 00 00 12a R. H. No. 1 SSW 18.47 5.630 19 02 341 Phoenix, Producers Cotton Oil Co., Water Tank SW 39 10 21.0 Approx. 2 miles Phoenix, Cudahy Packing Co., approx. 2 miles Water Tank SW 44 Azimuth Mark (Corps of Eng.) approx. 0.25 mile.70 10.6 03 12a R. M. No. 2 MMM 9.781

The station is located about 7 miles east-northeast of the center of Phoenix, at the north edge of Papago Park, on the south side of the fence of the Phoenix National Guard and is on a small rocky knoll on the north side of East McDowell Road.

To reach the station from the junction of East McDowell Road and North Central Avenue in Phoenix, go east on East McDowell Road for 5.85 mile to 52nd Street, continue east on East McDowell Road for 0.5 mile to the Azimuth Eark (Corps of Eng.) on right. Continue east for 0.25

mile to the station on top of a small rocky knoll on the left.

Station mark, a standard triangulation station disk set in a drill hole in out cropping bedrock and is stamped PAPAGO 1962. The mark is approximately 150 feet north of McDowell Road and 11.4 feet south of fence.

Reference mark 1, a standard reference disk set in a drill hole in outcropping bedrock which is about 15 feet below the station, the disk is stamped PAPAGO NO 1 1962. The mark is 27 feet south of fence

disk is stamped PAPAGO NO 1 1962. The mark is 27 feet south of fence.
Reference mark 2, a standard reference disk set in a drill hole
in outcropping bedrock which is about 7 feet lower than the station
and is stamped PAPAGO NO 2 1962. The mark is 3 feet south of fence.

Azimuth mark, a U.S. Corps of Engineers bronze disk set in top of a round concrete post which projects about 2 inches and is a tamped TT 33 1948. The mark is 86 feet south of McDowell Road and is encircled by white painted rocks.

U.S. DEPARTMENT OF COMMERCE - COAST AND GEODETIC STAYED RECOVERY NOTE, TRIANGULATION STATION

R

NAME OF STATION: PAPAGO

ESTABLISHED BY: C.A. Annis YEAR: 1962 STATE: Arizona RECOTERED BY: C.A. Annis YEAR: 1963 COUNTY: Maricopa

Detailed statement as to the Staces of the original description; including marks found, atampings, changes made, and other perthent factor.

The station mark, azimuth mark, reference marks number 1 and 2 were recovered as described and found to be in good condition.

The description of to reach the station was found to be adequate.

Described by Gonard \$2 0007

FILE COPY

168

ARIZONA

JULY 1966
PUBLISHED AND FRINTED BY:
U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
WASHINGTON D.C.

330 151

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM QUAD 331113 STATION 1008 ARIZ LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

U.S. DEPARTMENT OF COMMERCE COAST AND SEDDETIC SURVEY

### DESCRIPTION OF TRIANGULATION STATION

16

NAME OF STATION: GUN

STATE: Arizona

COUNTY: Paricopa

CHIEF OF PARTY: C.A. Annis

YEAR: 1963

DESCRIBED BY: H.D. Ellis

lb 7a	SURFACE STATION MARK, UNDERGROUND-STATION MARK	DISTANCES AND DIRE OBJECTS WH	DISTANCES AND DIRECTIONS TO AZIMUTH MARK, REFERENCE MARKS AND OBJECTS WHICH CAN BE SEEN FROM THE GROUND AT THE STATE							
(d	OBJECT	•	BEARING	DISTA	HCE		DIRECTI	awi		
			a saming	PERT	METERS		MECH	UNI		
	PAP1GO 196	2		0.00	over mental 1	D	00'	00.0		
dese	R.H. No. 1		E	17.47	5.327	59	37	23		
	Governor Hunt's Tomb	1936	SSE	approx. 1.0	mile -	177	42	03.		
	Phoenix, KTAR Radio T	ower(south 1 of	2 21W 📑	approx. 3.0	miles ~	322	12	55.		
desa	R.M. Ho. 2		RW	24.81	7-553	335	24	21		

The station is located about 71/2 miles east of the center of Phoenix, about 2 1/2 miles northwest of Tempe, about 1 1/2 miles southwest of Scottsdale and about 1/2 mile south of East Mc Dowell Road on a small knoll in Papago Fark.

To reach the station from the intersection of East Mc Dowell Road and 52nd Street; so east on East Mc Dowell Road for 0.8 mile to a track road right and station Papago 1962 on left, turn right, go south and west for 0.15 mile to fork, take left fork, go south and east for 0.15 mile to a crossroad, continue south for 0.1 mile to station on right.

Station, a standard traverse disk set in the top of a round concrete post which projects 1 inch and stamped GUN 1963. The mark is 22 feet west of center of track road and 4.8 feet east of witness post.

Reference mark 1, a standard reference disk set in a drill hole in outcropping rock which projects 1 inch and stamped GUN NO 1 1963. The mark is 27.1 feet northeast of witness post and 7 feet west of center of track road.

Reference mark 2, a standard reference disk set in a drill hole in outcropping bedrock which is flush and stamped GUN MO 2 1963. The mark is 31 feet west of center of track road and 23.3 feet north-northwest of witness post.

Station PAPAGO 1962 to be used for azimuth mark is approximately 0.5 mile north The distance from R.H. No. 1 to R.H. No. 2 is 28.84 or 8.790 meters.

"Refere to notes in manuals of triangulation and state publications of triangulation. I Direction angle measured clockwise, referred to latital nation. ITo nemest meter only, when no trigonometric leveling in being done.

### ADJUSTED HORIZONTAL CONTROL DATA

NAME OF STATION: GUN

YEAR: 1963

STATE: Arizona

LOCALITY Arizona Hwy. Survey, Papago Freeway

First -ORDER Traverse

SCURCE: 0-13304

FIELO SKETCH: AP1Z. 50

ATAC CIRD	COORDINATES (Feet)	PLANE AZIMUTH	MARK		
STATE: APIZ. ZONE: C CODE: 0202	* 489,379.16 y 895,474.11	148° 35' 17" - 0 01 09	AZIMUTH MARK & PAPAGO		
STATE: ZONE: CODE:	z y				

		POSITI	DN .		SECONDS IN METERS	ELE	VATION
GEODETIC DATA	LATITUDE: LONGITUDE:	33° 27 111 57	42.0023 05.3714	NORTH WEST		HENC MARK	Н метея Реет
and the second	TO S	TATION			GEODETIC AZIM		HSTANCE (Meters)
PAPAGO			e)		SECOND-ORDS 148°34°08	IR 3:2	
708M 251 (7-22-60)							Name of TABLE

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JAN

1967

JULY 1966 PUBLISHED AND PRINTED BY: U.S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY WASHINGTON D.C.

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM

QUAD 331113 STATION 1009 ARIZ LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

> 330/51 111045

# U.S. DEPARTMENT OF COMMERCE COAST AND SEDDETIC SURVEY

# DESCRIPTION OF EMMERIE STATE Arizona

Maricopa

CHIEF OF PARTY: C.A. Annis

HAME OF STATION, BATON

YEAR: 1963

DESCRIBED BY.R.L. Wright \_\_\_

lb 7a	HEIGHT OF TELESCOPE ABOVE S SURFACE-STATION MARK, UNDERGROUND-STATION MARK	DISTANCES AND DIRE	CTIONS TO	EIGHT OF LIGH AZIMUTH NARI E SEEN FROM T	. REFERENCE	MARKSA	NO PEG	METERS DMINERT
1 er	OBJECT		BEARING	DIST			HRECTI	IONI
11b 16b 11b	GUN Reference Mark 2 Azimuth Mark Reference Mark 1 Scottsdale, Motoro	(V.G.) ola Water Tank	NW N	35.35 Approx. 32.83	10.773 0.25 Hi. 10.007	0 33 101 162 177	00 51 08 14 32	00.0 45.8 25.7 27.2 34.5

The station is located in the north central section of Desert Botanical Gardens, 0.3 mile south of East McDowell Road, 2.5 miles south-southwest of Scottsdale and on property owned by the Desert Botanical Gardens

managed by Mr. W. Hubert Earle.
To reach the station from the intersection of Scottsdale Road and East McDowell Road, go west on East McDowell Road for 0.5 mile to the inter-section of North 68 th Street, continue west on East McDowell Road for 0.5 mile to the entrance of Botanical Gardens on the left and the azimuth mark on the left, turn left through the park entrance and go south on the park road for 0.3 mile to the corner of a parking lot, turn left and go about 130 feet on a narrow road between stones to the corner of another parking lot, bear left at the corner of the parking on a dim track road for about 80 feet to the station on the left as described.

The station is a standard traverse disk stamped BATON 1963, set in top of a 12-inch concrete cylinder which projects 2 inches above the ground surface. It is 3.1 feet north-northeast of a standard metal witness post and marker, 8.5 feet north-northwest of the approximate center of the dim track road, 53.0 feet northeast of north edge of parking lot and 154 paces

east-northeast of the northeast corner of park office.

Reference mark 1 is a standard disk stamped BATON NO 1 1963, set in top of a 12-inch concrete cylinder which projects I inch above the ground surface. It is 12.0 feet northwest of the approximate center of the dim track road, 35.0 feet northeast of the witness post and 80.0 feet north of the north edge of the parking lot.

Reference mark 2 is a standard disk stamped BATON NO 2 1963, set in top of a 12-inch concrete cylinder which projects 1 inch above the grounds surface. It is 35.0 feet northwest of the approximate center of the dim track road, 36.1 feet northwest of the witness post and 53.0 feet north

of the north edge of the parking lot.

The azimuth mark is a standard disk stamped BATON 1963, set in top of a 12-inch concrete cylinder which projects 2 inches above the ground surface. It is 2.5 feet north of an east and west fence line, 2.8 feet north-northeast of a standard metal witness post and marker, 62.5 feet east of the approximate center of the park entrance and 45 paces south of the centerline of East McDowell Road.

### ADJUSTED HORIZONTAL CONTROL DATA

HAME OF STATION: BATON

YEAR: 1963

STATE Arizona

LOCALITY: Arizona Hwy. Survey, Papago Freeway

First -oscs Traverse

SEURCE: 0-13304

FIELD SKETCH: Ariz. 50

GRID DATA	COORDINATES (Feet)	PLANE AZIMUTH	MARK
STATE: Ariz. ZONE: C CODE: 0202	* 491,824.24 y 895,471.97	191° 11' 25" - 0 00 53	AZIMUTH MARK
STATE: ZONE: CODE:	x y	- "	

	POSITION	SECONDS IN METERS	ELEVATION	
GEODETIC DATA	LATITUDE: 33° 27' 41"9883 NORTH LONGITUDE: 111 56 36.5090 WEST		BENCH METERS MARK FEET	
	TO STATION	GEODETIC AZIMUTE (From south)	DISTANCE (Motore)	
AZIMUTH MAR	K ×	SECOND-ORDER 191°10'32"4		

USCOMM-ESSA-ASHEVILLE



Refers to notes in manuals of triangulation and state publications of triangulation. This ection angle measured clockwise, referred to initial station. ITo nearest meter only, when no trigonometric leveling is being dose.

168

10-18

NAME OF STATION:

ARIZONA

JULY 1966
PUBLISHED AND PRINTED BY:
U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
WASHINGTON D.C.

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM QUAD 331113 STATION 1010 ARIZ LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

U.S. DEPARTMENT OF COMMERCE

# DESCRIPTION OF TEXTION

TRAVERSE STATE: Arizona

COUNTY: Maricopa

CHIEF OF PARTY C. A. Annis

CURB

YEAR: 1963

330/51

1110451

DESCRIBED BY: R.P.K

desc.	SURFACE-STATION MARK, UNDERGROUND-STATION MARK	DISTANCES AND DIRECTS W	ECTIONS TO	AZIMUTH MARI E SEEN FROM T	. REFERENCE I	MARKS AND PROMINENT
	DBJECT	334-37-4-4-335-73	BEARING	DIST	HOE	DIRECTIONS
- 1				PEET	METERN	OMECTION:
desc.	R.H. No. 2		/			00 00 00.00
	Azimuth Mark		W -	77.03	23.479	00 27 25
	R.M. NO. 1		3-	approx.	0.25 mil 12.667	89 57 28.49

Station is located about 2 miles south-southwest of Scottsdale, about 1/4 mile south of East Mc Dowell Road and in residential area at the intersection of East Bellview Road and North 68th Street.

the intersection of East Bellview Road and North 68th Street.

To reach from Scottsdale Road and East Mc Dowell Road in Scottsdale, go west on East Mc Dowell Road for 0.5 mile to North 68th Street, (Azimuth mark is located in the southwest corner of intersection as described), turn left and go south on North 68th Street for 0.25 mile to East Belleview Street and station on left as described.

Station mark, a standard traverse disk stamped GURB 1963, is set in a drill hole in the northeast street curb of intersection of North 68th Street and East Belleview Street. The mark is 34.4 feet northeast of the center of intersection.

Reference mark 1, a standard reference disk stamped CURB NO 1 1963, is set in a drill hole in the southeast street curb of intersection of North 68th Street and East Belleview Street. The mark is 42.5 feet southeast of the center of intersection.

Reference mark 2, a standard reference disk stamped CURB NO 2 1963, is set in a drill hole in the northwest street curb of intersection at North 68th Street and East Belleview Street. The mark is \$1.2 feet northwest of center of intersection.

Azimuth mark, a standard azimuth disk stamped CURB 1963, is set in a drill hole in the west street curb of North 68th Street. The mark is 151 feet south of center of East Mc Dowell Road.

\*Refers to notes to manuals of triangulation and state publications of triangulation. 1Direction-angle measured clockwise, referred to initial statues.

1 To nearest meter only, when no trigonometric leveling is being dose.

### ADJUSTED HORIZONTAL CONTROL DATA

HAME OF STATION: CURB

YEAR: 1963

STATE: Arizona

LOCALITY: Arizona Hwy. Survey, Papago Freeway

First -onces Traverse

SCURCE: 0-13304

FIELD SKETCH: Ariz. 50

GRID	DATA	CC	ORDINATES (Feet)		NE AZII		CONTRACTOR OF THE PARTY OF THE	MARK
	Ariz. C 0202	y y	494,685.74 895,578.20/	177° - 0	00	55" 35	AZIMUTH MARK	
STATE: ZONE: CODE:		x y						

	POSITIO	ч		SECONDS IN METERS	ELEV	ATION
GEODETIC DATA	LONGITUDE: 33° 27°	43".0454 02.7312	NORTH WEST			PEET
	TO STATION	72		GEODETIC AZIMU (From south)	TH DIS	STANCE fotors)
AZIMUTH MAR	<b>IK</b> 3		N	SECOND-ORD 177°49'20	ER "2	

FILE COPY

JAN 1967

JULY 1966

U.S. DEPARTMENT OF COMMERCE ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION COAST AND GEODETIC SURVEY Revised DEC 1974

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM QUAD 331113 STATION 1011 ARIZ LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

33 15 111 45

U.S. DEPARTMENT OF CONNERCE COAST AND SEDDETIC SURVEY

### DESCRIPTION OF TRUMBULATION STATION

30000 NAME OF STATION

TRAVERSE STATE: Arizona

COUNTY Maricons

CHIEF OF PARTY:

C.A. Annis

1963

DESCRIBED BY: R.P.K.

NOTE.	HEIGHT OF TELESCOPE ABOVE S	TATION MARK 1.6 ME	TERS,1 H	EIGHT OF LIGHT	ABOVE STATE	H HARK I	METERS.
desc.	SURFACE-STATION WARK, UNDERGROUND-STATION MARK	DISTANCES AND DIRE	CTIONS TO	AZINUTH MARK E SEEN FROM T	, REFERENCE I HE GROUND AT	THE STATIO	ROMINENT H
	DOLECT		BEARING	DIST	NCE	DIREC	TIONI
(	OBJECT		BENNING	PEET	METERS	DIREC	
1	MEAT					00 00	'00.00 <
	Scottadale Motorol	a Water Tank	E	approx 1	1/2 m.	02 26	09.1
	R.H. No. 2		W -	61.30 =	18.684	187 18	25
	Azimuth Mark		N -	approx.	0.25 m.	281 32	01.60
	R.M. No. 1		N-	59.69	18.1941	283 33	00

Station is located about 2 1/4 miles south of Scottsdale and on the southwest corner of Scottsdale Road and Belleview Street. To reach from Scottsdale Road and East Mc Dowell Road in Scottsdale, go south on Scottsdale Road for 0.25 mile to Belleview Street

and station on right.

Station mark, a standard traverse disk stamped SCOTT 1963, is set in a drill hole in the southwest street curb at Scottsdale Road and Belleview Street. The mark is 42.5 feet west of center of Scottsdale Road, 23 feet south of the center of Belleview Road and 20.5 feet east of a power pole No. 1424.

Reference mark 1, a standard reference disk stamped SCOTT NO 1 1963, is set in a drill hole in the northwest street curb at the intersection of Scottsdale Road and Belleview Street. The mark is 36 feet north of the center of Belleview Street, 35.5 feet west of center of

Scottsdale Road and 5 feet south of a power pole.
Reference mark 2, a standard reference disk stamped SCOTT NO 2
1963, is set in a drill hole in the south street curb of Belleview Street. The mark is 64 feet north of the northeast corner of Richfield Service Station Building, 41.5 feet west of power pole No. 1424 and 20 feet south of center of Belleview Street.

Azimuth mark, a standard azimuth disk stamped SCOTT 1963, is set is a drill hole in the southeast street curb of East Mc Dowell Road and Scottsdale Road. The mark is 72 feet east of the center of Scottssdale Road and 33.5 feet south of center of East Mc Dowell Road.

To reach the azimuth mark from the station, go north on Scottsdale Road for 0.25 mile to East Mc Dowell Road and azimuth mark in southeast corner of intersection as described.

RECOVERY NOTE, TRIANGULATION STATION

R

NAME OF STATION SCOTT

ESTABLISHED BY: Ariz. Hwy. Deptyear1963 STATE: Arizona RECOVERED BY:

BENCH MARK ALSO YEAR: 1971 COUNTY Maricopa

AIRLINE DISTANCE AND DIRECTION FROM NEAREST TOWN:

FEET. HEIGHT OF TELESCOPE ABOVE STATION MARK

HEIGHT OF LIGHT ABOVE STATION MARK

FEET.

DISTANCES AND DIRECTIONS TO AZIMUTH MARI	C. REFERENCE MAI	RES AND PROMI	HENT OBJECTS W	HICH CAI	4 BE SE	EM
		DISTANCE			ION	
OBJECT	DEARING	PEET	METERS		DIRECT	
SCOTT Azimuth Mark 1963			1	0	00	00:00
SCOTT 2	1			265	07	17.4
CURB 1963		İ		263	41	12.0
	- 1		1	1		- 1

This station and reference marks and azimuth mark were recovered in good condition, in 1968. The widening of Scottsdale Road will destroy the station and reference marks.

ADJUSTED HORIZONTAL CONTROL DATA

HAME OF STATION: SCOTT

YEAR: 1963

STATE: Arizona

LOCALITY Arizona Hwy. Survey, Papago Preeway

First -ORDER Traverse

SCURCE: 0-13304

FIELD SKETCH: AP12. 50

GRID DATA	COORDINATES (Feet)	PLANE AZIMUTH BIOR & BI ANGLE	MARK
STATE: Ariz. ZONE: C CODE: 0202	* 497,237,58 * 895,598.91	185° 51' 06"\ - 0 00 18	AZIMUTH MARK
STATE: ZONE: CODE:	x y		

	POSITIO			SECONDS IN METERS	ELEVATION
GEODETIC DATA	LATITUDE: 33° 27'	43"2536 32.6085	HORTH WEST		METER
•	TO STATION			GEODETIC AZIMU (From south)	TH DISTANCE (Melere)
AZIMUTH MAR	к\			SECOND-ORDE 185°50'48".	R`

USCOMM-NOAA-ASHEVILLE



DECEMBER 1974 U.S. DEPARTMENT OF COMMERCE ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION COAST AND GEODETIC SURVEY

# HORIZONTAL CONTROL DATA

Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM

331113 GHAD ARIZ LATITUDE

ADJUSTED HORIZONTAL CONTROL DATA

STATION 33°00' 10 33°30' LONGITUDE 1110 30 " TO 112000" DIAGRAM NI 12-8 MESA

HOAA FORM 75-39 ITZ-IF

U.S. DEPARTMENT OF COMMERCE NATIONAL DESANCE AND ATMOSPHERIC ADMINISTRATION NATIONAL GEODETIC NETWORKS DESCRIPTION OF TRIANGULATION STATION

NAME OF STATION SCOTT 2

SCOTT 1963, trav.

STATEATIZONA

COUNTY: Maricopa

1.81

359

28 52.4

R

01 53

QUADRANGLE NO 331113

RESCRIBED BY

23.875

17.822

NAME OF STATION

SCOTT 2

Obs by AZHD

\*\*\*\*\* Arizona

YEAR 1968

First HORDER

LOCALIFE

MOUNCE G-10749

FIELD SECTOR

GEODETIC LIBITIONS 33 27 43 26665 111 55 33 53151	tithation	373.75 1226.2	**************************************
---	-----------	------------------	--

		STATE COORDINATES (F)	919		
\$167E # 2016 CODE				# ION & RI AHOLE	
Ariz. C	0202	497,159.39	895,600,24	- 0 00 18	

PLANE ABBUTH HAS BEEN COMPUTED BY THE & FORM BY PORMULA RECLEETING THE SECOND TERM

TO STATION OR OBJECT	GEODETIC AZ:WUTM IFrom Esseile	PLANE AZIMUTH *	CODE
AZIMUTH MARK	90 28 43.8	90 29 02	0202
		500	

The station mark, reference marks 3 and 4 and the 1968 azimuth mark were recovered and found in good condition. A number 2 azimuth mark was established at this time.

The station mark is a standard disk stamped, SCOTT 2 1968. It is set in a drill hole in the south curb of East Belleview Street, 57.3 feet west of a stop sign on the southwest corner of East Belleview Street and North Scottsdale Road and 12 1/2 feet northeast of power pole number

Reference mark 3 is a standard disk stamped, SCOTT 2 NO 3 1968. It is set in a drill hole in the south curb of East Belleview street, 18 1/2 feet south of the center line of East Belleview Street and 10 feet northeast of a power pole with a transfermer.

Reference mark 4 is a standard disk stamped, 500TF 2 No 4 1968. It is 63 feet north of a fire hydrant, 18 feet north of the center line of East Bolleview Street and set in a drill hole in the north curb.

Stem (old RH 2) is what appears to be the stem of old reference mark 2 with the cap removed. It is set in a drill hole in the south curb about 17 feet east of the station.

Azimuth mark (1968) is a standard disk stamped, SCOTT 2 1968. It is set in a drill hole in the curb in the northeast intersection of North 70 Street and East Belleview Street. It is 3 feet west of a stop sign.

Azimuth mark Number 2 is a standard disk stamped, SCOTT 2 NO 2 1968 1970. It is at the southeast corner of the intersection of East Mc Dowell moad and scottsdale Road. The mark is set in a dril hole in the concrete support of a man hole, 22 feet south of a traffic light, 9 1/2 feet south west of a fountain under an arch and 5 feet east of the sidewalk.

To reach the station from the intersection of East lic Dowell Road and North Scottsdale Road in Scottsdale, go south along North Scottsdale Road for 0.25 mile to the station on the right.

NEAREST TOWN Scottsdale CHIEF OF PARTYATIZONA Hwy. Dept. YEAR: 1968 METERS, ! MEIGHT OF LIGHT ABOVE STATION MARK HEIGHT OF TELESCOPE ABOVE STATION MARK DISTANCES AND DIRECTIONS TO AZIMUTH MARK, REFERENCE MARKS AND PROMINENT OBJECTS WHICH CAN BE SEEN FROM THE GROUND AT THE STATION DISTANCE BEARING FEET METERS 00 00.00 CURB 1963 59 39.3 0 SCOTT 2 Azimuth Mark 99 45 24.0 SCOTT Azimuth Mk. 1963 27 39.54 12.052 132 27

R.M. 3

R.M. 4

Station is located about 2½ miles south of Scottsdale and on the southwest corner of Scottsdale Rd. and Belleview Street. To reach from Scottsdale Rd. and East McDowell Rd. in Scottsdale, go south on Scottsdale Rd. for 0.25 mile to Belleview Street, turn right on Belleview and station on left.

NE

78.33

58.47

Station mark, a standard disk stamped SCOTT 2 1968 is set in a drill hole in the southwest street curb at Scottsdale Road and Belleview Street. The mark is 121.1 feet west of centerline of Scottsdale Road, 19.7 feet south of center of Belleview Street, 58.5 feet west-northwest of power pole No. 1424, and 17.35 feet west of edge of first driveway leading into a Richfield Service station on Belleview.

Reference mark 3, a standard reference disk stamped SCOTT 2 No. 3 1968, is set in a drill hole in the south street curb of Belleview Street. The mark is 136.80 feet west of centerline of No. Scottsdale Rd. 58.47 feet west along curb from SCOTT 2 1968 and 10.6 feet northeast of a SRP power pole.

Reference mark 4, a standard reference disk stamped SCOTT 2 No. 4 1968, is set in a drill hole in the north street curb of Belleview Street. The mark is 39.54 feet north of SCOTT 2 1968, 19.84 feet north of center of Belleview Street, and 56.3 feet east of a SRP power pole.

Azimuth mark, a standard azimuth disk stamped SCOTT 2 1968 is set in a drill hole in the Northeast street curb of East Belleview and North 70th Street. The mark is 29.45 feet southwest of corner of house, 13.35 feet south of a fire hydrant, 48.60 feet north of a vertical irrigation box which is located on southeast corner of East Belleview, and 83.30 feet northeast of a street light pole which is located on southwest corner of East Belleview Street.

RECOVERY NOTE, TRIANGULATION STATION

NAME OF STATION | SCOTT 2 BENCH MARK ALSO ESTABLISHED BY YEAR: 1968 STATE: Arizona RECOVERED BY . L.F. Smith YEAR: 1970 COUNTY Haricopa AIRLINE DISTANCE AND DIRECTION FROM NEAREST TOWN: 2 1/4 miles south of Scotsdale

HEIGHT OF TELESCOPE ABOVE STATION MARK 5 FEET.

HEIGHT OF LIGHT ABOVE STATION MARK 5

DISTANCES AND DIRECTIONS TO AZIMUTH MARK, RI	FERENCE MAI	RKS AND PROMIN E STATION	ENT OBJECTS I	HICH CAN	8E \$E	EN
		DIST	ANCE	DIRECTION		
OBJECT	BEARING	PEST	METERS		HEGTI	GN
CUnB 1963 Azimuth mark (1948)(approx. 0.45 RM 4 Azimuth mark No. 2 (approx. 0.25 Scottsdale, Notorola Water Tank	mile no	rthj		0 87 99	59 47 30 18	00.0 41.4 49 26.9 43.2
(1 1/2 miles east) Stem (ald RM 2)	E	17.025 58.47	5.190 17.822	1 <b>79</b> 359	07 01	50 53

U. S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

REV: MAY 1971

### HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM QUAD 331113 STATION 1012
ARIZ
LATITUDE 33°00' TO 33°30'
LONGITUDE 111°30' TO 112°00'

DIAGRAM NI 12-8 MESA

33 15

AZ 168

FORM 525

# U.S. DEPARTMENT OF COMMERCE COAST AND STORY TO THE PARKET DESCRIPTION OF THE PARKET STATION

NAME OF STATION: MEAT

STATE: Arizona

Haricopa

CHIEF OF PARTY: C.A. Annis

YEAR: 1963

DESCRIBED BY: R.L. Wright

COUNTY:

HOTE,	HEIGHT OF TELESCOPE ABOVE S	TATION MANK 7 NE	rens.1 H	EIGHT OF LIGH	T ABOVE STATE	00 M45W	-	METERS.
15 78	SURFACE-STATION MARK, UNDERGROUND-STATION MARK	DISTANCES AND DIRE	TIONS TO	AZIMUTH MARI		MARKSA	HD PUC	
	DBJECT		BEARING	PRET	ANCE	-	HRECTI	ONI
Desc. Desc. 11b			HNW H	Approx. Approx.	0.25 Mi. 0.2 Mi. 10.507	0 62 96 92	00 03 16 25	00.00 31.74 20.76

The station is located along the east side of 76 th Street, 0.2 mile south of East McDowell Road, 2.2 miles south-southeast of Scottsdale and on highway property.

To reach the station from the junction of Scottsdale Road and East Hobowell Road, go east on East Hobowell Road for 0.5 mile to 76 th Street, turn right, go south on 76 th Street for 0.2 mile to the station on the left as described.

The station mark is a standard traverse disk stamped MEAT 1963, set in top of a 12-inch concrete cylinder which projects 1 inch above the ground surface. It is 6.0 feet east-northeast of a standard metal witness post and marker, 9.0 feet west of a north and south fence line, 32.5 feet east of the approximate center of 76 th Street and 98.0 feet southeast of a powerline pole number 313.

Reference mark 1 is a standard disk stamped MEAT NO 1 1963, set in top of a 12-inch concrete cylinder which is flush with the ground surface. It is 12.0 feet west of the north and south fence line, 30.0 feet east of the approximate center of 76 th Street, 34.8 feet north-northeast of the witness post and is about the same elevation as the station mark.

Reference mark 2 is a standard disk stamped MEAT NO 2 1963, set in top of a 12-inch concrete cylinder which projects 1 inch above the ground surface. It is 9.0 feet west of the north and south fence line, 30.9 feet east of the approximate center of 76 th Street, 39.7 feet south-southeast of the witness post and is about the same elevation as the station mark.

The azimuth mark is a standard disk stamped MEAT 1963, comented in a drill hole in the south curb of East McDowell Road located at the extreme northeast corner of a Shopping Conter, parking lot. It is 5.2 feet north of the northeast corner of the parking lot, 34.2 feet south of the centre line of East McDowell Road and 81.0 feet northeast of a flood light pole.

The 1/h section corner mark is located at the intersection of 76 th Street and McDowell Road. It is a 5/8 inch rod located in a 10-inch hand hole with a steel lid, in the center of the intersection of 76 th Street and McDowell Road.

To reach the azimuth mark from the station, go north on 76 th Street for 0.2 mile to McDowell Road, turn left, go east on McDowell Road for 0.15 mile to the northeast corner of a Shopping Center parking lot on the left and the azimuth on left as described above.

### RECOVERY NOTE, TRIANGULATION STATION

NAME OF STATION: MEAT

ESTABLISHED BY: C.AA. YEAR: 1963
RECOVERED BY: L.F. Smith YEAR: 1970

AIRLINE DISTANCE AND DIRECTION FROM NEAREST TOWN: 2 1/4 miles south-southeast of Scottsdele

Detailed statement as to the fitness of the original description; including marks found, stampings, changes made, and other pertinent factor

The station mark and reference mark 1 and 2 are buried or dfstroyed. The azimuth mark is dfstroyed. A thorough search was made for the station and reference marks.

### ADJUSTED HORIZONTAL CONTROL DATA

NAME OF STATION: MEAT

YEAR: 1963

STATE: Arizona

LOCALITY: Arizona Hwy. Survey, Papago Freeway

First -onder Traverse

SCURCE: 0-13304

FIELD SKETCH: Ariz. 50

GRID DATA	COGRDINATES (Feet)	PLANE AZIMUTH	MARK
STATE: APIZ. ZONE: C	#99,935.67 #895,867.36	0 00 00	AZIMUTH MARK
STATE: ZONE: CODE:	* y	60	

		POSITION		SECONDS IN METERS	ELEVATION
GEODETIC DATA	LATITUDE: 33°	27' 45"9110 55 00.7594	HORTH WEST		367.21 METER 1204.7 FEET
	TO STATIO	н		GEODETIC AZIMS (From south)	ITH DISTANCE (Maters)
AZIMUTH MAR	ĸ			SECOND-ORD 146°22'36	ER I
					-
				•	
ORM 201 (2-23-80)					

FILE COPY

JULY 1966
U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY
REVISED MAR 1972

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM ARIZONA

168B

QUAD 331113 STATION 1013 ARIZ LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

# 330151

### DESCRIPTION OF TRIANGULATION STATION

TRAVERSE

HAME OF STATION: HAYDEN

STATE: Arizona

COUNTY Maricona

CHIEF OF PARTY: C.A. Annis

YEAR: 1967

DESCRIBED BY: H.D. Killis

TD	HEIGHT OF TELESCOPE ABOVE ST SUNFACE-STATION MARK, UNDERGROUND-STATION MARK	DISTANCES AND DIRE	CTIONS TO	AZIMUTH MARI E SEEN FROM T	REFERENCE	MARKS	LND DEC	METERS
	OBJECT		BEARING	DIST	HCE			
			DENMING	PEET	METERS	1 '	DIRECTI	DHI
	ROLA					*	200	
desc.	R.M. No. 2		SSE	10/0			00	00,0
	Scottsdale, KWBY Radio	Terre		40.68	12.402	108	25	44
lesc.	Azimuth Fark	lower	IN	approx. 2		244	55	36.3
esc.	R.H. No. 1		H	approx. 0.	4 mile	299	39	57.3
10000	110. I		NNE	39.00 - 1	11.889	311	Li	42

The station is located about 3 miles southeast of Scottsdale and about 1/2 mile south of East Wc Dowell Road on the west side of Hayden Road.

To reach the station from the intersection of Scottsdale Road and East Mc Dowell groad, go east on East Mc Dowell Road for 1.0 mile to Mayden Road(azimuth mark in the southwast corner of intersection), turn right, go south on Hayden Road for 0.4 mile to

Station, a standard traverse disk set in the too of a round concrete post which projects 1 inch and stamped HAYDEN 1963. The mark is 39 feet west of center of Hayden froad, 7.5 feet west-northwest of power pole number 15 and 3.8 feet west of west edge of sidewalk.

Reference mark 1, a standard reference disk set in a drill hole in the west curb of Hayden Road and stamped HAYDEN NO 1 1963. The mark is 41.5 feet north of power pole number 15, 31 feet west of center of Hayden Road and 17 feet south of center of driveway.

Reference mark 2, a standard reference disk set in a drill hole in the west curb of Hayden Road and stamped HIYDEN NO 2 1963. The mark is 32 feet west of center of Hayden Road and 37 feet south of power pole number 15.

Azimuth mark, a standard azimuth disk set in a drill hole in the southwest curb of the intersection of East Hc Dowell Road and Hayden Road and stamped HAYDEN 1963. The mark is 34 feet west of center of layden Road, 21 feet north-northwest of a power pole and 10.2 feet north of the northwest corner of a irrigation gate wall.

# RECOVERY NOTE, TRIANSPIRATION STATION

MAME OF STATION: HAYDON ESTABLISHED BY: G.A.A. YEAR: 1963 STATE AFIZORS RECOVERED BY: L.F. Smith YEAR: 1970 COUNTY: HARIODES BENCH MARK ALSO (20)

RECOVERED BY D. F. Smith YEAR: 1970 COUNTY MATICOPA
AIRLINE DISTANCE AND DIRECTION FROM NEAREST TOWN: J miles Southeast of Scottsdale
HEIGHT OF TELESCOPE ABOVE STATION MARK 5 FEET.

HEIGHT OF TELESCOPE ABOVE STATION MARK 5 FEET.

OBJECT	BEARING	E STATION DIS	TANCE			
		PEGT	METERS		DIRECT	FION
Scottsdale, Radio Tower KWBY 1963 Azimuth mark 0.4 mile North	(appro	x. 2 1/2	miles NW)	ů	ပဝ	00.0
RM 1	NNA SSE	39.00 40.675	11.889	54 46 223	44	27•2 39 05

The azimuth mark and reference marks 1 and 2 were recovered as described and were found in good condition. The station mark was distroyed during construction of a sewer line and was replaced on the origional position at this time using the old angles and distances to the marks and cuts.

The station mark is a standard disk stamped, HAYDEN 1963 1970. It is set in the top of a 12 inch concrete monument which is flush with the ground surface. It is 39 feet west of the center of Hayden Road, 7 1/2 feet west-northwest of power pole number 15 and 3.8 feet west of the west edge of the sidewalk.

Reference mark 1 is a standard disk stampod, HAYDAN NO 1 1963. It is set in a drill hole in the west curb of Hayden Road. It is 41 1/2 feet north of power pole number 15 and 31 feet west of the center line of

### ADJUSTED HORIZONTAL CONTROL DATA

NAME OF STATION: HAYDEN

YEAR: 1963

STATE: APIZONA

LOCALITY: Arizona Hwy. Survey, Papago Freeway

First -GROER Traverse

SGURCE: G-13304

FIELD SKETCH: Ariz. 50

GRID DATA	COORDINATES (Feet)	PLANE AZIMUTH	МАЯК	
STATE: APIZ.	502,502,47 9894,683,63	181° 08' 10" AZIM + 0 00 16	UTH MARK	
STATE: ZONE: CODE:	ж У	0		

GEODETIC	POSITION	SECONDS IN METERS	ELEVATION
DATA	LATITUDE: 33° 271 34"1975 HORTH LONGITUDE:111 54 30.4609 WEST		369.02 METERS - 1210.7 FEET
	TO STATION	GEODETIC AZIMI (From south)	TH DISTANCE (Motors)
AZIMUTH MAR	K /	SECOND-ORD 181 08 25	

neference mark 2 is a standard disk stamped, HAYDEN NO 2 1963. It is 37 feet south of power pole number 15 and 32 feet west of the center of Hayden Road.

The azimuth mark is a standard disk stamped, HAYDEN 1963. It is set in a drill hole in the southeast curb of the intersection of East He-Dowell Road and Hayden Road. It is at feet north-northwest of a power pole and 10.2 feet north of the northwest corner of an irrigation gate wall.

To reach the station from the intersection of East Mc Dowell Road and Settsdale Road in Secttsdale, go east along East Mc Dowell Road for 1.0 mile to Hayden road and the azimuth mark on the right. Turn right and go south along Hayden Road for 0.4 mile to the station on the right in front of St Daniels Catholic Church.

V	REPORT ON CONDITION OF SURVEY MARK Form Approved Budget Bareau No. 41-31923
Name or Designation: HAYDEN	Year Established: 1943
State: AFIZONZ	County: Marico 0.7 Organization Established by: 0.50 765.
	m: 3 mi S. E. From Settedale
Description published in: (Line, dond,	or quadrangle number) Guad 331113 Station 1013
Nack searched for or recovered by:	Name - Farl M. Bratcher
	Organization - U.S. Army Engineer District Les Angeles
Date of report 4 June 1971	Address - 3CC N. Los Anacho st los Ingoles C. 1.7.
Condition of marks: List letters and at	imbers found stamped in (not cast in) each mark.
Mark stamped:	Condition:
HADEN 1963 1970	Good (Appears to have been reset in 1970 in same perstion)
HAYDEN NO Z 1963	Good
HAYDEN NE 1 1963	Food
Marks accessible? Please report on the thoroughness of the	No Property owner contacted? Yes INO e search in case a mark was not recovered, suggested changes in description, need for

Perscription is adoquate. The station mark is now short link tolow ground

JUN '

FILE COPY

USCOMM-NOAA-ASHEVILLE

JULY 1966

U.S. DEPARTMENT OF COMMERCE ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION COAST AND GEODETIC SURVEY REVISED MAR 1972 AUG 1974

HORIZONTAL CONTROL DATA

Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM

sheet 1 of 2

QUAD 331113 STATION 1014 ARIZ LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

### DESCRIPTION OF REALBRESTATION

THAVEHSE

STATE: Arizona

Maricopa

CHIEF OF PARTY: C.A. Annis

NAME OF STATIONS ROLA

YEAR: 1963

DESCRIBED BY R.L. Wright

1b 7a	SURFACE-STATION MARK, UNDERGROUND-STATION MARK	DISTANCES AND DIRE OBJECTS WH	CTIONS ICH CA	TO H B	AZIMUTH MARK E SEEN PROM T	, REFERENCE A	ARKS AL	ND PRO	MHEHT
100	OBJECT		BEAR	40	DIST	MCE	-		
			BEAR		PERT	METERS	D.	RECTIO	3143
	BELL BUTTE (AMS) 10 Scottsdale, Motoro	962 (V.G.) La Water Tank	W	1	Approx	0.2 Mile	0 38	00 20	00.00
11b	Azimuth Mark Meference Mark 1 Reference Mark 2		N N	1		0.35 Mi. 13.811	135	18	55.0

The station is located along the east fence line of the Motorola Flant, 0.15 mile south of East McDowell Road, 3 miles southeast of Scottsdale and on property of the Motorola Plant.

To reach the station from the intersection of Scottsdale Road and East

McDowell Road, go east on East McDowell Hoad for 1.5 miles to the east sentrance to the Motorola Plant, turn right and go south on the macadam Istrest for about 0.1 mile to where the macadam turns right, continue straight shead on a dim graveled road along the west side of a north and south fence line for about 150 feet to the station as described.

The station mark is a standard traverse disk stamped ROLA 1963, set in top of a 12-inch concrete cylinder which projects 1 inch above the ground surface. It is 3.1 feet west of a standard metal witness post and marker, 3.5 feet west of a north and south fence line and 36.5 feet southeast of a powerline pole.

Reference mark 1 is a standard disk stamped ROLA NO 1 1963, set in top of a 12-inch concrete cylinder which projects 2 inches above the ground surface. It is 1.5 feet west of the north and south fence line, 45.7 feet north of the witness post and 42.0 feet northeast of the power line pole.

Reference mark 2 is a standard disk stamped ROLA NO 2 1963, set in top of a 12-inch concrete cylinder which projects 2 inches above the ground surface. It is 2.0 feet west of the north and south fence line and 38.0 feet south of the witness post.

The azimuth mark is a standard disk stamped ROLA 1963, cemented in a drill hole in the northwest curb of Hubbell Street and Granite Road (84 th Street). It is 26.0 feet west of the centerline of Granite Road, 30.0 feet north of the centerline of Hubbell Street, 37.0 feet southeast of the southeast corner of a yellow cinderblock house and 39.5 feet northwest of the center of the intersection.

To reach the azimuth mark from the station, go north on the graveled and macadam road for 0.15 mile to East McDowell Road, continue north on Granite Road and 84 th Street for 0.2 mile to the intersection of Granite Road and Hubbell Street and the azimuth mark is located on the northwest curb of the intersection.

RECOVERY NOTE, TRIANGULATION STATION

NAME OF STATION: ROLA

ESTABLISHED BYI C.A.A. RECOVERED BY

YEAR: 1963 STATE: Arizona RECOVERED BY! Ariz. Hwy. Deptean: 1966 COUNTY Haricopa BENCH MARK ALSO

HEIGHT OF TELESCOPE ABOVE STATION MARK

HEIGHT OF LIGHT ABOVE STATION MARK

DISTANCES AND DIRECTIONS TO AZIMUTH MARK, REFERENCE MARKS AND PROMINENT DEJECTS WHICH CAN BE SEEN FROM THE GROUND AT THE STATION						
OBJECT		DHST	FANCE			
	BEARING	PERT	METERS	- 1	PIRECT	IDH
Azimuth Mark ROLA 2 1966	N NE	(approx. 82.095	0.35 mile (25.023)	) 0 41	00 26	00.0 45.2

The station mark, reference mark 1 and reference mark 2 were destroyed and a new station mark ROLA 2, reference mark ROLA 2 # 1 1966 and reference mark ROLA 2 # 2 1966 were established.

The original azimuth mark was recovered as described and found in good condition. This mark was used for the new station.

### ADJUSTED HORIZONTAL CONTROL DATA

NAME OF STATION | ROLA

YEAR: 1963

STATE: Arizona

LOCALITY Arizona Hwy. Survey, Papago Freeway

First -ORDER Triangulation \ source: G-13304

FIELD SKETCH: Ariz. 50, 51

GRID DATA	COORDINATES (Feet)	PLANE AZIMUTH	МАЯК
STATE: Ariz. ZONE: C CODE: 0202	* 505,132.33 * 896,113.31	179° 58' 13" + 0 00 33	AZIMUTH MARK
STATE: ZONE: CDDE:	z y	m	

					_			
GEODETIC		POSITI			SECONDS IN METERS		ELEVATE	ЭН
DATA	LATITUDE: 33°	27 t 53	48".3403 59.4153	NORTH WEST		1	369.47 L212.2	
	TO STATIO	М			GEODETIC AZIMI (From south)	JTH	DISTA (Mete	NCE re)
AZIMUTH MAR	rk				SECOND-ORDE 179 58 45	R 9		
ORM 251 (7-23-20)					=		USCOMMO	- 121a* 1

MARCH 1972
U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

# HORIZONTAL CONTROL DATA

by the
Coast and Geodetic Survey
NORTH AMERICAN 1927 DATUM

sheet 2 of 2

QUAD 331113 STATION 1014
ARIZ
LATITUDE 33°00' TO 33°30'
LONGITUDE 111°30' TO 112°00'
DIAGRAM NI 12-8 MESA

33 15

FORM \$25

#### U.S. DEPARTMENT OF COMMERCE COAST AND SEODETIC SURVEY DESCRIPTION OF TRIANGULATION STATION

NAME OF STATION: ROLA 2

STATE: Arizona

соинту: Maricopa

CHIEF OF PARTY Ariz. Hwy. Dept. v

YEAR: 1966

DESCRIBED BY

моте.* 1а 7а	HEIGHT OF TELESCOPE ABOVE 3 SURFACE-STATION MARK UNDERGROUND-STATION MARK	DISTANCES AND DIREC	TIONS TO	EIGHT OF LIGHT AZIMUTH MARI E SEEN FROM T	PEFERENCE	MARKE	MD PRI	METERS. DMINËNT
:	OBJECT		BEARING	PEET	METERS		DIRECTI	OHI
desc lla lla	ROLA 1963 (destro Azimuth mark 1963 RM 1 1966 RM 2 1966	yed)	SW N N	82.095 (approx. 33.665 46.270	(25.023) 0.3 mile		00 06 28 16	00.0 17.5 28.3 37.6

The station is located along the east fence line of the Motorola Plant, 0.15 mile south of East McDowell Road, 3 miles southeast of Eccttsdale and on property of the Motorola Plant.

To reach from the intersection of McDowell Road and Scottsdale Road, go east on McDowell Road for 1.5 miles to the east entrance (Granite Road) of the Motorola Plant, turn right, south and go about 0.2 mile to the turn in to Motorola.

The station mark is a standard disk stamped " ROLA 2 BN RESET 1966 " set in a 10-inch dismeter concrete block projecting 1-inch. It is located 10 feet east of the east curb and 103 feet north of the Motorola entrance. It is 3 feet east of a standard metal witness post.

Reference mark 1 is a standard reference mark disk stamped " ROLA 2 # 1 1966 ", set in the top of a 10-inch concrete post projecting 1-inch. Reference mark 2 is a standard reference mark disk stamped " ROLA 2

# 2 1966 ", set in the top of a 10-inch concrete post projecting 1-inch. The azimuth mark is a standard azimuth mark disk stamped "ROLA 1963", comented in a drill hole in the northwest curb of Hubbell Street and Granite Road (84th Street). It is 26.0 feet west of the center line of Granite Road, 30.0 feet north of the center line of Hubbell Street, 37.0 feet southeast of the southeast corner of a yellow cinder block house and 39.5 feet northwest of the center of the intersection.

To reach the azimuth mark from the station, go north on the graveled and macadem road for 0.15 mile to East McDowell Road, continue north on Granite Road and Outh Street for 0.2 mile to the intersection of Granite Road and Hubbell Street and the azimuth mark located on the northwest curb of the intersection.

# TRAVERSE RECOVERY NOTE, YRIANGULA/LIDIN STATION

R

HAME OF STATION: ROLA 2

ESTABLISHED BY: Ariz. HWY Dopt. YEAR: 1966

STATE: Arizona

BENCH MARK ALSO

II

RECOVERED BY: 1.F., Smith

YEAR: 1977

COUNTY: Maricopa

ARLINE DISTANCE AND DIRECTION FROM NEAREST TOWN: 3 miles southeast of Scottsdale

HEIGHT OF TELESCOPE ABOVE STATION MARK

FEET.

HEIGHT OF TELESCOPE ABOVE STATION MARK

FEET.

HEIGHT OF LIGHT ABOVE STATION MARK

FEET.

DISTANCES AND DIRECTIONS TO AZIMUTH MARK, REFERENCE MARKS AND PROMINENT OBJECTS WHICH CAN BE SEEN FROM THE GROUND AT THE STATION									
m 40/2 DBJECT	DIS.		ANCE						
<u>¥ 1963</u>	BEARING	PEET	METERS	1	DIRECT	ION			
Scottsdale, Motorola Water Tank(a RM J Azimuth mark (1963) 0.35 mile Salt River Water Tank (approx. 2.0 RM 2 RM 2 to RM 3	M M M	21.51	0.305	*U 27 98 178 281	06 33 15 33 24	00.0 12 02.7 29.0 52			

The station mark, ROLA 2 RM 2 and the 1963 azimuth mark were recovered and found in good condition. ROLA 2 RM 1 was distroyed and reference mark 3 was established at this time.  $_{\scriptsize (1)+10}^{ESLA}$ 

₩...

ADJUSTED HORIZONTAL CONTROL DATA

OBS BY ARIZ H D

NAME OF STATION ROLA 2

ARIZONA

TEAR: 1966

SECOND ---

LOCALITY: ARIZONA HWY SURVEY, PAPAGO FREEWAY

\*OURCE: G-10749

(NO OBSERVATIONAL CHECK ON THIS POSITION)

i				/ N			
	GEODETIC LATITUDE:	33	27	48.94932	ELEVATION:	369.42	METERS
	GEODETIC LONGITUDE:	111	53	58.77419		1212.0	FEET

STATE COORDINATES (Fut)								
STATE & ZONE	COOE	я.	٨	Ø (OR ∆ EI) ANGLE				
ARIZ C	0202	505,186.63	896,174.86	+ 0 0 34				

TO STATION OR DEJECT	GEODETIC AZIMUTH	PLANE AZIMUTH (From math)	cont
AZIMUTH MARK 1963	178 31 44.7	178 31 11	0505

POSITION DETERMINED BY TRAVERSE FROM STATION ROLA

C8GS FORM 8402

FILE GUPY

AUGUST 1974
U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AUD GEODETIC SURVEY

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey

### ROLA 2 (continued)

The station mark is a standard disk stamped, ROLA 2 1966 BH RESET. It is set in the top of a 10 inch concrete monument which projects 4 inches. It is 26 feet east of the east curb of Granite Reef Road, 5 feet southwest of a 12 inch corner post and witness sign and 4 feet northwest of a long concrete slab which was formerly a feeding pen.

long concrete slab which was formerly a feeding pen.

Reference mark 2 is a standard disk stamped, ROLA 2 no 2 1966. It is
set in the top of a 10 inch concrete monument which projects 2 inches. It
is 50 feet south of the witness sign, 23 feet east of the east curb and

2 1/2 feet west of the concrete slab.

Reference mark ) is a standard disk stamped, ROLA 2 NO 3 1966 1971. It is set in a drill hole in the east curb of Granite Reef Road. It is on line with the north wall of the power sub-station. It is 30 feet west of the witness sign and 21 feet east of the center line of Granite Reef road. The azimuth mark is a standard disk stamped, ROLA 1963. It is set in

The azimuth mark is a standard disk stumped, which is to see a drill hole in the curb at the northwest intersection of East Hubbell Street. 24 feet southeast of the southeast corner of the home at 6346 East Hubbell Street and 9 feet southeast of a fire hydrant. The mark is 0.2 mile north of East McDowell Road.

To reach the station from the intersection of Scottsdale Road and East McDowell Road in Scottsdale go east along East McDowell Road for 1.5 miles to Granite Reef Road. Turn right and go south for about 0.2 mile to the station on the left.

### RECOVERY NOTE, TRIANGULATION STATION

R

331113

NAME OF STATION, RULLA 2

ESTABLISHED BY ATIZ, HAY Dept. YEAR, 1966
RECOVERED BY. Charles Hovak YEAR, 1974
ARILIME DISTANCE AND DIRECTION FROM HEAREST TOWN. 3

MILION OF TELESCOPE ABOVE STATION MARK

5 FEET.

HEIGHT OF LIGHT ABOVE STATION MARK

5 FEET.

DISTANCES AND DIRECTIONS TO AZIMUTH MARK, REF	ERENCE MAP	KS AND PROMIN	ENT OBJECTS O	THICH CA	H BE SI	EEH
		DIST	ANCE			
COJECT	BEARING	FEET	METERS		DIREC.	FION
szimuth mar. 1905 0.35 mile Salt Miver sater Tank 2.0 miles nH 2 nH 3	Ha S W	ц6.29 27.50	14.110 8.381	80 183 289	00 18 10 17	00°0 26.0 46 58

deference marks 2 and 3 and the 1963 azimuth mark were recovered in good condition and as described in 1971. The station mark was found broken of about 1 foot below the ground surface. A new station mark was set over the underground station at this time. The old disk was used and 1974 was added to the stamping. A new witness post was set 1 foot northwest of the station.



AZ 168

QUAD 331113

STATION 1014

141110E 33 000' 10 33 30' 10 112 000'

DIAGRAM NI 12-8 MESA

JULY 1966 PUBLISHED AND PRINTED BY: U.S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY WASHINGTON D.C.

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey **NORTH AMERICAN 1927 DATUM** 

STATE: Arizona

QUAD 331113 STATION 1015 ARIZ LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

> 330/51 111045

ADJUSTED HORIZONTAL CONTROL DATA

YEAR: 1963 HAME OF STATION: PIMA LOCALITY: Arizona Hwy. Survey, Papago Freeway

First -ORDER Traverse SCURCE: 0-13304 PIELO SKETCH: ATIZ. 50

GRID DATA	COORDINATES (Foot)	PLANE AZIMUTH #IOR &g) ANOLE	MARK
ETATE: APIZ. ZONE: C CODE: 0202	* 507,741.90 * 895,954.61	184° 02° 42° + 0 00 50	AZIMUTH MARK
STATE: ZONE: CODE:	я У		

	POSITION	SECONDS IN METERS	ELEVATION	
GEODETIC DATA	LATITUDE: 33° 27' 46".7648 NOR LONGITUDE: 111 53 28.6110 WES	T T	BENCH METER MARK FEET	
	TO STATION	GEODETIC AZIMUTH	DISTANCE (Melers)	
AZIMUTH MAR	K	SECOND-ORDER 184°03'31"?		

USCOMM-ESSA-ASHEVILLE

VICENIA AND INCIDE

U.S. DEPARTMENT OF COMMERCE

DESCRIPTION OF THE BASINATION STATION

TRAVERSE STATE APIZODA

COUNTY-

Haricopa

CHIEF OF PARTY C.A. Annis

HAME OF STATION: PTMA

YEAR: 1963

DESCRIBED BY: R.L. Wright

I METERS, HEIGHT OF LIGHT ABOVE STATION MARK ] HEIGHT OF TELESCOPE ABOVE STATION MARK HETERS. DISTANCES AND DIRECTIONS TO AZIMUTH MARK, REFERENCE MARKS AND PROMINENT DEJECTS WHICH CAN BE SEEN FROM THE GROUND AT THE STATION SURFACE-STATION MARK. UNDERGROUND-STATION MARK 7a DISTANCE DIRECTION METERS 0 00 00.00 81<sub>4</sub> 31.6-52.74 46 39.41 12.014 11b Reference Mark 1 p.2 Mile Azimuth Mark Approx. Desc 11.137 268 S Reference Mark 2

The station is located along the west side of a graveled road, 0.2 mile south of East McDowell Road, 3.2 miles southeast of Scottsdale, 3.5 miles northeast of Tempe and on road right-of-way.

To reach the station from the intersection of Scottsdale Road and East McDowell Road, go east on East McDowell Road for 2.0 miles to a graveled crossroads and the azimuth mark is located on the left, turn right and go south on the graveled road for 0.2 mile to the station on the

right as described. The station mark is a standard traverse disk stamped PIMA 1963, set in top of a 12-inch concrete cylinder which projects 1 inch above the ground surface. It is 3.2 feet east of a north and south fence line, 3.5 feet northeast of a standard metal witness post and marker, 7.9 feet southsouthwest of a powerline pole number 4 and 22.5 feet west of the approxi-

mate center of the graveled road.

Reference mark 1 is a standard disk stamped PTMA NO 1 1963, set in top of a 12-inch concrete cylinder which projects I inch above the ground surface. It is 1.8 feet east of the north and south fence line, 25.0 feet west of the approximate center of the graveled road, 32.3 feet north of the powerline pole number 4, 42.2 feet north of the witness post and is about the same elevation as the station mark.

Reference mark 2 is a standard disk stamped PIMA NO 2 1963, set in top of a 12-inch concrete cylinder which projects 1 inch above the ground surface. It is 4.0 feet northeast of the southeast fence corner, 24.5 feet west of the approximate center of the graveled road, 33.7 feet south of the witness post, 43.9 feet south of the powerline pole number 4 and is about the same elevation as the station mark.

The azimuth mark is a standard disk stamped FIMA 1963, cemented in a drill hole in the west end of a concrete culvert abutment. It is 36.0 feet north of the centerline on East McDowell Road, 45.0 feet east of the approximate center of Pima Road and 11.3 feet west of the east end of the culvert abutment.

\*Refers to cores in manuals of trinagulation and stare publications of trinagulation. †Direction-angle measured clockwise, referred to initial station for necessary, when no tripmometric leveling is being done.

33° /5'

111045

PUBLISHED AND PRINTED BY: U.S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY WASHINGTON D.C.

HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM

QUAD 331113 STATION 1016 ARIZ LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

U.S. DEPARTMENT OF COMMERCE

DESCRIPTION OF THE PERSON STATION STATE: Arizona

TRAVERSE

COUNTY:

Maricopa

CHIEF OF PARTY: C.A. Annis

NAME OF STATION: GRIND

YEAR: 1963

DESCRIBED BY: R.L. Wright

15 78 -	SURFACE-STATION MARK, UNDERGROUND-STATION MARK	DISTANCES AND DIRI OBJECTS W	ECTIONS TO	AZIMUTH MARI E SEEH PROM T	REFERENCE HE GROUND AT	HARKS AN	ID PRO	MINERT
• -	OBJECT		BEARING	DIST	NCE			
	-		BEARING	PEET	METERS	DI	RECTIO	2441
	PIMA	(V.G.)				. 0.	oó	00.00
esc.	Azimuth Mark	10	N .	Approx.	0.3 Hi.	76	59	11.96
шь 🗸	Reference Mark 1		N -	31.42 =	9.575	79	Γá	39
	BARK	(V.G.)	R ·	Approx.	0.5 Mi.	181	16	19.74
шь 1	Reference Mark 2	••	s ,	32.1.8	a RoR	256	59	Eo

The station is located along the east side of a graveled road, 0.3 mile south of East McDowell Road, 3 1/2 miles southeast of Scottadale, 4.0 miles northwest of Mesa and on the road right-of-way.

To reach the station from the intersection of Scottsdale Road and East McDowell Road, go east on East McDowell Road for 2.0 miles to a crossroads; (Pima Road), continue east on McDowell Road for 0.5 mile to a graveled side road right and the azimuth mark is located in the south-west corner of the intersection, turn right and go south on the graveled road for 0.3 mile to the station on the left as described .-

The station mark is a standard traverse disk stamped GRIND 1963, set in top of a 12-inch concrete cylinder which projects 2 inches above the ground surface. It is 2.6 feet west of a standard metal witness post and marker, 28.5 feet east of the approximate center of the graveled road and 46.0 feet east-northeast of a powerline pole. -

Reference mark 1 is a standard disk stamped GRIND NO 1 1963, set in top of a 12-inch concrete cylinder which projects 4 inches above the ground surface. It is 2.0 feet west of a north and south fence line, 27.0 feet east of the approximate center of the graveled road, 31.9 feet north of the witness post and 63.5 feet northeast of the powerline pole.

Reference mark 2 is a standard disk stamped GRIND NO 2 1963, set in

top of a 12-inch concrete cylinder which is flush with the ground surface. It is 2.0 feet west of the north and south fence line, 27.0 feet east of the approximate center of the graveled road, 32.1 feet south of the witness post and 48.0 feet southeast of the powerline pole.

The azimuth mark is a standard disk stamped GRIND 1963, cemented in a drill hole in the northwest corner of a concrete irrigation canal control gate. It is 8.0 feet southeast of a powerline pole, 49.5 feet south of the center line of East McDowell Road and 25.5 feet west of the approximate center of the graveled road,

\*Refers to notes in manuals of triangulation and state publications of triangulation. | Direction-angle measured clockwise, referred to initial station. | To netcost meter only, when no trigonometric leveling in being done.

### ADJUSTED HORIZONTAL CONTROL DATA

NAME OF STATION: GRIND

YEAR: 1963

HAN ALMANDA BARRIOTA

STATE: Arizona

CRID DATA

STATE: Ariz. :

LOCALITY: Arizona Hwy. Survey, Papago Freeway

First -ORDER Traverse

COORDINATES (Fee!)

SCURCE: 0-13304

PLANE AZIMUTH

510.425.39 178° 30' 00"\AZIMUTH MARK

FIELD SKETCH: Ariz. 50

MADE

CODE: 0202		la		
STATE: ZONE: CODE:	y			
GEODETIC		ITION	SECONDS IN METERS	ELEVATION
DATA	LATITUDE: 33° 27	1 41"3487 NORTH 2 56.9360 WEST		BENCH METERS MARK FEET
	TO STATION		GEODETIC AZIMUT	H DISTANCE (Molera)
AZIMUTH MARK	KX		SECOND-ORDE 178°51'08"	4
		The state of the s		

JAN 1967 U.S. DEPARTMENT OF COMMERCE **ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION** COAST AND GEODETIC SURVEY

REVISED: JULY 1971

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM

QUAD 331113 STATION 1017

LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

330/51 1110 45'

U.S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY

### DESCRIPTION OF TRIANCULATION STATION

TRIVE'SE ' STATE: Arizona /

COUNTY Faricopa

CHIEF OF PARTY:

HAME OF STATION: BARK

C. . Annis

YEAR: 1963 -

DESCRIBED BY: H.D. Filis -

AM)

HEIGHT OF TELESCOPE ABOVE STATION WARK ] . METERS, 1 HEIGHT OF LIGHT ABOVE STATION WARK 1 h | SURFACE-STATION MARK. DISTANCES AND DIRECTIONS TO AZINUTH MARK, REPERENCE MARKS AND PROMINENT

7a	UNDERGROUND-STATION MARK	OBJECTS WH	WHICH CAN BE SEEN FROM THE GROUND AT THE STATION							
14	OBJECT		SEARING	DIST	ANCE		RECTIO	1111		
			02-1111110	PEET	METERS		MECIN	"" I		
	GRIND					*0	00	00:00		
	Section Corner (Phoeni	x <sup>C</sup> 1ty Survey)	11	approx. 0.	35 mile	72	21	03.021		
desc	Azimuth Kark	•	И	approx. 0.	35 mile	72	50	49.19		
11b	R.M. Fo.1		N	32.00	9.755	70	15	33		
	R.F. No. 2		S	32,50	9.997	256	34	341		
'	Scottsdale, Motorola Y	ater Tank	war	approx. 2.	o miles	354	39	57.6		

The atotion is located about & miles southeast of Scottsdale, about 3 1/2 miles northwest of Mesa and about 1/2 mile south of Mast Mc Bosell Road.

To reach the station from the intersection of East Vo Dowell Road and Scottsdale Road, so east on East Mc Dowell Road for 3.0 miles to a side road right, azimuth mark and section corner as described, turn right, go south on dirt road for 0.35 mile to

Station mark, a standard traverse disk set in the top of a round concrete post which projects 1 inch and stamped B'RK 1963. The mark is 20 feet west of center of dirt road, 7 feet east of the east edge of a concrete irrigation ditch, 2.7 feet west of fonce and 2.5 feet west-southwest of ritness post.

Reference mark 1, a standard disk set in the top of a round concrete post which projects 2 inches and stamped BARK NO 1 1963. The mark is 32.1 fect north of witness post, 30 feet west of center of dirt road, 8 feet east of the east edge of a concrete irrigation ditch and 1.5 feet west of fence.

Reference mark 2, a standard disk set in the top of a round concrete post which projects 1 inch and starmed BARK NO 2 1963. The mark is 32.5 feet south of witness post, 20 feet west of center of dirt road, 7.5 feet east of the east edge of a corcrete irrigation ditch and 2 feet west of fence.

Aziruth mark, a standard disk set in a drill hole in a concrete culvert abutment and stamped ENEK 1963. The mark is 50.7 feet south of center line of East Fc Donell Road, 36 feet couth of the north culvert abutment, 13.7 feet southwest of a fence corner and 17 feet east of center of dirt road.

Section Corner, a Fhoenix City Survey Mark located in the center of East Mc Dowell Road 3 miles east of Scottedale Road and 0.35 mile north of the station. The mark is a 5/6 inch rod net in concrete about 6 inches below the surface of the road in a 10 inch hand hole with a metal cover.

### RECOVERY NOTE, TRIANGULATION STATION

ESTABLISHED BY: C.A.A. RECOVERED BY: L.P. Smith

YEAR: 1963 STATE: APIZONA BENCH MARK(8) ALSO X YEAR: 1970 COUNTY: Maricopa AIRLINE DISTANCE AND DIRECTION FROM NEAREST TOWN: 3 1/2 miles northwest of Hesa

Detailed statement as to the fitness of the original description; including marks found, stampings, changes made, and other pertinent facts: All marks were recovered and found in good condition. A new route to the station follows.

To reach the station from the intersection of East McDowell Road and Scottsdale Road in Scottsdale, go east along East McDowell Road for 3.0 miles to a side road on the right. Turn right and go south for 0.4 mile to the station on the right about 50 yards past a green home on the left. The station mark and reference marks 1 and 2 are slightly below flush. A witness post was set at the west side of the station

### ADJUSTED HORIZONTAL CONTROL DATA

NAME OF STATION: BARK

YEAR: 1963

STATE: Arizona

LOCALITY: Arizona Hwy. Survey, Papago Freeway

ARIZ

First -ORDER Traverse

SCURCE: 0-13304

FIELD SKETCH: Ariz. 50

GRID DATA	COORDINATES (Feet)	PLANE AZIMUTH	MARK	
STATE: AP12. ZONE: C CODE: 0202	513,012.39 894,820.52	181° 38' 27"\ + 0 01 25	AZIMUTH MARK	
STATE: ZONE: CODE:	y y	W		

GEODETIC		POSITION		SECONDS IN METERS	ELEVATION
DATA	LATITUDE: LONGITUDE:	33° 27' 35",526 111 52 26.401	5 NORTH 2 WEST		366.32 метея 1201.8 геет
	TO \$	TATION		GEODETIC AZIMI	JTH DISTANCE (Motors)
ZIMUTH MAR	K			SECOND-ORDE 181°39'51"	R 9
Azimuth Mar	k is also	a Bench Mark.			

USCOMM-NOAA-ASHEVILLE

R

JULY 1966

U.S. DEPARTMENT OF COMMERCE ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION COAST AND GEODETIC SURVEY REVISED: JULY 1971

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM

IRAK

ARIZONA

168A

QUAD 331113 STATION 1018
ARIZ
LATITUDE 33°00' TO 33°30'
LONGTPUDE 111°30' TO 112°00'
DIAGRAM NI 12-8 MESA

33° 15' |11° 45'

U.S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY

DESCRIPTION OF THE SHORDWARES STATION

TRAVERSE state: Arizona

ona county: Haricopa

CHIEF OF PARTY: C.A. Annis

NAME OF STATION: BALZ

FORM 525

YEAR: 1963

DESCRIBED BY: R.L. Wright

HOTE.	MEIGHT OF TELESCOPE ABOVE S			EIGHT OF LIGH				HETERS.
1b 7a	SURFACE-STATION MARK, UNDERGROUND-STATION MARK	DISTANCES AND DIRECTS WH	TIONS TO	AZIMUTH MARI E SEEN PROM T	, REFERENCE HE GROUND AT	A ZRRAH TR BHT	NO PRO ATION	MINENT
1 "-	OBJECT		BEARING	DIST	ANCE		MRECTI	DM1
	OBJECT		BEARING	PEET	METERS	L '	MMECII	U#+
	BAHK					ъ	001	00,00
Desc	Azirrith Hark		11 1	Approx.	0.4 Mile	91	23	31.49
	1/4 Corner (Phoenix	City Survey)	H -	Approx.	0.4 Mile	92	19	42.29
11b	Reference Mark 1	-203 1102 1037	H -	43.28	13.193	92	42	45 4
11b	Reference Mark 2		S ·	43.71	13.325	272	11	20

The station is located along the east side of a north and south graveled road, 0.4 mile south of East HcDowell Road, 3.2 miles north-northwest of Mesa, 4.2 miles southeast of Scottsdale and on road right-of-way.

To reach the station from the intersection of Scottsdale Road and East McDowell Road, go east on East McDowell Road for 1.5 miles to a crossroad and the azimuth mark is located in the southwest corner of the intersection and the 1/4 section mark is located in the center of the Intersection. Turn right and go south on the graveled road for 0.4 mile to the station on the left as described.

The station mark is a standard traverse disk stamped BALZ 1963, set in top of a 12-inch concrete cylinder which projects 1 inch above the ground surface. It is 3.0 feet west of a north and south fence line, 3.8 feet northwest of a standard metal witness post and marker and 28.0 feet cent of the enveryment center of the ground road.

Hese northeaproximate center of the graveled road.

Reference mark 1 is a standard disk stamped BALZ NO 1 1963, set in top of a 12-inch concrete cylinder which is flush with the ground surface. It is 3.5 feet west of the north and south fence line, 28.5 feet east of the approximate center of the graveled road and 46.7 feet north of the witness post.

Reference mark 2 is a standard disk stamped BALZ NO 2 1963, set in top of a 12-inch concrete cylinder which projects 4 inches above the ground surface. It is 3.0 feet west of the north and south fence line, 28.0 feet east of the approximate center of the graveled road and 40.3 feet south of the witness post.

The azimuth mark is a standard disk stamped BALZ 1963, cemented in a drill hole in the southwest corner of an irrigation ditch control box which projects 3 feet above the ground surface. It is 2.7 feet north of a fence line, 11.0 feet west-northwest of a fence corner, 20.5 feet southwest of a powerline pole, 31.0 feet west of the approximate center of the graveled road and 51.0 feet south of the centerline of East McDowell Road.

The 1/4 section mark is located in the center of the intersection about 60.0 feet north-northeast of the azimuth mark. It is a 5/8 inch rod set in concrete located about 6 inches below the road surface in a 10-inch hand hole with a steel lid.

\*Refers to notes in manuals of triangulation and state publications of triangulation. | Direction-angle measured clockwise, referred to initial statisfied.

1 To nearest meter only, when no triponometric leveling is being done.

UNCOMM-DC 27171-Pay

### ADJUSTED HORIZONTAL CONTROL DATA

NAME OF STATION: BALZ

YEAR: 1963

STATE: Arizona

LOCALITY: Arizona Hwy. Survey, Papago Freeway

First -ORDER Traverse

SCURCE: G-13304

FIELD SKETCH: Ariz. 50

GRID DATA	COORDINATES (Feet)	PLANE AZIMUTH #(OR Ag) ANGLE	MARK
STATE: APIZ. ZONE: C CODE: 0202	* 515,703.83 7 894,941.18	178° 49' 30" + 0 01 42	AZIMUTH MARK
STATE: ZONE: CODE:	Σ γ	1 13	

	POSITION	SECONDS IN MÉTERS	ELEVATION
DATA	LATITUDE: 33° 27' 36"7084 NORTH LONGITUDE: 111 51 54.6307 WEST		367.41 METER: 1205.4 FEET
	TO STATION	GEODETIC AZIMUTH (From south)	DISTANCE (Weters)
AZIMUTH MARI		SECOND-ORDER 178°51'12"2	1-1-1
Azimuth Mar	k is also a Bench Mark.		
REZIMIUNI PROI	g 15 6150 6 Delicit Park,		
			<i>.</i>
O4M 381 (7-32-16)			USCOMED (SISE

FILE COPY

USCOMM-NOAA-ASHEVILLE

U.S. DEPARTMENT OF COMMERCE ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION COAST AND GEODETIC SURVEY

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM

### TRAVERSE STATION RECOVERY NOTE, TRIANSVIVATION

R

NAME OF STATION BALZ RECOVERED BY . L.P. Smith

YEAR: 1963 STATE: Arizona YEAR: 1971 COUNTY Maricopa

BENCH MARK ALSO TA

AIRLINE DISTANCE AND DIRECTION FROM NEAREST TOWN: 3.2 miles north-northwest of Mesa HEIGHT OF TELESCOPE ABOVE STATION MARK 5 FEET. HEIGHT OF LIGHT ABOVE STATION MARK 5 FEET.

DISTANCES AND DIRECTIONS TO AZINUTH MARK, REF FROM THE GRO	ERENCE MA	RKS AND PROMI	NENT OBJECTS I	HICH CA	N BES	EEH
		DIS	TANCE			
OBJECT	BEARING	PERT	METERS	<u></u>	DIRECT	LIOH
Azimuth mark (1963) 0.4 mile RM : Salt River Water Tank 1/2 mile RM : RM : to RM 3	Nw N N	43.33 106.45 80.23	13.207 (32.446)	°0 1 6 318	00 17 33 30	00:00 38 40:1 09

The underground station mark, the azimuth mark and reference mark 1 were recovered. The azimuth mark was repaired in place, reference mark | has been struck by michinery but appears to be in good condition. A new station mark and reference mark; were established at this time. Due to the overlapping of farm work and road maintenance over the station mark and reference mark | a reference mark 3 recovery point was established.

The station mark is a standard disk stamped, EALZ 1963 1971. It is set in the top of a 12 inch concrete monument which is about : foot below the ground surface at the top of the grader ditch. It is 25 feet east of the center of Agency Road and 1 foot west of the witness post

and sign.
Reference mark : is a standard disk stamped, BALZ 30 1 1963. It is set in the top of a 12 inch concrete monument which is about flush with the ground surface. It is set at the top of the east grader ditch, 24 feet east of the center of Agency Road and 43 1/2 feet north of the wit-

Reference mark 3 is a standard disk stamped, BALZ NO 3 1963 1971. It is set in the top of a 12 inch concrete monument waich projects : inch. It is 40 feet west of the center of Agency Road, 18 feet east of the southeasterly most of several trees and 1 foot east of a witness post and

sign.
The azimuth mark is a standard disk stamped, BALZ 1963. It is set in a drill hole in the top of a concrete headwall in the southwest intersection of East McDowell Road and Agency Road.

To reach the station from the intersection of Scottsdale Road and East McDowell Road in Scottsdale, go east along East McDowell Road for 3 1/2 miles to Agency Road and the azimuth mark on the right. Turn right and go south along Agency Road for 0.4 mile to the station on the left.

REFERENCE MARK 3 RECOVERY POINT			
Salt River Water Tank	0	00	00.0
RM 1	109	Οlμ	35
BALZ 1963 1971	1 30	34:	59

. Name of third of party should be inserted here. The person the structure infect the station from fair her home as the end of the

331113 STATION 1018 ARIZ LATITUDE 33°001 TO LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-5

U.S. DEPARTMENT OF COMMERCE ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION COAST AND GEODETIC SURVEY REVISED: JULY 1971

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM

QUAD 331113 STATION 1019 ARIZ LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

111045

PBRM 525

U.S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY

### DESCRIPTION OF THE HUDDING STATION

TRAVERSE

STATE: Arizona

county: Maricopa

NAME OF STATION: CHIEF OF PARTY: FINCH

C.A. Annis

YEAR: 1963

DESCRIBED BY: R.P.K.

			- 5 - 5				
HOTE." HEIGHT OF T	ELESCOPE ABOVE STATIC	M HARK 1.52 LE	TERS,1 H	EIGHT OF LIGH	T ABOVE STATE	DH MARK 1	METERS.
TO HADEBERON	ATION MARK, DI	TANCES AND DIRE OBJECTS WI	CTIONS TO	AZIMUTH MAR E SEEN PROM	K, REFERENCE I THE GROUND AT	HARES AND PE	THEMIMO
7a	DBJECT		BEARING	DIST	ANCE	DIREC	
	OBJEC!		BENNING	PEET	METERS	DINEC	LIONI
desc Azimuth	iale Motorola W 1 Mark AMS) 1960	ater Tank		45.44 approx. approx. approx.	13.850 miles 0.4 mile 0.4 mile 12.762	00 00 104 38 198 22 282 51 283 30 285 18	00.00 43 43.5 21.54 47.3

/Road (Phoenix City Survey) Station is located about 4 1/2 miles southeast of Scottsdale, about 3 miles north-northwest of Mesa, about O.k mile south of East Mc Dowell Road and on the east right-of-way of north-south gravel road.

To reach from the intersection of Scottsdale Road and East Me Dowell Road about 1 mile south of Scottsdale, go east on East Mc Dowell Road for 3.5 miles to stop light and Salt River Project on left, continue east on East Mc Dowell Road for 0.5 mile to a side road right, (Azimuth Mark and TT Y3 (AMS) Mark is in southwest corner of this intersection), turn right and go south for O.h mile to station on left as described.

Station mark, a standard traverse disk stamped FINCH 1963, is set in the top of a concrete cylinder which projects about 2 inches above the ground. The mark is 99 feet southeast of a power pole with a transformer, 22 feet east of center of gravel road, 4.3 feet north-northwest of witness post and 3 feet west of fence.

Reference mark 1, a standard reference disk stamped FINCH NO 1 1963. is set in the top of a concrete cylinder which is set flush with the surface of the ground. The mark is 63.5 feet southeast of a power pole with a transformer, 45.5 feet north of the witness post, 22 feet east of center of road and 2.5 feet west of fence.

Reference mark 2, a standard reference disk stamped FINCH NO 2 1963, is set in the top of a concrete post which is set flush with the surface of the ground. The mark is 66 feet northeast of a power pole, 42 feet south of the witness post, 22 feet east of center of road and 3 feet west of fence.

Azimuth mark, a standard azimuth disk stamped FINCH 1963, is set in a drill hole in the southeast retaining wall of water reservoir. The mark is 89 feet south of center of East Mc Dowell Road, 50 feet west of center of gravel road, 22 feet north-northwest of transformer cabinet and 19.5 feet north of water pump.

TT Y3, is a Corps of Engineers Army Map Service disk stamped TT Y3 1960, is set in the top of a concrete cylinder which is set below the surface of the ground about 6 inches. The mark is 35.5 feet south of center of East Mc Dowell Road, 29 feet west of center of gravel road, 3 feet north of fence and 2 feet north of the witness post.

Section Corner, is a Phoenix City Survey Mark located on East Mc Dowell Road. The mark is a 3/8 inch rod which is about 6 inches below the surface of the road under a hand hole cover. The mark is in the center of road.

To reach the Section corner from Scottsdale Road and East Mc Dowell Road about 1 mile south of Scottsdale, go east on East Hc Dowell Road for 4.0 mile to a side road right, continue east on East Hc Dowell Road for about 200 feet to a side road north. Section Corner is at this intersection.

### ADJUSTED HORIZONTAL CONTROL DATA

HAME OF STATION: FINCH

YEAR: 1963

STATE: APIZONS

LOCALITY: Arizona Hwy. Survey, Papago Freeway

First -oscen Traverse

SCURCE: 0-13304

FIELD EXETCH: Ariz. 50

GRID	DATA	cc	ORDINATES (Feet)		dal Ah				MARK	
ZONE:	Ariz. C O2O2	y	518,338.43 895,050.70	178° + 0	01	27" 59	AZIMUTH	MARK		
STATE: ZONE: CODE:		z y			39					

	POSITION	SECONDS IN METERS	ELEVATION
GRODETIC	// -/ -	RTH ST	369.39 METERS 1211.9 FEET
	TO STATION	GEODETIC AZIMI (From south)	JTH DISTANCE (Melers)
AZIMUTH MAI	ak.	SECOND-ORI 178°16'25	ER 18

RECOVERY NOTE, TRIANGULATION STATION

OUAD 331113

Recovered SY: L.F. Smith

NAME OF STATION: FINCH

ESTABLISHED BY: C.A.A.

YEAR 1963 YEAR: 1971

STATE: APIZODA BENCH MARK(S) ALSO COUNTY: Maricopa

AIRLINE DETANCE AND DIRECTION FROM NEAREST TOWN: 3 miles north-northwest of Mosa

Detailed statement us to the fitness of the original description; including moths found, stumplags, changes made, and other pertinent facture

Only the azimuth mark was recovered. The station mark was found in a broken monument. A search was made for the underground station with out success.

Jorg w. wolfield

U.S. DEPARTMENT OF COMMERCE ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION COAST AND GEODETIC SURVEY REVISED: JULY 1971

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM ARIZONA

1684

QUAD 331113 STATION 1020 ARIZ LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

> 33° 15' 111° 45'

FORM 525

NAME OF STATION

U.E. DEPARTMENT OF COMMERCE

### DESCRIPTION OF TRYANGUCATION STATION

TRAVERSE

STATE: Arizona

COUNTY: Maricopa

CHIEF OF PARTY: C.A. Annis

YEAR: 1963

DESCRIBED BY: R.P.K.

1b 7a	SURFACE-STATION MARK, DISTANCES AND DIRECT WHO DESCRIPTION MARK OBJECTS WHO	ICH CAN E	E SEEM PROM	RK, REFERENCE I THE GROUND AT	MARKS AND PROMINEN THE STATION	IT
(a	OBJECT	BEARING	DIS	TANCE	DIRECTION	
	565601	- CANADO	PEET	HETERS	DIRECTION	
	BELL BUTTE (AMS) 1962			12	28 45 19.1	)"
	Scottsdale, Motorola Water Tank	W	approx.	1 miles	28 45 19.1 72 21 23.88	
lesc			approx.	0.25 m.		
	1/4 Corner (Phoenix City Survey)	119	approx.	ф. 25 п.	80 18 25.90	,
lla	R.M. No. 1	l N	37.78	11.515	113 30 23	
	Unidentified Mater Tank	' 글	approx.	A miles	214 52 45.4	
	Mesa, Municipal Water Tank No. 2	SSE	approx.		282 29 48.2	
11a	R.H. No. 2	S	13.12	* 13.143	302 59 35	

Station is located about 5 1/2 miles east of Scottsdale, about 3 miles north of Mesa, about 0.2 mile south-southwest of the junction of State Highway 87 and East Mc Dowell Road and on the west side of service road.

To reach from the junction of Scottsdale Road and East Hc Dowell Road in Scottsdale, go east on East Nc Dowell Road for 4.3 mile to the Azimuth Hark on right at Golf Driving Range and irrigation gate, (1/4 Corner is about 200 feet east of Azimuth Hark in center of East Mc Dowell Road), continue east on East Hc Dowell Road for 0.1 mile to a one way black top road south, turn right and go south on one-way service road for 0.2 mile to station on right.

Station mark, a standard traverse disk stamped LEHI 1963, is set in the top of a concrete cylinder which projects about 5 inches. The mark is 92 feet west of center of road, 4 feet east of fence and 3.5 feet east of the witness post.

Reference mark 1, a standard reference disk stamped LEHI NO 1 1963, is set in the top of a square concrete post which projects about 2 inches. The mark is 86 feet west of the center of road, 37.4 feet north of the witness post and 1 foot east of the fence.

Reference mark 2, a standard reference disk stamped LEHI NO 2 1963, is set in the top of a square concrete post which projects about 2 inches. The mark is 109 feet west of the center of road, 43 feet south of the witness post and 1 foot east of the fence.

Azimuth mark, a standard azimuth disk stamped LEHI 1963, is set in a drill hole in the southwest retaining wall of irrigation gate. The mark is 45 feet west of center of driveway entrance to Golf Driving Range, but feet south of center of East Mc Dowell Road and 15 feet west of irrigation gate.

1/4 Corner, is a Phoenix City Survey Mark located on East Mc Dowell Road about 3 1/2 miles east of the Hotorola Corporation in Scottsdale. Statton is a 3/8 inch rod driven in the blacktop about 5 inches below the road surface and is under a round metal handhole cover.

\*Refers to noces in manuals of triangulation and state publications of triangulation. Direction-angle measured clockwise, referred to initial station.

| To necest meter only, when no triponometric leveling is being done.

ADJUSTED HORIZONTAL CONTROL DATA

YEAR: 1963

NAME OF STATION, LEHI

LOCALITY: Arizona Hwy, Survey, Papago Preeway

First -onces Triangulation scuece: G-13304

FIELD SKETCH: AP1Z. 50

GRID DATA	COORDINATES (Feet)	PLANE AZIMUTH #IOR &a) ANGLE	MARK
STATE APIZ. ZONE: C CODE: 0202	521,966.30 895,996.74	+ 0 02 23 N	AZIMUTH MARK
ETATE: 204E: CODE:	у	4	

	POSITION	SECONDS IN METERS	ELEVATION
GEODETIC	LATITUDE: 33° 27' 47"1158 \ HORTH LONGITUDE: 111 50 40.6993 \ WEST		370.91 METERS 1216.9 FEET
	TO STATION	GEODETIC AZIMU (From south)	TH DISTANCE (Melers)
AZIMUTH MAF	oc .	SECOND-ORD 133°36'48'	er 17
Azimuth Ma	rk is also a Bench Mark.		
		6-100	
ORM 181 (7-32-80)			DECOMPOS INTERP

FILE COPY

U5COMM-NOAA-ASHEVILLE

ARIZONA

U.S. DEPARTMENT OF COMMERCE ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION COAST AND GEODETIC SURVEY

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM

RECOVERY NOTE, THINKING THE STATION

R

NAME OF STATION: Light ESTABLISHED BY: Light YEAR: 1903 STATE: Arizona BENCH MARK ALSO X RECOVERED BY: Light YEAR: 1903 COUNTY: Harizona COUNTY: Harizona Albune Distance And Distection From Nearest Town: 5 1/2 miles onst of Scottodate Height of telescope above station Mark 5 FEET.

distances and directions to azimuth mark, reference marks and prominent objects which can be seen from the dround at the station						EM
	DISTANCE		TANCE			
OBJECT	BEARING	PEET	METERS		DIRECT	юн
Azimuth mark (approx. 0.25 mile) RI 3 Unidentified water Tank (approx. RN 4 Scottsdale, Notorola Water Tank 1 (approx. 3 miles)	H miles S 963 W	37.61 enst) 43.08	11.464 13.131	*0 41 142 230 316	00 13 31 24	00'.0 16 34.4 38 01.7

The surface station mark and reference marks 1 and 2 were graded out or badly disturbed. The underground station mark was recovered and found in good condition. The disks were restamped and the old monuments reused. The station is set on the original position over the underground mark.

The station is set on the original position over the unlerground mark. The station mark is a standard disk stamped, Land 1965 1970. It is set in the top of a 12 inch concrete monument which projects b inches. It is 106 1/2 feet north of power pole number \$ 62 over \$FC-8 535, 91 feet west of the center of a paved road 3 1/2 feet cast of a witness post set in a fence line and 1/2 foot west of a low witness post and sign.

Reference mark 3 is a standard disk stamped, LEM 10 3 1963 1970. It

is set in the top of a 12 inch concrete monument which projects about 12 inches. It is 140.1 feet north of the power pole and ; foot east of a witness sign set in the fence line.

Reference mark 4 is a standard disk stamped, LEHI NO 4 1963 1970. It is set in the top of a 12 inch concrete monument which projects about 12 inches. It is 63.4 feet north of the power pole and 1 1/2 feet east of the fonce line and witness sign.

The azimuth mark is a standard disk stamped, LEHI 1963. It is set in a drill hole in the southwest retaining wall of an irrigation gate. It is 15 feet west of the driveway leading to the golf course and the feet south of Last Ne Dowell Road. The retaining wall projects several feet.

To reach the station from the intersection of East Ne Dowell Noad

To reach the station from the intersection of East Ne Dowell Noad and Scottsdale Road in Scottsdale, go east along East Ne Dowell Road for 4.3 miles to the azimuth mark on the right, continue shead for about 0.1 mile to an intersection. Turn right on paved road leading south along the east side of the golf course for 0.2 mile to the station on the right in the fonce line.

Name of thief of party should be inserted here. The person who actually risited the station should sign his refer at the end of the recovery note,

FILE COPY
SEP 1971

QUAD 331113 STATION 1020
ARIZ
LATITUDE 33°00' TO 33°30'
LONGITUDE 111°30' TO 112°00'
DIAGRAM NI 12-5 MESA

JULY 1966 PUBLISHED AND PRINTED BY: U.S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY WASHINGTON D.C.

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM

QUAD 331113 STATION 1021 ARIZ LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

> 330 15 111045'

ADJUSTED HORIZONTAL CONTROL DATA

NAME OF STATION: VAL VISTA

YEAR: 1935, 1963

STATE: APIZONS

LOCALITY: Yuma to Stewart Dam

First -onnen Triangulation \ scuece: G-3022 \ G-13304

FIELD SKETCHI APIE. 8-II. 50

GRID DAT		COORDINATES (Foot)		JE AZIN ∆ai} AN		-	MAR	EK	
ETATE: APS ZONE: C COOE: 020	7	550,472.68 900,245.64	224°	571 05	20"/	AZIMUTH MARK	RM	3	
STATE: ZONE: CODE:	×								

		POSITI	ON	SECONDS IN METERS	ELEVATION
DATA	LATITUDE: LONGITUDE:	33° 28'	2878339 NORTH 04.1172 WEST		1344 PEET
	то	STATION		GEODETIC AZIMUT	TH DISTANCE (Molece)
AZIMUM MAR	к ян з `	17-		THIRD-ORDE 225°02'49";	RI
			=		
•			1		

F D D M E S | 17-13-10

USCOMM-ESSA-ASHEVILLE

1967

D. B. DEPARTMENT OF COMMERCE - COAST AND GROCETIC SURVEY RECOVERY NOTE, TRIANGULATION STATION

Val Vista (Marlcopa County, E. B. Latham, 1935).—About 6 miles, air line, northeast of Mesa, about 1 mile, air line, south of the Salt River, on the mesa

south of the Salt River, about 200 feet south of the mesa rim, and about 200 yards west of the Roosevelt Conservation Canal, about 200 yards north of the

house on the Munger property. Marked by standard bronze disks as described

in notes 1a and 7a. Reference mark No. 1, a standard bronze reference disk, note 11a, is 18.932 meters (62.11 feet) from station in azimuth 3°28'. Refer-

ence mark No. 2, a standard bronze reference disk, note 11a, is 27.004 meters (88.60 feet) from station in azimuth 80°04'. The azimuth mark is a 3-inch

bronze disk with a cross marked in its center, set in the concrete headgate

of an irrigation ditch that runs north and south, about 200 yards from station,

R

39

06.2

NAME OF STATION: VAL VISTA

and in azimuth 225°02'49".

Betantingen st: E.B.L. RECOVERED BY: A. H. S.

Ymam: 1935 Brats: Arizona

YEAR: 1956 COURT: L'aricons

Detailed statement as to the fitness of the original description; including marks found, stampings, changes made, and other pertinent facts:

Station recovered as described. Reference mark 1 found in good condition. Reference mark 2 found in good condition. Azimuth mark recovered as described.

U.S. DEFARTMENT OF COMMERCE COAST AND SCODETIC SURVEY

MAME OF STATIONS

ESTABLISHED BY: YEAR: 1935 - STATE: Arizona E.B. Lathan RECOVERED BY: YEAR: 1963 COUNTY: Haricopa C.A. Annis-

HEIGHT OF TELESCOPE ABOVE STATION MARK 1.5 METERS. HEIGHT OF LIGHT ABOVE STATION MARK DISTANCES AND DIRECTIONS TO AZIMUTH MARK, REFERENCE MARKS AND PROMINENT OBJECTS WHICH CAN BE SEEN FROM THE GROUND AT THE STATION DISTANCE OBJECT REARING DIRECTION PERT METERS BELL BUTTE (AMS) 1962 00, 00100 83,60 27,005 32 R.M. 2 23 33 05.2 Azimuth Mark NW 155 pprox. 0.15 mile R.H. 1 3 62.09 18.925 293 51 25 Nesa, Municipal Water Tank No. 3 approx. 6.0 miles 328 32 49.3 SW approx. 6.0 miles 1341 23 33.9

SW

The station was recovered and all marks were found to be in good condition. The distance to the references marks were checked, a slight difference was found to reference mark 1. No data was available to check the directions.

A complete new description follows.

The station is located about 6 miles northeast of Hesa, about 1.0 mile south of the Salt River and about 200 yards west of the Roosevelt Conservation Canal.

To reach the station from the junction of State Highway 87(Country Club Drive) and Mc Kellips Road about 2.5 miles north of Mesa, go east on Mc Kellips Road for 5.0 miles to Val Vista Drive, turn left, go north on Val Vista Drive for 1.5 miles to forks, take right fork, go east along north side of a white board fence for 0.05 mile to a track

Station, a standard triangulation disk set in the top of a 12 inch square concrete post which projects 6 inches and stamped VAL VISTA 1935. The mark is 96 feet south-southwest of track road intersection, 86 feet south of center of track road and 17.5 feet west of track road.

concrete post which projects 8 inches and stamped VAL VISTA NO 1 1935. The mark is 22 feet west of center of track road.

Reference mark 2, a standard reference disk set in the top of a 12 inch square concrate post which projects 4 inches and stamped VAL VISTA NO 2 1935. The mark is 106

Azimuth mark, a 3 inch bronze disk with cross in center set in a drill hole in the

To reach the azimuth mark from the station, go south on track road for 1.0 mile to "T" road, turn left, go east for 0.15 mile to "T" road and canal, turn left, go south along west side of canal for 0.2 mile to canal gate and mark.

RECOVERY NOTE, TRIANGULATION STATION

approx. 6.0 miles

Mesa, Municipal Water Tank No. 1 Mesa, Municipal Water Tank No. 2

road left, turn left, go north on track road for 0.1 mile to the station on left.

Reference mark 1, a standard reference disk set in the top of a 12 inch square

feet west of center of track road and 42 feet north of track road.

west end of a concrete headwall of a canal gate.

168

JULY 196

ARIZONA

PUBLISHED AND PRINTED BY: U.S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY WASHINGTON D.C.

HORIZONTAL CONTROL DATA
by the
Coast and Geodetic Survey

NORTH AMERICAN 1927 DATUM

QUAD 331113 STATION 1022 ARIZ LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

330151

D. I. SERVICE OF FORWARDS

# U.S. DEPARTMENT OF COMMERCE CONTANT RECOEFFICIENTS DESCRIPTION OF TRIANGUEATION STATION

STATE: Arizona

TRAVERSE

COUNTY: Karicona

NAME OF STATION: STUART
CHIEF OF PARTY: C.A. Annis

YEAR: 1963

DESCRIBED BY: H.D. Ellis

1b	HEIGHT OF TELESCOPE ABOVE STATION MARK 4.4.5 SURFACE-STATION MARK DISTANCES AND D ORDERST	IRECTIONS TO	AZIMUTH MAR		MARKS A	MD PEC	METERS.		
7a	ORIGET	BEARING	DIST	DISTANCE			DIRECTIONS		
			PRET	METERS					
	GRAH		10	0 175	0	00,	00,00		
	Phoenix, KTAR Radio Tower (South of	2) NW		1 40	136	59	28.0		
desc	R.M. No. 2	NNW	40.73	12.411	171	44	31		
desc	Azimuth Fark	SE	approx. 0	45 mile	299	59	49.78		
l I	Tempe, S.R.P. Radio tower	ESE	approx. 2	0 miles	305	42	01.2		
116	R.M. No. 1	3E	48,17	14.684	318	17	56		

The station is located about 6 miles east of the center of Phoenix, about 1/2 mile east of 48th Street and about 1/4 mile south of East Van Buren Street.

To reach the station from the intersection of East Van Buren Street and North 48th Street, go east on East Van Buren Street for 0.5 mile to 52nd Street on left and the Hilltop Motel on right, turn right, go south, passing through motel driveway thence track road for 0.2 mile to top of small knoll and station.

Station, a standard traverse disk set in the top of a round concrete post which projects 2 inches and stamped STUART 1963. The mark is 13 feet west of center of track a road and 7 feet east of a concrete block fence.

Reference mark 1, a standard reference disk set in the top of a round concrete post which projects 3 inches and stamped STUART NO 1 1963. The mark is 40 feet east of a concrete block fence and 17 feet east of center of track road.

Reference mark 2, a standard reference disk set in a drill hole in outcropping bedrock which project 1 inch and stamped STUART NO 2 1963. The mark is 12 feet west of center of track road and 1 foot east of a concrete block fence.

Azimuth mark, a standard azimuth disk set in a drill hole in the south curbing of East Washington Street and stamped STUART 1963. The mark is 51 feet northeast of the northeast corner of the Allied Shoe Company Office building, 35 feet south of center of East Washington Street and 22.5 feet west of a power pole.

To reach the azimuth mark from the station, go south on track road for 0.15 mile to East Washington Street, turn left, go east on East Washington Street for 0.4 mile to the Allied Shoe Company Office building and mark on right.

Refers to notes in manuals of triangulation and state publications of triangulation. Direction-angle measured clockwise, referred to initial at the large manuals are not triposometric leveling in being done.

### ADJUSTED HORIZONTAL CONTROL DATA

HAME OF STATION: STUART

YEAR: 1963

STATEATIZONA

LOCALITY: Arizona Hwy. Survey, Papago Freeway

First -order Traverse

SCURCE:G-13304

FIELD SKETCH: Ariz. 50

GRID	DATA	C	OORDINATES (Feet)		Ja) A		MARK
STATE: ZONE: CODE:	Ariz. C 0202	7	483,986.89 890,684.96	299° - 0	421 01	26" 44	AZIMUTH MARK
STATE: ZOHE: CODE:		x y		60	٠,		

	POSITION	SECONDS IN METERS	ELEVATION
GEODETIC DATA	LATITUDE: 33° 26° 54"5937 NORTE		BENCH METER
	TO STATION	GEODETIC AZIMUTH	DISTANCE (Motore)
AZIMUTH MAF	ur \	SECOND-ORDER 299°40'42"5	

U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SURVEY

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM

QUAD 331113 STATION 1023 ARIZ LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

> 33 15 45

FORM 525

NAME OF STATION:

U.S. DEPARTMENT OF COMMERCE COAST AND SEDDETIC SURVEY

DESCRIPTION OF TRIANGULATION STATION

TRAVERSE STATE: Arizona

COUNTY: Maricona

GRAM

YEAR: 1963

CHIEF OF PARTY: C.A. Annis DESCRIBED BY: H.D. Ellis

•оте,°	HEIGHT OF TELESCOPE ABOVE S	TATION HARK 1.6 HE		EIGHT OF LIGHT				HETERS.
7a	UNDERGROUND-STATION MARK	OBJECTS WH	ICH CAN B	E SEEN FROM T	HÈ GROUND AT	THE ST	ATION	
(a	OBJECT		BEARING	DIST	NCE		SIRECTI	owl
	465201		BENNING	PEET	METERS	<u> </u>	SHEETI	0
	STUART					ъ	od	00.00
15b	Azimuth Kark		11 -	approx. 0	.4 mile	01	25	17.54
11b	R.H. No. 1		ENE"	83.11 -	25.332"	71	19	37 -
11b	3.H. No. 2		W ~	55.68 -	16.973	266	23	37 - 1
	Fhoenix, Froducers Co Water Tank	otton Oil Co.	197 ×.	approx. 0	.7 mile	304	55	50.8 -

The station is located about 7 miles east-southeast of the center of Fhoenix, about 2 1/2 miles northwest of Temps and 1/2 mile east of South 48th Street just south g of the Grand Canal.

To reach the station from the intersection of East Washington Street and 48th Street, go south on 43th Street for 0.4 mile to crossroad just after crossing canal, turn left, go east along the south side of canal for 0.5 mile to the station on right. Station, a standard traverse disk set in the top of a round concrete post which projects 1 inch and stamped GRAW 1963. The mark is 29 feet south of the south edge of canal, 15 feet south of center of road and 1.8 feet north of witness post.

Reference mark 1, a standard disk set in the top of a round concrete post which projects 2 inches and stamped GRAH NO 1 1963. The mark is St. 0 feet east-northeast of witness post, 13 feet south of center of road and 2 feet north of fence.

Reference mark 2, a standard reference disk set in the top of a round concrete post which projects 1 inch and stamped GRAH NO 2 1963. The mark is 55.6 feet west of witness post, 13 feet south of center of road and 1 foot north of fence.

Azimuth mark, a standard azimuth disk set in the top of a round concrete post which projects 1 inch and stamped GRIM 1963. The mark is 58 feet south of center of -East Washington Street, 57 feet east-southeast of power pole number 57, 3.2 feet northwest of witness post and 2.5 feet west of fence.

To reach the azimuth mark from the intersection of East Washington Street and 48th Street, go east on East Washington Street for 0.5 mile to Wall's Livestock Supply and -

Refere to notes in mannals of tringgulation and state publications of tringgulation. 2 Direction-angle measured clockwise, referred to initial states 1To sensest meter only, when no trigonometric leveling in being done.

### ADJUSTED HORIZONTAL CONTROL DATA

HAME OF STATION: GRAM

YEAR: 1963

STATE: Arizona

LOCALITY: Arizona Hwy. Survey, Papago Freeway

First -ORDER Traverse

SCURCE: G-13304

FIELD SKETCHI AP12. 50

GRID DATA	COORDINATES (Feet)	PLANE AZIMUTH #IOR &@I ANGLE	MARK
STATE: APIE. ZONE: C CODE: 0202	* 484,000.71 y 887,953.65	181° 08' 54" - 0 01 44	AZIMUTH MARK
STATE: ZONE: CDDE:	у		

		POSITH			SECONDS IN METERS		ELEVATION
GEODETIC DATA	LATITUDE: 33° LONGITUDE: 111	261 58	27"5687 08.8154	HORTH WEST	2		BENCH METERS MARK PEET
	TO STATIO	н			GEODETIC AZIMI (From south)	нтц	DISTANCE (Netern)
AZIMUTH MARK	١.				SECOND-ORD	ER	
					' ' '		
<u> </u>							
PGRM 881 17-83-967							U1COMADC 16161-P6

USCOMM-NOAA-ASHEVILLE

JULY 1966 U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION HATIONAL OCEAN SURVEY REV: JUNE 1969, MAR 1973

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM

QUAD 331113 STATION 1024 ARIZ 33°00' TO 33°30' LATITUDE LONGITUDE 111"30' TO 112"00' DIAGRAM NI 12-8 MESA

33 15

### DESCRIPTION OF THIS HOUSE STATION

NAME OF STATION:

TRAVERSE STATE Arizona

COUNTY Maricopa

CHIEF OF PARTY C. A. Annie

YEAR: 1063

DESCRIBED BY: D D W

		44116 111111111111111111111111111111111	<u></u>	703	_		It of all o		
F		HEIGHT OF TELESCOPE ABOVE ST	ATION HARK & MET	ters,t H	EIGHT OF LIGH	T ABOVE STATIS	SH MARK L	HETERS	
	1b 7a	SURFACE-STATION MARK, UNDERGROUND-STATION MARK	K, REFERENCE I THE GROUND AT	THE STATIO	ROMMENT	٦			
	1.2	OBJECT		BEARING	DIST	ANCE	-	CTIONI	7
				BEARING	PEST	METERS	DIMEC	.11041	
	11b 16b 11b	GRAM R.M. No. 1 Azimuth Mark R.M. No. 2 Phoenix, Cudahy We	iter Tank	ne WSW NW	33.83 approx. 42.08 approx.	10.310 0.5 mile 12.824 1.5 mile	00 00 30 33 254 23 323 27 334 46	00.00 11.4 12.31 32.3 52.9	

Station is located about 6 miles east-southeast of Phoenix, about 1.5 miles south of East Washington Street, about 1/2 mile east of South 48th Street and at the southeast corner of feeding pens of the Hughes and Ganz Cattle Company. -

To reach from the junction of East Washington Street and South 48th Street in the east section of Phoenix, go south on South 48th Street for 0.35 mile to the Grand Canal, continue south on South 48th Street for 0.7 mile to the Hughes and Ganz Company on left, continue south on South 48th Street for 0.25 mile to the azimuth mark on left, continue south on South 48th Street for 0.05 mile to side road left, turn left and cross cattle guard and go east-northeast following main track road for 0.5 mile to the southeast corner of cattle pens and station as described.

Station mark, a standard traverse disk stamped GANZ 1963, is set in the top of a concrete cylinder which is set flush with the ground. The mark is 39.5 feet northwest of a large tree, 18.3 feet west of the fence corner, 4.3 feet north of fence and 3.9 feet north-northeast of the witness post. -

Reference mark 1, a standard reference disk stamped GANZ NO 1 1963, is set in the top of a concrete cylinder which is set flush with the surface of the ground. The mark is 34.7 feet northeast of the witness post, 32 feet north of the southeast fence corner, 2 feet south of east steel gate post and 1 foot west of fence.

Reference mark 2, a standard reference disk stamped GANZ NO 2 1963, is set in the top of a concrete cylinder which is set flush with the surface of the ground. The mark is 56.8 feet northwest of the fence corner, 45 feet northwest of the witness post and 0.6 feet south of fence. -

Azimuth mark, is a standard azimuth disk stamped GANZ 1963, is set in the top of a concrete cylinder which projects about 4 inches. The mark is 190.4 feet south of a power pole No. 92 with transformers, 33 feet east of center of South 46th Street, 2.5 feet southwest of the witness post and 1.7 feet west of fence. -

RECOVERY NOTE, TRIANGULATION STATION

NAME OF STATION: GANZ

ESTABLISHED BY: C.A.A. YEAR: RECOVERED BY: Arizona Rwy Depresa.

1963 STATE: Arizona 1968 COUNTY: Maricopa

BENCH MARK ALSO

AIRLINE DISTANCE AND DIRECTION FROM NEAREST TOWN: HEIGHT OF TELESCOPE ABOVE STATION WARK

HEIGHT OF LIGHT ABOVE STATION MARK

FEET.

OBJECT		DISTANCE		ANCE			
		BEARING	PEET	METERS	DIRECTION		OH
GANZ 1963 RESET 1966	to RM 1 (Ch	mined)	33.83				
GANZ 1963 RESET 1968							

This traverse station had been partially washed out and the concrete cylinder about one-third exposed. After removing the monument, the underground station mark appeared to be solid and in place. Straddles were set up and the concrete cylinder with surface station disk was reset directly over the underground station mark. The surface mark station disk is stamped " GANZ 1963 RESET 1968 ".

### ADJUSTED HORIZONTAL CONTROL DATA

NAME OF STATION: GANZ YEAR: 1963

STATE: APIZONS

LOCALITY Arizona Hwy. Survey, Papago Freeway

First -ORDER Traverse

SCURCE: G-13304

FIELD SKETCH: Ariz. 50

GRIC	DATA	CO	ORDINATES (Feet)		E AZIA ΔαΙ ΑΝ		МА	nk .
STATE: ZONE: CODE:	Ariz. C 0202	y	484,065.51 883,622.64	73° - 0	31 ' 01	47"	AZIMUTH MARK	
STATE: ZONE: CODE:		y y			- 22			

	POSITION	SECONDS IN METERS	ELEVATION		
DATA	LATITUDE: 33° 25' 44"7158 HORT LONGITUDE: 111 58 08.0250 WEST	н	PENCH METERS		
	TO STATION	GEODETIC AZIMUTH (From south)	DISTANCE (Motors)		
AZIMUTH MAF	ak V	SECOND-ORDER 73°30'03"0			

RECOVERY NOTE, TRIANGULATION STATION

YEAR: 1963 STATE: Arizona YEAR: 1972 COUNTY: Maricopa BENCH MARK ALSO AIRLINE DISTANCE AND DIRECTION FROM HEAREST TOWN: 6 miles east-southeast of Phoenix HEIGHT OF TELESCOPE ABOVE STATION MARK 5

					2	
DISTANCES AND DIRECTIONS TO AZIMUTH MARK, REF FROM THE GRO	ERENCE NA	RKS AND PROMINE STATION	ENT OBJECTS 1	THICH C	N DE S	EEN
OBJECT		DIST	ANCE	1		
	BEARING	PEET	METERS	1	DIMEC	TION
Azimuth mark 1972 1/2 mile Phoenix, Productors Cotton Oil Co- Phoenix, Cudahy Packing Co. Water CAMZ 2 A Point RM 1	Tank 1	Tank 196 963 19.3671 13.4976	2 1963 63.540 44.283	58 59 76 80	00 41 45 24 29	00.0 08.6 54.8 09.3 59.2

The station was in the way of pipe line construction and was moved at this time. The station mark and reference mark 2 and the azimuth mark were recovered and found in good condition. Hefrence mark 1 had been destroyed. The azimuth mark was obstructed by trees. The distance and directive to the tion to reference mark 2 check the 1963 values.

ANGLES UBSERVAD PRUH 1972 AZIHUTH HARA

GANZ 2 **GANG** 1963

HAME OF STATION: GANZ

ESTABLISHED BY: C.A.A.

RECOVERED BY: L.F. Smith

0 00 00.0 23 53.1

USCOMM-NOAA-ASHEVILLE

OCTOBER 1972 U.S. DEPARTMENT OF COMMERCE ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION COAST AND GEODETIC SURVEY

# HORIZONTAL CONTROL DATA

Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM

331113 QUAD AKIZ

1ATITUDE 33 ° 00′ TO 33 ° 30′ LONGITUDE 111 ° 30′ TO 112 ° 00′

C& GS FORM \$25

U. S. DEPARTMENT OF COMMERCE ENVIRONMENTAL ECIZNCE SERVICES ADMINISTRATION COAST AND GEODETIC SURVEY

331113

DIAGRAM NI 12-8 MESA ADJUSTED HORIZONTAL CONTROL DATA

NAME OF STATION: GANZ 2

DESCRIPTION OF TRIANGULATION STATION STATE: Arizona

соинту Maricopa

arizona

HAME OF STATION GANZ 2

TEM 1972

www. Arizona Hwy Survey, Papago Freeway

First - OFFICE

CHIEF OF PARTY L.F. Smith

YEAR: 1972

DESCRIBED BY: L. W. W.

	SURFACE-STATION MARK, UNDERGROUND-STATION MARK	, REFERENCE 'HE GROUND AT			MINENT			
	Delect	OB/ECT			AHCE	DIRECTION		
- I	OBJECT	BEARING	FERT	METERS	,	HEECTI	OHI	
desc	Phoenix, Producter		w Co. Ha	ter <sup>T</sup> ank k 1963	1962-63	0 59 61	00 56 02	00.0 05.0
desc	RM 3 RM 1 A point GANZ 1063		NK SE	28.99 33.83	8.835	105	56	57. 30

The station is located about 6 miles east-southeast of Phoenix, 1 1/2 miles south of East Washington Treet and 1/2 mile east of South 48th Street, on property belonging to the U.S. Government.

The station mark is a standard MGO disk stamped, GANZ 2 1972. It is set in the top of a 10 inch concrete monument which projects 5 inches, 69 feet north of a east-west fenceline, 28 feet west of a north-south fence line and 4 foot west of a witness post and sign.

Meference mark i is a standard disk stamped, GANZ MV 1 1963. It is set in the top of a 12 inch concrete monument which is 5 inches below the ground surface. The mark is 2 feet southwest of a witness sign in

the ground surface. The mark is 2 feet southwest of a witness sign in

the fence line.

Reference mark 3 is a NGS disk stamped, GANZ 2 NO 3 1972. It is set in the top of a 10 inch concrete monument which projects 1 1/2 inches, 95 feet north of a east-west fenceline, 19 feet west of a northsouth fenceline and 30 feet west-southwest of witness post and sign.

Azimuth mark is a NGS disk stamped, GAIZ 2 NO h 1972. It is set in a drill hole in top of an old 1.0 foot concrete foundation. 13 feet east of a pump, 7 feet northeast of a junction pole, 40 paces east of centerline of 48th Street and 27 paces east of the right of way fence

line.
To reach the station from the intersection of South 48th Street and Washington street in eastern hosnix, go south along South 48th Street for 1.25 mile to a gate on the left. Turn left passing through gate, the azimuth mark is about 50 feet northeast on this point? and follow track roads leading east for 1/2 mile to fence corner and the

station.

source G=10749 33 25 45.33584 346.76 GEODE FIG LATITUDE 111 58 08.14834 1137.7 SECRETIC LONGITUDE PERT

			-	
# 108∆ di ANDLE			CODE	STATE B 2046
- 0 01 44	883,685.32	484,055.09	0202	Ariz. C
0 02 4			1000	

TO STATION OF OBJECT	GEODETIC AZIMUTH	PLANE AZIMUTH *	cone
ZIMUTH MARK	92 43 47 3	93 45 31	0202
osition determined by traverse:	from station GANZ		

PRefers to notes in manuals of triangulation and state publications of triangulation. Overtron-angle measured clockwise, selected to initial station To nestest meter only, when no trigonometric leveling in being done.

FEB 5

JULY 1966 U.S. DEPARTMENT OF COMMERCE ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION COAST AND GEODETIC SURVEY REVISED MAR 1972

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM

ARIZONA 168B

QUAD 331113 STATION 1025 ARIZ

LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

330 15

### ADJUSTED HORIZONTAL CONTROL DATA

NAME OF STATION: GOMEZ

YEAR: 1963

STATE APIZONS

LOCALITY Arizona Hwy. Survey, Papago Freeway

First -ORDER Traverse

scurce: 0-13304

FIELD SKETCH: APIZ. 50

GRID S	DATA	co	ORDINATES (Feet)		IE AZIR ∆al AN		ĺ		14/	RK			
ZONE:	Ariz. C 0202	x y	483,696.90 881,025.85	- 0	33' 01	50"\ 46	AZIMUTH	MARK		TT	R 6	AMS	,
STATE: ZONE: CODE:		X Y	,		1881								

	POSITION		SECONDS IN METERS	ELEVATION
GEODETIC DATA	LATITUDE: 33° 25' 19"0198 LONGITUDE: 111 58 12.3588	HORTH WEST		346.81 метен 1137.8 гест
	TO STATION		GEODETIC AZIM	
AZINUTH MAR	K = TT R 6 AMS		SECOND-ORI 88°32°0	DER

1972

CHIEF OF PARTY YEAR: 1963 DESCRIBED BY R.P.K. C.A. Annis OTE. MEIGHT OF TELESCOPE ABOVE STATION MARK  $1.6\,$  meters.  $1\,$  height of light above station mark  $1\,$  meters. SURFACE-STATION MARK, UNDERGROUND-STATION MARK DISTANCES AND DIRECTIONS TO AZIMUTH MARK, REFERENCE MARKS AND PROMINENT OBJECTS WHICH CAN BE SEEN FROM THE GROUND AT THE STATION 1b 7a DISTANCE PEET METERS GANZ 00 00 00.00 69 54 38.3 Tempe, S.R.P. Radio Tower ENE 35.09 2 miles 10.693 11b. R.M. No. 1  $\mathbf{E}^{\circ}$ approx. 10 miles 213 22 12.4 Phoenix, KTAR TV Hast (W of h) SW TT R 6 (A.M.S.) (Azimuth mark) approx. 0.45 260 29 06.24 42.09 12.829 314 22 52.1 desc.R.M. No. 2

DESCRIPTION OF THINKING TOUR STATION

COUNTY Haricopa

Station is located about 6 1/2 miles southeast of the center of Phoenix, about 2 miles west-southwest of Tempe and on the north side of

East Transmission Road. To reach from East Washington Street and South 48th Street in the east section of Phoenix, go south on South 10th Street for 1.7 miles to East Transmission Road, (TT R 6 Azimuth Mark is located in the southwest corner of this intersection), turn left and go east on East Transmission . Road for 0.15 mile to the station on left as described.

Station mark, a standard traverse disk stamped GOMEZ 1963, is set in the top of a concrete cylinder which is set flush with the surface of the ground. The mark is 51 feet south-southeast of the southeast corner of abandon house, 24 feet north of the center of East Transmission Road, 9 feet south-southeast of Farmers Insurance Sign, 3 feet northeast of fence corner and 2.7 feet north-northeast of the witness post.

Reference mark 1, a standard reference disk stamped GONEZ NO 1 1963, is set in the top of a concrete cylinder which is set flush with the surface of the ground. The mark is 37 feet east of the fence corner, 36 feet east of witness post, 22 feet north of the center of East Transmission Road, 11.2 feet west of telephone cable pole No. 30 and 6 inches north of fence.

Reference mark 2, a standard reference disk stamped GOHEZ NO 2 1963, is set in a drill hole in the southeast corner of concrete patio. The mark is 43.8 feet northwest of witness post, 27.1 feet east-southeast of the southwest corner of house and 20.4 feet southwest of the southeast corner of house.

TT R 6 (Azimuth Hark), is a Corps of Engineers Army Map Service Survey Mark stamped TT R 6 1963, is set in the top of a concrete cylinder which projects about 1 foot. The mark is located in the southwest corner of intersection of East Transmission Road and South 48th Street, 29 feet east-northeast of fire hydrant and 12.5 feet northwest of center of irrigation gate.

RECOVERY NOTE, TRIANGULATION STATION

NAME OF STATION: GONEZ

NAME OF STATION

GOMEZ

ESTABLISHED BY C.A.A.

HEIGHT OF TELESCOPE ABOVE STATION WARK

YEAR: 1963 STATE: Arizona RECOVERED BY: Ariz, Hwy. DeptysAR: 1967 COUNTY Maricopa BENCH WARK ALSO TH

AIRLINE DISTANCE AND DIRECTION FROM HEAREST TOWN

HEIGHT OF LIGHT ABOVE STATION WARK

FEET.

		DISTANCE			Daniel Control	
CBJECT	DAINAS	PEGT	нетеяз		DIREC	TION
HUMH 1963				0	00	00.
GOMEZ 2 RESET 1967	l n l	117.027	(35.670)	186	09	01.

The station was found in good condition, description was adequate. Transmission Road has been changed to University Drive.

University Drive will soon be widened and the station would have been destroyed, so a new station GOMEZ 2 and reference marks 3 and 4 were established.

The original station mark, reference mark 1 and reference mark 2 were destroyed.

USCOMM-NOAA-ASHEVILLE

MARCH 1972

U.S. DEPARTMENT OF COMMERCE ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION COAST AND GEODETIC SURVEY

33015 111045

# HORIZONTAL CONTROL DATA

Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM

QUAD 331113 ARIZ

STATION 1025 A

33°00' 10 33°30' TATITUDE LONGITUDE 111º 30' TO 112º00' DIAGRAM NI 12-8 MESA

### DESCRIPTION OF TRIANGULATION STATION

HAME OF STATION: GOMEZ 2

STATE Arizona

county: Maricopa

CHIEF OF PARTY: Ariz. Hwy. Dept. YEAR: 1967

DESCRIBED BY:

HOTE, 4	HEIGHT OF TELESCOPE ABOVE S			EIGHT OF LIGHT				HETERS.
1b 7 a	SURFACE-STATION MARK, UNDERGROUND-STATION MARK	E SEEN FROM T	, REFERENCE I HE GROUND AT	THE STA	ID PRO	MHEHT		
1	OMECT	-	BEARING DIS		INCE	DIRECTIONS		Om I
	ametr		BEARING	PRET	METERS			
				0.0				-
	H'DM 1963					0	00	00.0
			8	117.027	(25 670)	Ĭ,	53	52.9
16	GCMEZ 1963		พี	68.098	336.348	102	16	43.0
115	GOMEZ 2 RM 3				(20.733)	103	11	00.8
11b	GOMEZ 2 RM 4		N	68.023	(20./33)	Tal	7.7	00.0
			1		*	*		

Station is located about 6.5 miles southeast of the center of Phoenix, about 2 miles west-southwest of Tempe and on the north side

of University Drive.

To reach from East Washington Street and South 48th Street in the east section of Phoenix, go south on South 48th Street for 1.7 miles to University Drive, turn left and go east on University Drive for 0.45 mile to the station on left as described.

Station mark is a standard disk stamped "GOMEZ 2 BM RESET 1967" set in an B'-inch circular concrete monument flush with the ground. The mark is 11:1.327 feet north of the center line of University Drive, 55.80 feet north-northeast of the northeast corner of an abandoned adobe house, 3.5 feet north of a witness post and 0.40 feet east of a north-south fence.

Reference mark 3 , a standard reference mark disk stamped " GOMEZ 2 NO 3 RESET 1967" set in an 83-inch circular concrete monument projecting 0.3 feet. The mark is 4.0 feet south-southwest of a 14-inch mesquite tree and 0,40 feet east of a north-south fence.

Reference mark 4, a standard reference mark disk stamped " GOMEZ 2 NO 4 RESET 1967 " set in an 8%-inch circular concrete monument projecting 0.10 feet. The mark is 0.40 feet east of a north-south fence. No azimuth mark was set.

### ADJUSTED HORIZONTAL CONTROL DATA

OBS BY ARIZ HWY DEPT

HAME OF STATION: GOMEZ 2

STATE ARIZONA

GEODETIC LONGITUDE:

TEAR 1967

FIRST -- ORDER

LOCALITY ARIZONA HWY SURVEY PAPAGA FREEWAY

G-10749

(NO OBSERVATIONAL CHECK ON THIS POSITION) 33 25 20.17705 111 58 12.40150

METERS 346.99 1138.4 ELEVATION: FEST

STATE COORDINATES (Fm)								
CODE	×	٧	Ø (OR Δ Ø) ANGLE					
0202	483,693.34	881,142.81	- 0 01 46					
		CODE X	CODE X Y					

TO STATION ON CHIECT	GEODETIC AZIMUTH (Frim Halb)	PLANE ASIMUTH (From mark)	CODE
нимм	352 19 44.4	352 21 30	0505

POSITION DETERMINED BY TRAVERSE FROM STATION GOMEZ

\*Refers to notes in manuals of triangulation and state publications of triangulation. 1Direction-ungle measured clockwise, referred to initial station. 1To nearest never only, when no trigonometric leveling in being done.

U.S. DEPARTMENT OF COMMERCE ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION COAST AND GEODETIC SURVEY Revised JULY 1975

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM

- EPS

QUAD 331113 STATION 1026 LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

> 33 615 111 45

PORM \$25

U.S. DEPARTMENT OF COMMERCE

DESCRIPTION OF STATION

THAVERSE STATE: Arizona

NAME OF STATION HUMM

COUNTY: Maricopa

CHIEF OF PARTY: C.A. Annis

YEAR: 1963

DESCRIBED BY R.L. Wright

HOTE,	HEIGHT OF TELESCOPE ABOVE ST	TATION MARK 1 NE	TERS,I HI	CIGHT OF LIGHT	ABOVE STATE	DH MARI	1	METERS.
lb 7a	SUMFACE-STATION MARK, UNDERGROUND-STATION MARK	DISTANCES AND DIRECTIONS TO AZIMUTH MARK, REFERENCE MARKS AND PROMINENT OBJECTS WHICH CAN BE SEEN FROM THE GROUND AT THE STATION						
	DBJECT		BEARING	DISTANCE		DIRECTIONS		
				FEET	METERS	CAMP LIGHT		
	GOMEZ	(V.G.)		,		ů	00	00.00
116	Reference Mark 1		H	33.09	10.087	174	20	20.2 1
16b 11b	BELLE BUTTE (AMS) Azimuth Mark Reference Mark 2		3 /	Approx.	0.25 Mile 12.269	188	59 42	08.96

The station is located along the west side of 52 nd Street, 1/2 mile north of Bell Butte, 7 miles southeast of the central section of Phoenix and on Highway property.

To reach the station from the intersection of East Van Buren and 48 th Street, go south on 46 th Street for 2.0 miles to the intersection of Transmission Road, turn left and go east on Transmission Road for 0.5 mile to a graveled road right, 52 nd Street, turn right and go south on 52 nd Street for 0.5 mile to a driveway right and the station as describ-

The station mark is a standard traverse disk stamped HUMM 1963, set in top of a 12-inch concrete cylinder which projects 3 inches above the ground surface. It is 2.4 feet east of a standard metal witness post and marker, 2.4 feet east of a north and south fence line, 19.0 feet west of the approximate center of 52 nd Street, 25.5 feet north of a powerline pole number 36 and 53.0 feet south of the approximate center of a drive-

Reference mark 1 is a standard disk stamped HUMM NO 1 1963, set in top of a 12-inch concrete cylinder which projects 3 inches above the ground surface. It is 3.3 feet east of the northeast fence corner, 16.0 feet west of the approximate center of 52 nd Street, 20.0 feet south of the approximate center of the driveway and 33.3 feet north of the witness

Reference mark 2 is a standard disk stamped HUMM NO 2 1963, set in top of a 12-inch concrete cylinder which projects 2 inches above the ground surface. It is 1.8 feet east of the north and south fence line, 14.6 feet south of the powerline pole number 36, 19.0 feet west of the approximate center of 52 nd Street and 40.1 feet south of the witness

The azimuth mark is a standard disk stamped HUMM 1963, set in top of a 12-inch concrete cylinder which is flush with the ground surface. It is 3.0 feet west of west edge of a cultivated field, 2.6 feet north of a witness post, 4.8 feet north of a powerline pole number 35-36 and 24.5 feet east of the approximate center of 52 nd Street.

To reach the azimuth from the station, go south on 52 nd Street for 0.25 mile to the azimuth mark on the left as described above.

\*Refers to notes in manuals of tringulation and state publications of tringulation. Direction-angle menuated clockwise, referred to initial utation. To nestest meter only, when no trigonometric leveling in being dane.

MAY 2 6 1976

ADJUSTED HORIZONTAL CONTROL DATA

NAME OF STATION: HUMM

YEAR: 1963

STATE: Arizona

LOCALITY: Arizona Hwy. Survey, Papago Freeway

Rivet -order Traverse

SCURCE: 0-13304

FIELD SKETCH: Ariz. 50

GRID DATA	COGRDINATES (Feet)	PLANE AZIMUTH	MARK	
STATE: APIZ. ZONE: C CODE: 0202	* 484,071.62 y 878,323.33	358° 05' 31" - 0 01 44	AZIMUTH MARK	
STATE: ZONE: CODE:	y y			

	POSITION	SECONDS IN METERS	ELEVATION		
DATA	LATITUDE: 33° 24' 52"2815 NORTH LONGITUDE: 111 58 07.9215 WEST			347.64 METERS 1140.5 PEET	
	GEODETIC AZIMUTH		H DISTANCE (Meters)		
AZIMUTH MAI	358°03'46"6				
AZIMUTH MAI	OK V	358°03'46"	R \		

RECOVERY NOTE, TRIANGULATION STATION

NAME OF STATION HUMM

ESTABLISHED BY: C.A.A.

YEAR: 1963 STATE: AFIZONA RECOVERED BY: Charles Novak YEAR: 1974 COUNTY Maricopa BENCH MARK ALSO

HEIGHT OF TELESCOPE ABOVE STATION MARK 5 FEET.

AIRLINE DISTANCE AND DIRECTION FROM NEAREST TOWN: 7 miles southeast of Phoenix HEIGHT OF LIGHT ABOVE STATION MARK 5 FEET.

DISTANCES AND DIRECTIONS TO AZIMUTH MARK, REFERENCE MARKS AND PROMINENT OBJECTS WHICH CAN BE SEEN FROM THE GROUND AT THE STATION DISTANCE DIRECTION PEET METERS

BEARING TEMPE BUTTE 1963 0 00 00.0 HUMM 2 102 04 28.7 Azimuth mark (1963) 1/4 mile S 113 49 12.4-RM 2 40.25 12.269 116 33.08 10.083 296 11 S 33 RH 1 46

The station mark, reference marks 1 and 2 and the azimuth mark were recovered as described and found in good condition. The station was moved at this time due to construction in the area.

OBSERVATIONS FROM HUMM AZIMUTH MARK 1963

**HUMM 1963** HUMM 2

0 00 00.0 157 48 24.8 JULY 1975
U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM ARIZONA 168B

QUAD 331113 STA

STATION 1026

LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00'

DIAGRAM NI 12-8 MESA

C& GS FORM \$25

U. S. DEPARTMENT OF COMMERCE ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION COAST AND GEODETIC SURVEY DESCRIPTION OF TRIANGULATION STATION

HAME OF STATION: HUMM 2

STATE: Arizona

COUNTY: Maricopa

CHIEF OF PARTY: Charles Novak

YEAR: 1974

DESCRIBED BY: L.W.W.

deas.	SURFACE-STATION MARK, DISTANCES AND DIRECTIONS TO AZIMUTH MARK, REFERENCE MARKS AND PROMHENT UNDERGROUND-STATION MARK OBJECTS WHICH CAN BE SEEN FROM THE GROUND AT THE STATION							
	COLECT	7	DEARING	DISTA	HCE		HRECTI	Owl .
	VASECT		DE VIII DE	PEET	METERS		1112511	UNI
	TEMPE BUTTE 1963 RM 4 RM 3 Azimuth mark 0.3 Phoenix, Producers HUMM 1963 Scottsdale, Motoro	Cotton Oil C	- 1	7.93 20.155 er Tank	2.416 6.143 1963	0 12 84 284 293	00 34 20 56 31 23	00.0 41 50 17.4 26.5

The station is located about 7 miles southeast of Fhoenix and 1 1/2 miles southwest of Tempe. It is on top of a prominent butte which is locally known as Bell Butte.

The station mark is a standard disk stamped, HUMM 2 1974. It is set in a drill hole on the high point at the south end of the butte.

Reference mark 3 is a standard disk stamped, FUNM 2 NO 3 1974. It is set in a drill hole on the south slope of the butte which is about 2 1/2 feet lower than the station.

Heference mark 4 is an Arizona Department of Highways disk stamped, JACK P&M 1967. It is set in top of a rock outcrop at the southeast high-point of the butte.

The azimuth mark is a standard disk stamped, HUND 1963. It is set in top of a 12 inch concrete monument which is flush with the ground surface. It is 2.6 feet north of a witness post, 3 feet west of the west edge of a cultivated field, 4.8 feet north of power pole no. 35-36 and 24 1/2 feet east of the approximate center of 52nd Street.

To reach the station from East Van Buren and 48th Street in the

To reach the station from East Van Buren and 48th Street in the eastern part of Phoenix, go south for 2 miles along 48th Street to University Drive, continue south for 0.8 mile to Broadway Turn left and go east along ircadway for 0.7 mile to a gate on the right. Fass through the gate and follow graded road for about 0.05 mile to a locked gate. (key obtainable from Salt River Project) Continue to top of butte and station. A 5 minute pack.

### RECOVERY NOTE, TRIANGULATION STATION

MAME OF STATION: HUMH 2

ESTABLISHED BY: C N

RECOVERED BY: TOM TAYLOR YEAR: 1974 STATE: ARIZONA

BENCH MARK ALSO

RECOVERED BY: TOM TAYLOR YEAR: 1975 COUNTY: MARICOPA

ARICINE DISTANCE AND DIRECTION FROM NEAREST TOWN: 4 1/2 MILES SW OF TEMPE

MEIGHT OF YELESCOPE ABOVE STATION MARK

5 FEET: MEIGHT OF LIGHT ABOVE STATION MARK

5 FEET:

		DH	TARCE			
OBJECT	BEARING	FEET	METERS		DIRECT	104
PAPAGO 1962 RM 4 RM 3	E	7.94 20.17	2,419	0 53 125	00 53 39	00-0 08 27

The Station mark RM 3 and AHD JACK were recovered and found in the condition. The Azimuth mark was not searched for. The route to the station remains unchanged.



MAY 26 1976

ADJUSTED HORIZONTAL CONTROL DATA

13 15

MANE OF STATION HURSE 2

Arizona

1974

First

LOCALITY

SOURCE G-10749

HELD BRETCH

	GEODETIC LATITUDE	33 24	24.23905	ELEVATION	414.1	METERS
Į	BEODETIC LONGITUDE	111 57	59.78190		1359	FEET

STATE COORDINATES (Feet)					
STATE & ZONE	CODE	=   •	7 61	# TOR A #1 ANGLE	
Ariz. C	0202	484,760.18	875,488.87	- 0 01 39	

FLANT AZMUTH HAS BEEN COMPUTED BY THE # IOR A #F FORMULA REGLECTING THE SECOND TERM

TO STATION OR OBJECT	GEODETIC AZIMUTH (From could)	PLANE AZIMUTH *  (From soul)2	CODE
AZIMUTH MARK 1963	155"52"14.1	155° 53′ 53″	0202

ADJUSTED HORIZONTAL CONTROL DATA

HUNM 1963 AZ MK

STATE ATIZONA

YEAR 1974

Second

33

LOCALITY

SOURCE G-10749

-

0500ETIC LATITUDE: 33 24 38.43368 0500ETIC LONGITUDE: 111 58 07.36301	ELEVATION	348.16 1142.2	HETERS "FEET
---	-----------	------------------	-----------------

		STATE COORDINATES !?	leef3	91
STATE & ZONE	CODE	X		FIOR & MI ANGLE
Ariz. C	0202	484,118.26	876,923.77	- 0 01 43

TO STATION OR DEJECT	GEODETIC AZIMUTH (Eng.Helb)	PLANE AZIMUTH (From tonth)	CODE
нимм 2	335 52 09.9	335 53 53 *	0202
V 12-11			
USCOMM—ESSA—ASHEVILLE	'	•	•

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM ARIZONA

168B

QUAD 331113 STATION 1027 ARIZ LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

33015

ADJUSTED HORIZONTAL CONTROL DATA

NAME OF STATION: TEMPE BUTTE

YEAR: 1963

STATE: Arizona

LOCALITY Vicinity of Phoenix

First -cacse Triangulation source G-13304

FIELD SKETCH: Ariz. 51

GRID DATA	COORDINATES (Feet)	PLANE AZIMUTH #OR Ag) ANGLE	MARK
ZONE: C CODE: 0202	* 494,381.82 7 883,291.57	96° 27' 51" - 0 00 36	AZIMUTH MARK = BENCH MARK AND
STATE: ZONE: CODE:	y y		

GEODETIC	POSITION	SECONDS IN METERS	ELEVATION
DATA	LATITUDE: 33° 25' 41"4746 HORTH LONGITUDE: 111 56 06.2931 WEST		456.1 METERS 1496 FEET
	TO STATION	GEODETIC AZIMUTH	DISTANCE (Motors)
ZIMUTH MARK	C = BENCH MARK AHD	THIRD-ORDER 96*27'15".4	
			72
			10.2
		11110	

USCOMM-ESSA-ASHEVILLE

USCOMADE ISSELFE

U.S. DEPARTMENT OF COMMERCE COAST AND SECDETIC SURVEY DESCRIPTION OF TRIANGULATION STATION

HAME OF STATION: TEMPE BUTTE

STATE: Arizona

COUNTY: Maricopa

CHIEF OF PARTY: C.A. Annis

Annis YEAR: 1963

DESCRIBED BY: R. P.K.

2	SURFACE-STATION MARK, UPSTANCES AND DIRECTIONS TO AZIMUTH MARK, REFERENCE MARKS AND PROUNDERGROUND-STATION MARK, DESCRIPTION MARK, DESCRIP					LARKS AND PROMINENT THE STATION
	OBJECT			SEARING DISTANCE		DIRECTIONS
desc.	BELL BUTTE AMS R.M. No. 3		WHW =	10.3	3.14	00 00 00.0"
332	Azimuth Mark (A.H.) Scottsdåle, Motoro	D. Mark) La Water Tank	NE :	approx.	0.3 mile 3 miles	
desc.	R.M. No. 1 VORTAC, Phoenix Rac	dio PHX	B .	16.56 ·	5.049 5 miles	180 kh 13 21k 11 07.7
12a	R.M. No. 2		3	22.88	6.975	

Station is located about 1/2 mile northeast of the business district of Tempe and on the highest point of Tempe Butte.

To reach from the junction of Mill Avenue and 5th Street in Tempe, go north on Mill Avenue for 0.2 mile to West 2nd Street and the azimuth mark on left as described, continue north on Mill Avenue for 0.15 mile to side road right just north of the Hayden Flour Elevator, turn right and go east about 100 yards thence right, south, keeping to the east side of elevator for 0.1 mile, then go left on track road that goes easterly up butte for 0.25 mile to top and end of truck travel, from here pack northerly up steep slope for 100 yards to top of butte and station.

Station mark is a standard triangulation disk stamped TEMPE BUTTE 1963, is comented in a drill hole in outcropping bedrock about 18 inches below the top of rock that surrounds the disk. The mark is 7.5 feet southwest of the northwest corner of concrete roof of building, 6.4 feet east-southeast of the southwest corner of concrete foundation for Salt River Project Radio Tower and 4.7 feet south of the southeast corner of concrete foundation for radio tower.

Reference mark 1, a standard reference disk stamped TEMPE BUTTE NO 1 1963, is comented in a drill hole in the northeast corner of concrete roof of building and is about the same elevation as the station mark.

Reference mark 2, a standard reference disk stamped TEMPE BUTTE NO 2 1963, is comented in a drill hole in outcropping bedrock that is south of station mark and is about 3 feet lower in elevation than the station. The mark is 13.3 feet southeast of the southwest corner of building and 8.1 feet southeast of the southwest fence corner.

Reference mark 3, is a brass disk set in a drill hole in outcropping bedrock. There is no stamping on the disk but a cross center. The mark is about 3 feet lower in elevation than the station mark.

Azimuth mark, a Arizona Highway Department Elevation Station disk stamped 1162+16 0+4825 1961, is comented in a drill hole in the north west street curb at the intersection of Mill Avenue and West 2nd Street. The mark is set in bus stop area and is painted over with red paint.

Refers to notes in mounts of trinagulation and state publications of triangulation. Direction-ongle measured clockwise, referred to initial trailies. The nearest meter only, when no trigonometric leveling is being done.

FILE GOPY

1967

> 330 151 1110 45'

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM

QUAD 331113 STATION 1028,1029 ARIZ LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

ADJUSTED HORIZONTAL CONTROL DATA

B

HAME OF STATION: TEMPE SALIT RIVER PROJECT RADIO TOWER

YEAR: 1963

STATE: Arizona x

LOCALITY: Vicinity of Phoenix

Third -oncen Triangulation \ sounce: 6-13304 >

FIELD SKETCH: Ariz. 50, 51

GRID DATA		COORDINATES (Feet)	PLANE AZIMUTH PLOR &c) ANGLE	MARK
STATE: ZONE: CODE:	Ariz. C 0202	* 494,376.28 7 883,298.00	- 0 00 371	
STATE: ZONE: CODE:		z y		

.0	POSITION	SECONDS IN METERS	ELEVATION		
DATA	LATITUDE: 33° 25' 41"538 NORTH LONGITUDE: 111 56 06.358 WEST		METER FEET		
	TO STATION	GEODETIC AZIMUTH (From ecosis)	(Notare)		
SELL BUTTE	STATION COMPUTED FROM: ANS, HUMM, GOMEZ, GRAN, STUART, T, RURAL				

U. B. DEPARTMENT OF COMMERCE - COAST AND GEODETIC SURVEY

DESCRIPTION OF TRIANGULATION INTERSECTION STATION

NAME OF STATION: Temps, Salt River Project Radio Tower

County, Maricopa CHEST OF PARTY: Carl A. Annis Year: 1963 STATE: Arizona

Description, including sketch of object: The Salt River Project, Tempe Base Station, Radio Tower is situated on the highest point of Tempe Butte which is Description, including sketch of object: located in the north section of the city of Tempe. The top and center of the pole, painted alternately red and white, which projects from a 30 feet steel tower, was the point observed. The over-all height of the tower is 50 feet. The elevation of the butte is 1496 feet.



Described by Rend and

ADJUSTED HORIZONTAL CONTROL DATA

YEAR: 1935

HAME OF STATION: TEMPE BUTTE AIRWAY BEACON

STATE: APIZONA

LOCALITY: Yuma to Stewart Dam

Third -ORDER Triangulation source: G-3022

FIELD SKETCH: Ariz. 8

GRID DATA	COORDINATES (Feet)	PLANE AZIMUTH MOR &@)HTLE	MARK
STATE: AP1Z ZONE: C CODE: 0202	# 494,375.82 # 883,297.37		
STATE: ZONE: CODE:	x 7		

		POSITION SECONDS IN METERS ELEVAT			
DATA	LATITUDE: LONGITUDE:	33°25'41."532 111 56 06.364	NORTH WEST		MÉTER PEÉT
	то	STATION		GEODETIC AZIMUTH (From exect)	DISTANCE (Meters)

Tempe Butte, airway beacon (Maricona County, E. B. Latham, 1935) .-

INTERSECTION

DEPARTMENT OF COMMERCE

RECOVERY NOTE, TRIANGULATION STATION

Name or Station: Tempe Butte, Airway Beacon,

ESTABLISHED BY E. 3.L.

Year: 1935 State: Arizona

YEAR: 1983 Comm: haricoga No previous description. RECOVERED BY! L. .. Q.

Detailed statement as to the fitness of the original description, including marks found, stampings, changes made, and other pertinent factor

The station has been destroyed. On Tempe Butte there now stands an antenna atop steel tower.

DEPARTMENT OF COMMERCE
U. S. COMPT AND COMMERCE
FORDS 806
(Rev. Pol. 1941)

RECOVERY NOTE, TRIANGULATION STATION

R

NAME OF STATION: THEPE BUTTE, ARESTAT BEACON

Betablished by: EEL RECOVERED BY:" WIJ YEAR: 1935 STATE: Arisons

YHAR: 1957 COUNTY: Maricopa

Detailed statement as to the fitness of the original description; including marks found, stampings, changes made, and other pertinent facts:

The rotating light is gone but the tower still stends and there is a short radio tower projecting out the top where the light used to be. The center of the old tower was observed on.

1967 JAN

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM

QUAD 331113 STATION 1030 LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

> 330 /51 1110 45'

ADJUSTED HORIZONTAL CONTROL DATA

HAME OF STATION: RURAL

YEAR: 1963

STATE: Arizona

LOCALITY Vicinity of Phoenix

First -once Triangulation \*\*\* G-13304

FIELD SKETCH: APIZ. 51

GRID DATA	GRID DATA COORDINATES (Foot)		MARK
ETATE: APIE. ZONE: C CODE: 0202	* 497,312.82\ * 870,534.04\	- 0 00 17×	AZÍMUTH MARK = HENCH MARK AHD
STATE: ZONE: CODE:	y a		

	POSITION	SECONDS IN METERS	ELEVATION
DATA	LATITUDE: 33° 23° 35"2481 HORTH LONGITUDE: 111 55 31.6953 WEST		358.7 METER 1177 FEET
	TO STATION	GEODETIC AZIMUT	H DISTANCE (Moleco)
AZIMUTH MAR	K = HENCH MARK AHD	THIRD-ORDE 1°01'25"	R 2
		1(3)	
		=	
	*		

## U.S. DEPARTMENT OF COMMERCE DESCRIPTION OF TRIANGULATION STATION

NAME OF STATION: RURAL

STATE: Arizona

COUNTY: Maricons

CHIEF OF PARTY: C. A. Annis

YEAR: 1963

DESCRIBED BY: R. P. K. 4767

78 SURFACE-STATION	MARK, ATION MARK	DISTANCES AND DI OBJECTS	RECTIONS TO WHICH CAN B	E SEEM FROM	THE GROUND AT	MARKS A	ND PROMINENT ATION
	OBJECT		BEARING		ANCE		RECTIONS
			-	PEET	METERS	do	00 '00 0
	MPE BUTT	2	- n	14 011	30 777		11 13
llb   R.M. No. ] desc Azimuth Ko			B.	41.06	12.515 1.0 mile	193	EA 73 8'
lesc TT U8 (AMS		dist.)		approx.	1.0 mile	206	50 03.0
lesc R.M. No. 2		, uisc./	WSW	89.16	310270		22 56.0

Station is located in the northeast corner of intersection at Southern Avenue and Rural Road which is 1.5 miles south of center of

To reach from Mill Avenue and 5th Street in Tempe, go south on Mill Avenue for 2.3 mile to Southern Avenue, turn left and go east on Southern Avenue for 0.8 mile to Rural Road and station in the northeast corner of intersection as described.

Station mark, a standard triangulation disk stamped RURAL 1963, is set in the top of a concrete cylinder which is set flush with the surface of the ground. The mark is 79 feet north of the center of Southern Avenue, 42 feet east of the center of Rural Road, 13 feet north of fence and 4 feet south of the witness post.

Reference mark 1, is a standard reference disk stamped RURAL NO 1 1963, is set in the top of a concrete cylinder which is set flush with the surface of the ground. The mark is 82 feet east of center of Rural Road, 68 feet north of the center of Southern Avenue, 42 feet southeast of the witness post and I foot north of fence.

Reference mark 2, a standard reference disk stamped RURAL NO 2 1963, is set in a drill hole in the northeast corner of irrigation gate control which projects about 1 foot above the ground. The mark is 55 feet north of the center of Southern Avenue and 43 feet west of the center of Rural Road.

Azimuth mark, is a Arizona Highway Department Elevation Station disk with no stamping. The disk is comented in a drill hole in an irrigation headwall. The mark is 32 feet east of center of Canal Drive and 24 feet north of center of East Baseline Road.

A traverse connection was made from RURAL to TT U8 (AMS) and the distance is 104.72 feet or 31.918 meters.

TT U8 (AMS), is a Corps of Engineers Army Map Service disk stamped TT U8 1960, is set in the top of a concrete cylinder which is set below the surface of the ground about 6 inches. The mark is 23 feet south of the center of Southern Avenue, 19 feet east of the center of Rural Road and 2.2 feet northwest of a telephone pole.

"Refers to potes in manuals of triangulation and state publications of triangulation. I Direction-angle measured clockwise, referred to initial state I To actuest meter only, when no trigonometric leveling is being done.

FORM 241 17-12-16

USCOMM-ESSA-ASHEVILLE

ULCOMAGE TOTAL

168

ARIZONA

JULY 1966 THILL OF THE PUBLISHED AND PRINTED BY:
U.S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY WASHINGTON D.C.

RURAL (Continued) 330/5'

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM QUAD 331113 STATION 1030 ARIZ LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

U.S. DEPARTMENT OF COMMERCE - COAST AND GEODETIC SURVEY

DESCRIPTION OF TRAVERSE

NAME OF STATION: TT US (AMS)

CHEF OF PARTY: C. A. Annis YEAR: 1963 STATE: Arizona

County: Haricopa

Description, including sketch of object:

Station is located in the southeast corner of intersection at Southern Avenue and Rural Road which is 1.5 miles south of the center of Tempe.

Station is a Corps of Engineers Army Map Service disk stamped TT U8 1960, is set in the top of a concrete cylindor which is set below the surface of the ground about 6 inches. The mark is 23 feet south of the center of Southern Avenue, 19 feet east of the center of Rural Road and 2.2 feet northwest of a telephone pole.

A traverse connection was made from triangulation station RURAL to TT U8 (AHS) and the distance is 104.72 ft. or 31.918 motors.

Described by R.P. Konrady JE

## ADJUSTED HORIZONTAL CONTROL DATA

NAME OF STATION: TT US AMS

YEAR: 1963

STATE: Arizona

LOCALITY: Vicinity of Phoenix

First-GRUER Traverse source: G-13304 (No check on this position)

FIELD SKETCH: APIZ. 51

GRID DATA	COORDINATES (Feet)	PLANE AZIMUTH	МАЯК	
STATE: APIZ. ZONE: C CODE: 0202	97,287,54 9870,432,43	- 0 00 18		
STATE: ZONE: CODE:	x y			

GEODETIC		POSITION		SECONDS IN METERS	ELEVATION
DATA	LATITUDE: LONGITUDE:	33° 23' 111 55	34"2427 thorth 31.9934 WEST		METER FRET
	TO s	TATION	i i ette	GEODETIC AZIMU	TH DISTANCE (Metere)
Positi station RUI	ion determi RAL	ned by tra	Averse from		
				-	
			un		
					E

FILE COPY

JAN 1967

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey **NORTH AMERICAN 1927 DATUM** 

QUAD 331113 STATION 1031 LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

> 330/5 111045

> > 51

ADJUSTED HORIZONTAL CONTROL DATA

YEAR: 1962, 1963

HELL BUTTE AMS HAME OF STATION:

STATE: Arlzona

CODE

LOCALITY Arizona Hwy. Survey, Papago Freeway (Ehrenberg to Phoenix to Casa Grande First -case Triangulation Scurce G-12917 FELD SKETCH: Ariz. 49-FIELD SKETCH: Ariz. 49-II, 50,

GRID DATA COORDINATES (Feet)			HE AZI				MARK					
STATE: IONE: CODE:	Ariz. C 0202	7	484, 875,	741.08 546.89	263° - 0	561 01	13" 39	AZIMUTH	MARK	= TL	3 7	AMS
STATE:		I										

0-13304

	POSITION		SECONDS IN METERS	ELEVATION
GEODETIC	LATITUDE: 33° 24' 2	4.8131 HORTH 0.0075 WEST		418.5 METERS 1373 PEET
	TO STATION		GEODETIC AZIMU (From south)	TH DISTANCE (Motors)
AZIMUTH MAR	K = TL S 7 AMS		THIRD-ORD 263°54133	RR.
				77
-9				

U.S. DEPARTMENT OF CONNERCE COAST AND GEODETIC SURVEY

#### **DESCRIPTION OF TRIANGULATION STATION**

NAME OF STATION: BELL BUTTE (AMS)

STATE: Arizona

COUNTY: Maricopa

CHIEF OF PARTY: C. A. Annis

YEAR: 1962

DESCRIBED BY: B. P. B.

	SURFACE-STATION MARK, UNDERGROUND-STATION MARK	K, REFERENCE THE GROUND A	T THE ST	AND PRO	3W3M E M.E.			
	OBJECT		DEARSHS	Dia	TANCE		DIRECTI	IOM!
	GENECT		BENIGHO	PEET	METERS	7	DANKECII	TO ME
	TELEGRAPH PASS (USGS) Phoenix, KTAR TV Mast		- 1		7011	00	00	00.00
12a	R. H. No. 1	J-5.	SW N	19.46	0 miles 5.933	126	04 38	43.9
12a	Azimuth Mark R. M. No.2		E	approx. 0	5 mile 6.124	216	13	22.1

The station is located on the highest point of the Bell Butte Hills and on the northeast butte of a small group of three, it is about 7 miles southeast of Phoenix. about 2 miles southwest of Tempe and about 2 1/2 miles north of Guadalupe.

To reach the station from the intersection of E. Broadway Rd. and Priest Rd. and asimuth mark (U.S. Army War Department Corp of Engineers Survey Mark) in the northwest angle of intersection, go west on E. Broadway Rd. for 0.65 mile to butte and a side road left, turn left and go south around west side of hill to the southwest side and end of truck travel. From here pack northeast and east up hill to highest point and station.

Station mark, a U.S. Army War Department Corp. of Engineers Mark set in a drill hole in outcropping bedrock and is stamped BELL BUTTE 1948. The mark is 11 feet northwest of an 8 foot post an on the highest point of the hill.

Reference mark 1, a standard reference disk set in a drill hole in outcropping bedrock and is stamped BELL BUTTE AMS NO 2 1962. The mark is 29.6 feet northwest of an 8 foot post and about 2 feet lower than the station mark.

Reference mark 2, a standard reference disk set in a drill hole in outcropping bedrock and stamped BELL BUTTE AMS NO 2 1962. The wark is & feet south of an 8 foot post and about 1 foot lower than the station mark.

Asimuth mark, a U.S. Army War Department Corp. of Engineers Mark set in the top of a 10 inch round concrete post which is about 6 inches under ground and is stamped TL-S-7 ARMY MAP SERVICE 1960. The mark is 37 feet north of E. Broadway Rd., 32 feet west of Priest Rd., 21 feet east southeast on a power pole, 3.4 feet south of a rightof-way post and 3 feet north of a right-of-way post.

> N.S. DEPARTMENT OF COMMERCE - COAST AND SECONTIC SURVEY RECOVERY NOTE, TRIANGULATION STATION Card 1 of 1

R

NAME OF STATION: BELL BUFFE (AMS) Berandste et: C.A. Annis Yaan: 1962 Brate: RECOVERED BY C. A. Annis Year: 1963 County: Maricopa

Detailed statement as to the States of the original description; including marks found, stampings, changes made, and other pertinent facts: The station mark, azimuth mark, reference marks number 1 and 2 were recovered as described and found to be in good condition.

The description of to reach the station was found to be adequate.

U.S. DEPARTMENT OF CONMERCE - COAST AND GEODETIC SURVEY RECOVERY NOTE, TRIANGULATION STATION

R

NAME OF STATION: BELL BUTTE (AMS) ESTABLISHED BY: Yanighs Surarisons RECOVERED BY: P. A. Weber YEAR: 1964 CountyMaricopa

Detailed statement as to the States of the original description, including marks found, stampings, changes made, and other pertinent faster

The station and Reference No. 1 and No. 2 were destroyed by John Carollo Engineers of Phoenix Arizona and the disks forwarded to this office.

FORM 861 (7-88-90)

USCOMM-ESSA-ASHEVILLE

USECHALDE TRIBLET

HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM

QUAD 331113 STATION 1032 ARIZ LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

33015' 1110451

U.S. DEPARTMENT OF COMMERCE COAST AND SEDDETIC SURVEY

## DESCRIPTION OF TRIBUNER, ATION: STATION

TRAVERSE STATE: Arizona

соинту: Maricopa

NAME OF STATION AHGELO

CHIEF OF PARTY C. A. Annis

YEAR: 1962

DESCRIBED BY: R. D. S.

2	HEIGHT OF TELESCOPE ABOVE & SURFACE-STATION MARK, UNDERGROUND-STATION MARK	DISTANCES AND DI	RECTIONS TO	AZIMUTH MARI	HE GROUND AT	ARREST AR		METER
	OBJECT		T BEARING DISTAR					
			- CAMING	PECT	METERS	Di	RECTIO	DME
	BELLE BUTTE Guadalupo, KUPD R	(AMS) adio Mast				00	00	00
2a 2a	(center of 3) R. M. Ho. 1 R. M. No. 2		NNE ESE	approx.	0.5 mile 18.92h	36	11 45	26. 26

The station is located about 9 miles southeast of the center of Phoenix, about 4 miles south-southwest of Tempe, 1/2 mile west of Guadalupe and on a small rocky hill with a cross on top.

To reach the station from the junction of East Base Line Road and 56th Street, about 1/2 mile north of Guadalupe, go south on 56th Street for 0.4 mile to the post office in Guadalupe, continue south on 56 th Street for 0.2 mile, turn right, go west on San Angelo Street for 0.4 mile to the base of small hill with a cross on top. continue west up steep grade for 0.1 mile to the station.

Station mark, a standard traverse disk set in a drill hole in outcropping bedrock which is flush and is stamped ANGELO 1962. The mark 103 feet east-southeast of a cross on top of hill and is approximately 15 feet lower than the top of the hill.

Reference mark 1, a standard reference disk set in a drill hole in top outcropping bedrock which is flush and is stamped ANGELO NO 1 1962. The mark is 26.5 feet north of the center of track road and is approximately 15 feet lower than the station mark.

Reference mark 2, a standard reference disk set in top of out-cropping bedrock which is flush and is about 5 feet lower than the station mark. The mark is 19 feet north of center of track road and the disk is stamped ANGELO NO 2 1962.

No Azimuth mark set, Guadalupo, KUPD Radio Hast could be used as azimuth.

Distance from R. K. No.1 to R. M. No.2 is 43.22 ft. or 13.175 m.

Aleters to notes in manuals of triangulation and state publications of triangulation. Direction made measured clockwise, referred to initial station. The searces meter only, when no triangulation is being dime.

## ADJUSTED HORIZONTAL CONTROL DATA

NAME OF STATION: ANGELO

YEAR: 1962, 1963

STATE: Arizona

LOCALITY: Arizona Hwy. Survey, Papago Freeway (Ehrenberg to Phoenix to Casa Grande)

Second -ORDER Traverse

0-13304

FIELD SKETCH: AP12. 49-11

GRID DATA	COORDINATES (Foot)	PLANE AZIMUTH PION ARI ANGLE	MARK
STATE: APIZ. ZONE: C CODE: 0202	; 483,107.09 ; 862,121.22	223 07 48 - 0 01 50	STATION KUPD CENTER MAST
STATE: ZONE: CODE:	y y		
	POS	1TION	SECONOS IN ELEVATION

GEODETIC	POSITION	SECONDS IN METERS	ELEVATION
DATA	LONGITUDE: 33° 22° 11"9632 \ HORTH LONGITUDE: 111 58 19.1993 \ WEST		METER FEET
	TO STATION	GEODETIC AZIMU' (From south)	TH DISTANCE (Meters)
DUADALUPE R	ADIO STATION KUPD CENTER MAST	THIRD-ORDS 223°05'58"	CR.

JAN

Name of Station: Guadalupe, Radio Station KUPD, Center Hast

CHIEF OF PARTY: 0, A, Annis

approximately 257 feet high.

the right.

U.S. DEPARTMENT OF COMMERCE - COAST AND GEODETIC SURVEY DESCRIPTION OF TRIANGULATION INTERSECTION STATION

YEAR: 1962 STATE: Arizons

To reach from the post office in Guadalupe, go north on 56 th. Street for 0.25 mile, turn left and go west on Beverly Road for 0.2 mile to a driveway and the three masts on

Description, including sketch of object: Station is located about 1/4 mile north-northwest of Guadalupe. It is the center one of three identical masts, which are painted red and white and are

The point intersected was the red light on top of center mast.

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM

QUAD 331113 STATION 1033 LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

33015'

ADJUSTED HORIZONTAL CONTROL DATA

YEAR: 1962

NAME OF STATION: GUADALUPE RADIO STATION KUPD CENTER MAST STATE: Arizona

LOCALITY: Arizona Hwy. Survey, Papago Freeway

(Ehrenberg to Phoenix to Casa Grande)
Third-once Triangulation Source: G-12917 FIELD SKETCH: Ariz. 49-I

FIELD SKETCH: APIZ. 49-II 0-13304

GRID DATA	COORDINATES (Feet)	PLANE AZIMUTH (FOR &a) ANGLE	MARK
STATE APIE. ZONE: C CODE: 0202	* 485,047.11 y 864,192.20	- 0 01 37	
TATE: ZONE: COOF:	g y		

		POSITH	9H		SECONDS IN METERS	ELEVATION
GEODETIC	LATITUDE:	33° 22' 111 57	32".464 56.334	HORTH WEST		METER: PEET
	70	RTATION			GEODETIC AZIMUT	TH DISTANCE (Molore)
HIGH, ANGEI PORT	STATION CO., RIVER,	MPUTED F	ROM:	000DYEAI	2,	
				Ŧ		
				ш		
						-6-
OfM 261 (7-23-96)						USCOMA-DE 16261-FI

FILE GOPY

USCOMM-ESSA-ASHEVILLE

1967

1680

JULY 1966 PUBLISHED AND PRINTED BY: U.S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY WASHINGTON D.C.

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM

QUAD 331113 STATION 1034 ARIZ LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

330 151 1110 45'

U.S. DEPARTMENT OF COMMERCE COAST AND SEDDETIC SURVEY

### DESCRIPTION OF THE KNOWLETCH STATION

TRAVERSE

STATE: Arizona COUNTY Maricopa

C.A. Annis

HIGH

NAME OF STATION

CHIEF OF PARTY:

YEAR: 1962

DESCRIBED BY: R.P.K.

1b	SURFACE-STATION MARK, UNDERGROUND-STATION MARK	DISTANCES AND DIRE OBJECTS WI	CTIONS TO	I AZIMUTH MAR IE SEEN FROM	K, REFERENCE I THE GROUND AT	THE ST	HD PRO	MINERT
7a	ONIECT	ANIET		DIST	ANCE		KRECTI	OME
	BEECT		BEARING	PERT	METERS		MICCII	
	ANGELO					0°O	00	00.0
	Guadalupe, KUPD Ra	dio Mast	NNE	approx.	miles	05	12	52.7
11b		center of 3)	E	52,19	15.906	00	21	20 6
	Chandler, Municipal	L Water Tank	ESE	approx.	1/2 m.	97	37	12.7

Station is located about 11 miles southeast of Phoenix, about 8 miles west of Chandler, about 4 miles south of Guadalupe and on right-

of-way on south side of road.

To reach from S. Central Avenue and Baseline Hoad in the south part of Phoenix, go east on Baseline Road for 6.5 miles to S. 56th Street on right, turn right and go south on S. 56th Street for 4.4 miles to cross-a road (Ray Road) and Kyrene Store and 76 Service Station on right, turn right and go west on Ray Road for 0.6 mile to where road crosses canal, continue west for 0.1 mile to station on left.

Station mark, a standard traverse disk stamped HIGH 1962, is set in top of a concrete cylinder which is set flush with the surface of the ground. The mark is 26 feet east-southeast of a triangle blazed telephone pole, 25 feet south of center of road, 17 feet north of the north edge of irrigation ditch and 1.4 feet south of the witness post.

Reference mark 1, a standard reference disk stamped HIGH NO 1 1962, is set in top of a concrete cylinder which projects about 2 inches above the ground. The mark is 77.5 feet east of a triangle blazed telephone pole, 53 feet east of the witness post, 27 feet south of the center of road and 16 feet north of the north edge of irrigation ditch.

Reference mark 2, a standard reference disk stamped HIGH NO 2 1962, is set in the top of a concrete cylinder which is set flush with the surface of the ground. The mark is 50.2 feet west of the witness post, 27 feet south of the center of road, 25.5 feet west-southwest of a triangle blazed telephone pole and 16 feet north of the north edge of irrigation ditch.

Azimuth mark, a Corps of Engineers traverse station disk stamped TT R13 1948 RESET AMS 1952, is set in top of a concrete cylinder which projects about 7 inches above the ground. The mark is 61 feet northwest of center of intersection, 50 feet west of center of S. 48th Street, 34 feet north of the center of Ray Road and 2 feet north of the witness

To reach the azimuth mark from the station, go west on Ray Road for 0.3 mile to junction of S. 48th Street and azimuth mark in northwest corner of intersection as described.

\*Refers to notes in mounds of triangulation and store publications of triangulation. \*\*Direction-angle measured clockwise, refer [To nearest notes only, when no tripnometric leveling in being done.

#### ADJUSTED HORIZONTAL CONTROL DATA

NAME OF STATION: HIGH

YEAR: 1962

STATE Arizona

LOCALITY: Arizona Hwy. Survey, Papago Preemay

Second -oxoga Traverse

(Ehrenberg to Phoenix to Casa Grande) FIELD SKETCH: APIZ. 49-II

0-13304

PLANE AZIMUTH MARIN

STATE: API ZONE: C CODE: 020	7	843,84	5.64	91° - 0	25' 01	31 <sup>#</sup> \ 54	AZIMUTH	MARK	= 17	R	13	(EMA)
STATE: ZONE: CODE:	× y									Jun 1		18 7 ()

	POSITION	SECONDS IN METERS	ELEVATION
GEODETIC DATA	LATITUDE: 33° 19' 11"1287 HORTH LONGITUDE: 111 58 26.8321 WEST		HENCH METERS MARK FEET
	TO STATION	GEODETIC AZIMUTH (From south)	DISTANCE (Mefers)
RAM HTUMIKA	K = TT R 13 RESET AMS	THIRD-ORDER 91*23'36"8	
	5		

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM

ARIZONA

168c

QUAD 331113 STATION 1035 ARIZ LATITUDE 33°GO' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

330 151

#### U.S. DEPARTMENT OF CONNERCE COAST AND REODETIC SURVEY

### DESCRIPTION OF THE PROPERTY STATION

TRAVERSE

STATE: Arizona

county: Maricopa

CHIEF OF PARTY: C. A. Annis

for 0.2 mile to the station.

HAME OF STATION: PORT

YEAR: 1962

DESCRIBED BY: R. D. S.

lb 7a	URFACE-STATION MARK, DISTANCES AND DIRECTIONS TO AZIMUTH MARK, REPERENCE OBJECTS WHICH CAN BE SEEN FROM THE GROUND AT					MARKS AR THE STA	ID PRO	MMENT
-	OBJECT		BEARING	DIST	MCE		RECTR	
	GENECI		BEARING	PERT	METERS	"	MECIN	3441
	HIGH					00	00	00
11b	R.H. No. 1 Goodyear, Aux, Fi	eld Eater	NE	150.00	45.717	67	46	03
	Tank 1935		SE	approx.	6 miles	123	19	20.
11b	R.M. No. 2		SE	66.37	20,230	157	03	01
	Azimuth Mark (USC	LGS BM C (11)	SE '		0.55 mil			12.

The station is located about 7 miles west-southwest of Chandler, about 6 1/2 miles south of Guadalupe, about 1/4 mile east of a surfaced road and is set in the center line of proposed interstate highway.

To reach the station from the junction of East Baseline Road and south 56th Street, about 1/4 mile north of Guadalupe. Go south on 56th Street for 0.4 mile to the post office in Guadalupe, continue south on 56th Street for 4.65 miles to a "T" road, turn left, go east on Williams Field Road for 0.15 miles to a side road right, turn right, go south for 1.95 miles to a dim track road left, turn left off road, thence left and go north for 0.1 mile, turn right and follow cleared line southeast

Station mark, a standard traverse disk set in top of a round concrete post which projects about 5 inches and is stamped PORT 1962. The mark is set in the center line of the proposed highway and is 2.6 feet southwest of witness post.

Reference mark 1, a standard reference disk set in top of a round concrete post which projects about 5 inches and is stamped PORT NO 1 1962. The mark is 147.9 feet northeast of witness post and 1 foot southwest of a yellow 2 x 4 witness post.

Reference mark 2, a standard reference disk set in top of a round concrete post which projects about 4 inches and is stamped PORT NO 2 1962. The mark is set in the center of proposed highway, 65.0 feet southeast of witness post and 1 foot northwest of a yellow 2 x 4 witness post.

Azimuth mark, a standard U.S.C.& G.S. Bench mark set in top of a round concrete post which projects about 3 inches and is stamped C 414, 1962. The mark is 29.5 feet southeast of an Arizona Highway Department Survey mark (POT 949 4501), 26.0 feet southeast of (AHD) witness post and 3.2 feet north of witness post.

To reach the Azimuth mark from the station, go southeast for 0.55 mile to the azimuth mark as described.

Refers to noves in matuals of triangulation and state publications of triangulation. † Direction-angle mensured clockwise, referred to initiation of triangulation.

## ADJUSTED HORIZONTAL CONTROL DATA

NAME OF STATION: PORT

YEAR: 1962

STATE: Arizona

LOCALITY: Arizona Hwy. Survey, Papago Freeway

Second -onces Traverse

(Rhrenberg to Phoenix to Casa Grande) scuece: G-12917 FIELD SEETCH: Ariz. 49-II

0-13304

GRID DATA	COGRDINATES (Feet)	PLANE AZIMUTH MOR dal AHGLE	MARK
STATE: APIR. ZONE: C CODE: 0202	* 485,178.62 * 828,757.01	327° 01' 07"\ - 0 01 36	AZIMUTH MARK = EM C 414
STATE: 20NE: CODE:	<b>x</b>	7 800	v

	PONT	ЮН	SECONDS IN METERS	ELEVATION
SECONTIC	LATITUDE: 33° 16° LONGITUDE: 111 57	41"8442 NORTH 54.5891 WEST		HENCH METER
2	TO STATION	==	GEODETIC AZIMU	TH DISTANCE (Melece)
AZIMUTH MARI	C = EM C 414		THIRD-ORDE 326*59130"	R \ 6 ^
		12		100
			55	
			N	ļ
. 8		88		3
			0	\$33
2				
			70%	= 100
OM 11 (7-14-11)		8	74	UNIONAL DE INI

FILE GOPY

USCOMM-ESSA-ASHEVILLE

AN 1967

in azlmuth 10°33'.

Pore 326 (11-6-55)

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM

QUAD 331113 STATION 1036 ARIZ LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

330151

ADJUSTED HORIZONTAL CONTROL DATA

NAME OF STATION: GOODYRAR \

STATE Arizona

YEAR: 1935

First -oncen Triangulation \sounce:

LOCALITY: Ajo to Tucson to Phoenix to Winkelman G-3058 \ G-12917 \

Ariz. 9

GRID DATA	COORDINATES (Poot)	PLANE AZIMUTH #IOR Ad) ANGLE	MARK
STATE: Arls. ' ZONE: C CODE: 0202	* 506,105.19 y 824,132.48\	309° 53' 54" + 0 00 39	AZIMUTH MARK, GOODYEAR AUX FIELD WATER TANK
STATE: ZONE: CODE:	x y		

	POSITION	SECONDS IN METERS	ELEVATION
GEODETIC DATA	LATITUDE: 33° 15' 56"1137 HORTH LONGITUDE: 111 53 48.0940 WEST		METER: FEET
	TO STATION	GEODETIC AZIMUT	H DISTANCE (Motors)
AZIMUTH M/	ARK, GOODYBAR AUX PIELD WATER	THIRD-ORDER 309°54'33"1	
			6,54

USCOMM-ESSA-ASHEVILLE

USCONADO 18281-P6

JAN

1967

F D Nau 201 (7-23-50)

U.S. DEPARTMENT OF COMMERCE - COART AND GRODETIC SURVEY RECOVERY NOTE, TRIANGULATION STATION

NAME OF STATION: GOODYEAR ESTABLISHED BY: E.B.L. Yman: 1935 Brave: Arizona RECOVERED BY: A.M.S. YEAR: 1959 County: Maricopa

Detailed statement as to the Staces of the original description; including marks found, stampings, changes made, and other pertinent factor

Goodyear (Maricopa County, E. B. Latham, 1935).—About 4 miles southwest of the town of Chandler, on a small sandy rise in the middle of sec. 12, T. 2 S., R. 4 E. Marked by a standard bronze disk as described in note 1a. Reference

mark No. 1, a standard bronze reference disk, note 11a, is 24.780 meters (81.30 feet) from station in azimuth 236°57′. Reference mark No. 2, a standard

bronze reference disk, note 11a, is 18.660 meters (61.22 feet) from station

Station and reference mark 1 found destroyed. Reference mark 2 recovered as described in good condition.

> U.S. DEPARTMENT OF CONMERCE - COAST AND GEODETIC SURVEY RECOVERY NOTE, TRIANGULATION STATION

NAME OF STATION: GOODY EAR Established by: E. B. L. YEAR: 1935 STATE: Arizons RECOVERED BY: \* C. A. Annis YMAN: 1962 COUNTY: Maricopa

Detailed statement as to the fitness of the original description; including marks found, stampings, changes made, and other pertinent facts; The station was recovered, the surface station mark and reference mark 1 had been destroyed, the sub surface mark was found to be loose in the ground and reference mark 2 was found to be in good condition.

Station GOODYEAR 2 was established at this time, in the approximate location of the original station.

B. P. Brunetti

168C

ARIZONA

PUBLISHED AND PRINTED BY: U.S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY WASHINGTON D.C.

## HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM QUAD 331113 STATION 1036 ARIZ LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

GOODYEAR (Continued)

330 15

U.S. DEPARTMENT OF COMMERCE COAST AND SEQUETIC SURVEY

#### **DESCRIPTION OF TRIANGULATION STATION**

HAME OF STATION: GOODYEAR 2

STATE: Arizona

COUNTY: Maricopa

CHIEF OF PARTY: C. A. Annis

YEAR: 1962

DESCRIBED BY: B. P. Brunetti

- 0	-	1	100.44						~X8.
J	HOTE." HEIGHT OF TELESCOPE ABOVE STATION MARK 19.44 METERS, HEIGHT OF LIGHT ABOVE								
I	16 7a	SURFACE-STATION MARK, UNDERGROUND-STATION MARK	TIONS TO	AZIMUTH MARK E SEEN PROM T	, REFERENCE A HE GROUND AT	THE ST	HD PROM	MENT	
1		OBJECT			DISTA	HÇE	DIRECTIONS		48
1					PEET	METERS	· `	DINECTIO	
1								,	**
1		CILA BUTTE	: 1935	i I	1 1		00	00	00,00
1	lla	R.H. No. 2		5	60.12	18,324 "	26	09	41 - 1
1		Quadalupe, KUPD Radio	Mast	N//	approx. 1	0.0 miles;	167	26	51.5 4
1	17b	Azimuth Hark		NNE	approx. 0		229	13	45.4
1	11b	R.M. No. 3		ENE	70.52	21,496	258	42	24 - 1
		Goodyear Water Tank 1	935 (Aux. Pield)	SE	approx. A		325	n/.	16.2 %

The station is located about 4 miles southwest of Chandler and about 4 miles north of the Maricopa-Pinal County Line on a small sandy rise in the middle of section 12, T2S, RAE.

12, T25, R4E.

To reach the station from the intersection of Arizona Ave. and Cleaveland Ave.

which changes to Williams Field Road, go west on Cleaveland Ave, for 3.0 miles to the

intersection of Williams Field Road and Price Road, turn left and go south on Price

Road for 2.05 miles to Germann Road, continue south on Price Road for 0.45 mile to the

Azimuth Mark on right, continue south on Price Road for 0.35 mile to a track road right,

turn right and go west through dumping grounds for 0.15 mile to a fork, keep left fork

for 0.1 mile passing to the left of bee hives, continue for 0.1 mile to a dim fork,

keep right for about 0.05 mile to the station on right as described.

Station mark, a standard triangulation disk set in the top of a 12 inch round concrete post which projects about 2 inches and stamped GOODYEAR 2 1962. The mark is 66 feet northeast of a track road and 3.4 feet northwest of the witness post.

Reference mark 2, a standard reference disk set in the top of a 12 square concrete post which projects about 2 inches and stamped GOODYEAR NO 2 1935. The mark is 58.6 feet south of the witness post and 18 feet east of a track road.

Reference mark 3, a standard reference disk set in the top of a 12 inch round concrete post which projects about 8 inches and stamped GOODYEAR 2 NO 3 1962. The mark is 69.3 feet northeast of the witness post and 37 feet north of a track road.

Azimuth mark, a standard azimuth disk set in the top of a 12 inch round concrete post which projects about 6 inches and stamped GOODYEAR 2 1962. The mark is 28 feet west of the center of road, 2.4 feet south of the witness post and 1 foot east of the fence.

Refers to notes in mmonts of triangulation and state publications of triangulation. Direction-angle measured elochwise, referred to in the Cities and the network meter only, when no trigonometric leveling is being done.

### ADJUSTED HORIZONTAL CONTROL DATA

HAME OF STATION: GOODYEAR 2

YEAR: 1962

STATE, AFIZONE

LOCALITY: Arizona Hwy. Survey

Ehrenberg to Phoenix to Casa Grande

First\_ondem Traverse

SOURCE: 0-12917 0-13304 FIELD SKETCH, Ariz. 49-II

GRID DATA	COORDINATES (Feet)	PLANE AZIMUTH #(OR &g) ANGLE	MARK	
STATE: AFIZ. ZONE: C CODE: 0202	2 506,105.44 9 824,131.31		AZIMUTH MARK	
STATE: ZONE: CODE:	x y	4		

	POSITION	SECONDS IN METERS	ELEVATION
DATA	LATITUDE: 33° 15' 56".1021 NORTH LONGITUDE: 111 53 48.0911 WEST		362.7 METER 1190 FEET
	TO STATION	GEODETIC AZIMU (From south)	TH DISTANCE (Motors)
AZIMUM MA Posit GOODYEAR t vations to	ion determined by traverse from hrough RM 2 and checked by obser- and from other stations	THIRD-ORDER 214°03'51"3	
	,		

FILE GOPY

JAN

967

HORIZONTAL CONTROL DATA

Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM

QUAD 331113 STATIONS 1077, 1078 ARIZ LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

330151 1110 45'

### ADJUSTED HORIZONTAL CONTROL DATA

AINWAY BEACON AT AIRPORT NO 34 A NAME OF STATION:

YEAR: 1935

STATE: APIZ

LOCALITY: Ajo to Tucson to Phoenix to Winkelman

Third -onnen Triangulation sounce: G-3058 (No check on this position)

FIELD SKETCH: ARIZ 9

GRID DATA	COORDINATES (Foot)	PLANE AZIMUTH 8 ION DOI ANGLE	MARK
STATE: APIZ ZONE: C CODE: 0202	557,824 7 752,966	0 06 11 \	
STATE: ZONE: CODE:	x y		

	POSITION			METERS	ELEV	ATION
GEODETIC	LATITUDE: LONGITUDE:	33°04'11"42 111 43 40.47	WALL TANK			METERS FEET
2-22				TIC AZIMUTH	DISTA	MCE
	TO STATIO		(A)	- county	LOGARITHM (Meters)	HETERS
Comput	ted from sta	tions SWEET, SANT	AN			

Airway beacon at Airport No. 34a (Pinal County, W. B. Latham, 1935)

#### ADJUSTED HORIZONTAL CONTROL DATA

NAME OF STATION: PHOENIX TUCSON AIRWAY BON O

YEAR: 1938

STATE: APIZ

LOCALITY: Queen Creek Area

Third -order Triangulation source: G-4029

FIELD SKETCH: ARIZ 17

GRID DATA	COORDINATES (Foot)	PLANE AZIMUTH # (OR DOI ANGLE	MARK	
STATE: APIZ ZONE: C CODE: 0202	* 481,011.23 * 861,054.94	- 0 02 03		
STATE: ZONE: CODE:	x y			

	POSITION		DHDS IN TERS	ELE	WATION
DATA	LATITUDE: 33°22'01"401 LONGITUDE: 111 58 43.906	HORTH WEST			NETER FEET
		GEODETIC AZIN	<u>.</u>	DIST	ANCE
	TOSTATION	(Pres east)		LOGARITHM (Meters)	METERS

Phoenix-Tucson airway beacon 0 (Maricopa County, F. G. Johnson, 1038) .-

PHOENIX-TUCSON AIRWAY BEACON O (Maricopa County, Ariz., F.G.J., 1938; L.W.Q., 1955) (No previous description) -- The station was recovered in good condition. This is an intersection station.

# HORIZONTAL CONTROL DATA

Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM

QUAD 331113 STATION 1076 ARIZ

LATTUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

330151 111045'

ADJUSTED HORIZONTAL CONTROL DATA

YEAR: 1935

NAME OF STATIONS WHITEM

STATE: AF1Z

LOCALITY: Yuma to Stewart Dam

Second-oncer Triangulation source: G-3022

FIELD SKETCH: ARIZ 8-II

GRID DATA	COGRDINATES (Feet)	PLANE AZIMUTH 8 IORÁGI ANGLE	MARK		
STATE: AP1Z ZONE: C CODE: 0202	508,764.90 878,485.94	- 86°48'34" - - + 0 00 57	AZIMUTH MARK (RM NO 3)		
STATE: 20HE: CODE:	x y	4			

		POSITION		SECONDS IN METERS	ELEVATION	
GEODETIC DATA	LATITUDE: LONGITUDE:	33°24'53"918 111 53 16.592	NORTH WEST		364.0 1,194	METERS FEET
			1		DISTANCE	

	FORCIARE:	111 53 16.592	6.592		94	
HOITATS OT				DISTANCE		
			GEODETIC AZIMUTH (Frim south)	LOGARITHM (Melece)	METERS	
AZIMUTH N	AZIMUTH MARK (RM NO 3)		THIRD-ORDER 86°49'31"2	T-	parti.	

WHITEM (Maricopa County.Ariz., B.B.L., 1935; L.W.Q., 1953)
The station and reference mark 1 were not recovered. Reference mark 2 was recovered in good condition. Mr. E.M. White of the original description no longer lives at the site. A service station has been constructed at the station site, and it is believed that the station is destroyed.

> U.S. DEPARTMENT OF COMMERCE - COAST AND GEOMETIC SURVEY RECOVERY NOTE, TRIANGULATION STATION

Whitem (Maricopa County, E. B. Latham, 1935).—About 3 miles west of Mesa, on the north side of U. S. Highway No. 80 and in the yard of Mr. E. M.

White. Station mark is about 15 feet east of the fence at the west edge of the yard, and about 50 feet north of the ditch. Marked by standard bronze disks as

described in notes 1a and 7a. Reference mark No. 1, a standard bronze reference

disk, note 11a, is 22.70 meters (74.5 feet) from station in azimuth 209°07'. Ref-

erence mark No. 2, a standard bronze reference disk, note 11a, is 40.64 meters (133.3 feet) from station in azimuth 282°47'. Azimuth mark is Coast and

Geodetic Survey bench mark M 22, 1933, set in a concrete headgate of the ditch on the north side of U. S. Highway No. 80 and in azimuth 86°49'31".

1821 **R** 

NAME OF STATION: WHI TEM Established at: E.B.L. RECOVERED BY A AM . S .

Yman: 1935 State: Arizons YEAR: 1960 COUNTY: Haricopa

Detailed statement as to the fitness of the original description; including marks found, stampings, changes made, and other pertinent facts: The station mark and reference marks were searched for but not found and are presumed lost. A service station has been built over the station site.

"Name of which of course chould be imported here. The officer who actually visited the station should side his name at the end of the receiver and

1967 JAN

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM

1680

**QUAD 331113 STATION 1070** LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

> 330/51 111045

ADJUSTED HORIZOHTAL CONTROL DATA

NAME OF STATION:

YEAR: 1935

STATE: AP1Z

LOCALITY: Ajo to Tucson to Phoenix to Winkelman

Second -oncen Triangulation source: Q-3058

FIELD SKETCHI ARIZ 9

GRID DATA	COORDINATES (Poet)	PLANE AZIMUTH # IORÁGI ANGLE	МАЯК		
STATE: Ariz TONE: C COOE: 0202	* 493,894.59 * 838,531.03	312°43'56" - 0 00 40	AZIMUTH MARK (RM NO 3)		
STATES	x				
ZONE:	y	W			
CODE:		1.67			

SEODETIC	POSITION		SECONOS IN NETERS	ELEVATION	
DATA	LATITUDE: LONGITUDE:	33°18'18"584 111 56 11.941	HORTH		METERS PEET

111 50 11.941		l		PERI
TO STATION	GEODE	TIC AZINUTH		AHCE
	{Pm	— onudi)	LOGARITHM (Meters)	HETERS
AZIMUTH MARK (RM NO 3)	THE	RD-ORDER *43'16"4"		
NATURE WARE (NA NO 3)	312	°43'16"4"		
		-		
				ĺ
	1			
		- 1		
			92	
- 50				
e empy				
				nii .
	1			'

R

RECOVERY NOTE, TRIANGULATION STATION

NAME OF STATION: RAY

Betasusass av B. B. Latham RECOVERED BY: N.E. Sylar

Ymam: 1935 Statm:Arisona Yman: 1960 County: Marigona

Detailed statement so to the fitness of the original description; including marks found, stampings, changes made, and other partisent facts:

Ray (Maricopa County, E. B. Latham, 1935).-About 5.5 miles due west of the town of Chandler, about 8.0 miles due south of the town of Tempe, and 1.5

miles west of the Ray Estrella store, just south of the south ditch south of

the road. Marked by standard bronze disks as described in notes in and 7a. Reference mark No. 1, set in concrete culvert under road northeast of station,

is 22.333 meters (73.27 feet) from station in azimuth 221°27'. Reference mark

No. 2, a standard bronze reference disk, note 11a, is 18.437 meters (60.49 feet)

from station in azimuth 292°47'. Azimuth mark (reference mark No. 8) set in concrete culvert northwest of pumphouse (22 E. 5½ S.), is one-half mile from station in azimuth 312°43′16".

U.S. DEPARTMENT OF COMMERCE - COAST AND GEODETIC SURVEY

The station mark was found on the south side of a fence line on the south side of the road near the immediate vicinity of its original position. The reference marks were searched for and could not be found, as all evidence indicate they have been destroyed due to construction. The azimuth mark was recovered and found in good condition as

There has been considerable grade work done on the road and on new irrigation ditches. According to measurements and angles, there is an irrigation ditch about 4 feet deep where the station mark was originally set, and evidence indic ate the underground mark is also destroyed.

16 88 JULY 1966

U. S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

3375

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM QUAD 331113 STATION 1067 ARIZ LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

Mesa (Maricopa County, E. B. Latham, 1935).—In the yard of the largest of the two water tanks in the city of Mesa, and 95 feet east of the west leg of the tank. Marked by standard bronze disks as described in notes 1a and 7a. Reference mark No. 1, a standard bronze reference disk, note 11a, is 21.007 meters (71.87 feet) from station in azimuth 350\*07'. Reference mark No. 2, a standard bronze reference disk, note 11a, is 28.608 meters (94.15 feet) from station in azimuth 102\*20'. The azimuth mark (reference mark No. 3), a standard bronze disk, is 1 block east from station in azimuth 203\*57'58''.

MESA (Maricopa County, Ariz., E.B.L., 1935; L.N.Q., 1953)

The station and reference mark 2 were not recovered. Reference mark 1, at the base of the W leg of the water tank, was recovered in good condition. The azimuth mark was not searched for. A road now passes over the station site. No attempt was made to uncover the station.

Form 526 (11-9-45) U.B. DEPARTMENT OF COMMENCE - COAST AND GEODETIC SURVEY RECOVERY NOTE, TRIANGULATION STATION

R

NAME OF STATION: MESA

RECOVERED BY: E.B.L. A.H.S.

YEAR: 1935 Brate: Arlzona Year: 1955 County: Maricopa

Detailed statement as to the Staces of the original description; including marks found, stampings, changes made, and other pertinent factor

Station recovered as described. The station is 74 feet % of centerline FW street; 74 feet W of centerline NS street; 76 feet S centerline FW sidewalk.

Porm 526 (11-0-85) U.S. DEPARTMENT OF COMMERCE - COAST AND GRODETIC SURVEY RECOVERY NOTE, TRIANGULATION STATION

R

NAME OF STATION: MESA

ESTABLISHED BY:
RECOVERED BY: A.M.S.

Ymam: 1935 State: Arizona Ymam: 1960 County: Maricopa

Detailed statement as to the fitness of the original description including marks found, stampings, changes made, and other pertinent facts:

The station was recovered in good condition. It is located just E of the fenced yard containing the larger of two water tanks of the city of Mesa. It is 14.8 ft. E of the N-S fence, 18.7 ft. NE of the SE corner of the yard fence, and 65.2 ft. S of the S edge of the E-N sidewalk. The station is approximately 0.3 ft. beneath the surface of the dirt road.

The reference marks were recovered in good condition.
The azimuth mark was searched for but not found.

The azimuth mark was searched for but not found.

Secretary of the search of the

R

NAME OF STATION: MESA
ESTABLISHED BY: A.H.S. YEAR1935 STATE: Arizona
Recovered by: C. Andreasen Year1966 Countiliaricopa

Detailed statement as to the fitness of the original description including marks found, stampings, changes made, and other pertinent facts:

The station was recovered as described and all marks were found in good condition. The description to reach the station is completely adequate.

Foto Porty 6-47

#### ADJUSTED HORIZONTAL CONTROL DATA

HANE OF STATION: MESA

YEAR: 1935

STATE: AT12

LOCALITY: Yuma to Stewart Dam

First -onces Triangulation

FIELD SKETCH: ARIZ 8-II

GRID DATA	COORDINATES (Peet)	PLANE AZIMUTH # (GRÁCE) ANGLE	MARK
STATE: APIZ ZOHE: C CODE: 0202	526,471.56 7 880,778.13	263°55'06" + 0 02 52	- AZIMUTH MARK (RM NO 3) -
STATE: ZONE: CDDE:	x y		

	POSITION		SECONDS IN METERS	EFE	VATION
DATA	LATITUDE: 33°25'16"501 LONGITUDE: 111 49 47.667	HORTH		1,2	77.5 METER:
TOSTATION				DIST	ANCE
			TIC AZIMUTH	LOGARITHM (Meters)	METERS
A 7 TMT PT	H MARK (RM NO 3)		D-ORDER 57/57"B		

FILE COPY

AUG 1969

JULY 1966

U. S. DEPARTMENT OF COMMERCE ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION COAST AND GEODETIC SURVEY

REVISED JUNE 1969

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM

QUAD 331113 STATION 1066 ARIZ

LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

ADJUSTED HORIZONTAL CONTROL DATA

NAME OF STATION MAGMA

STATE ARIZONA

YEAR: 1936

SECOND-puppe

PAPAGO INDIAN RESERVATION

source: G-3083

PIELD SKETCH: ARTZ 14

	• • •			,
GEODETIC LATITUDE:	33 00 03.04891	ELEVATION	Bench	METERS
GEODETIC LONGITUDE:	111 30 04.61528		Mark	FEET

STATE COORDINATES (Fet)					
STATE & ZONE	CODE		٧	β (OR Δ α) ANGLE	
ARIZ. C.	0202	627,156.17	776,574.97	+ 0 13 37	
			-		

TO STATION OR OBJECT	(free mark)	PLANE AZIMUTH (From mark)	3400
AZIMUTH HARK	322 25 17.8	322 11 41	0202

DEPARTMENT OF COMMERCE Porm 836 (Rev. Prb. 1981)

RECOVERY NOTE, TRIANGULATION STATION

NAME OF STATION: Magma

CAGS Van: 1936 State: Arizona ESTABLISHED BY: RECOVERED BY: Carl H. Davis You: 1967 County: Pinal

Detailed statement as to the fitness of the original about ption; including marks found, stampings, changes made, and other pertinent facts:

Detailed statement as to the Steam of the original description; including marks (round, stamples, changes made, and other pertinent facts:

The station mark, stamped "MAGMA 1936", is about 0.15 mile northwest along the Southern Pacific Railroad from the station sign at Magma, in section 26, T 38, R 8 E, 0.1 mile southeast of a crossing of the railroad and a road, 6 rails southeast of semaphor number 9495, 28 feet southwest of the southwest rail of the southwest set of tracks, 36 feet northwest of the northwest side of a small metal building, 18 feet northwest of the center line of a dirt road which parallels the tracks, 0.5 loct northwest of a metal witness next whent 4 feet where the level of the tracks, 0.5 loct northwest of a netal witness post, about 4 feet above the level of the tracks, and on the top of a 1-inch iron pipe which projects 12 inches.

R.M. 2, stamped MaGMA MO 2 1936", is 391 feet mouthwest and across a road from the station mark, 67 feet southwest and across a road from the southwest rail of the southwest set of tracks, 21 feet southwest of the center line of a dirt road which parallels the tracks, 51 feet west and across the road from a small metal building, 5 feet northeast of the northeast concrete bank of an irrigation canal, 0.5 foot northeast of a metal witness post, about 1 foot above the level of the road, and on the top of a 1-inch iron pipe which projects 14 inches.

R.M. 3, stamped "MAGHA NO 3 1936", is 61 feet west and across the road from the station mark, 73 feet southwest and across a road from the southwest rail of the southwest set of tracks, 26 feet southwest of the center line of a dirt road which parallels the tracks, 4 feet northeast of the northeast concrete bank of an irrigation canal, 0.6 foot east of a metal witness post, about level with the road, and set in the top of a concrete post projecting 4 inches.

Magma (Pinal County, J. Bowie, Jr., 1936).—About 200 yards northwest of the Southern Pacific depot known as Magma (now abandoned), on a slight rise of ground, 163 meters southwest of the southwest rail of the railroad tracks, 173 feet south of the extended center line of the road which runs on a tangent for 2 miles west from the railroud to the old Florence-Phoenix Highway, 6.5 meters northeast of the center line of an old road that parallels the railroad, 35.6 meters south of a switch past, 22.3 meters northwest of a square telephone pole. The station and reference warks are standard bronze disks set in pipes embedded in circular masses of concerte. Reference mark No. 1 is 12.2 meters southwest of the southwest rail of the railroad, 10.2 meters northwest of a square telephone pole, 12.5 meters northeast of the center line of the road that parallels the railroad tracks, and 12.173 meters (39.04 feet) from station in azimuth 292°16'. Reference mark No. 2 is 5.6 meters southwest of the center line of the road that parallels the tracks, about 60 yards bouth of the extended center line of the road mentloned above and 11.980 meters (39.30 feet) from station in azimuth 44°41'. The azimuth mark, a standard bronze disk, note 11a, is 200 yards southeast of the railroad depot, 29 paces southwest of the railroad tracks, 21 paces southwest of a telephone line, 4 paces northeast of the extended line of a corral fence which is about 125 yards to the northwest and about 0.3 mile from station in azimuth 322°25'20".

DESCRIPTION OF TRIANGULATION STATION

NAME C. STATION: MARMA 1936 Recovered By:

pe	Selfane-clation mark. U. Sorground-station mark	DISTANCES AND DIRECT	ETIONS TO AZIMU HCH CAN BE SEEN	TH MARK, REFE FROM THE GRO	SUND AT THE S	TATION	321114574	, OKCELT
- 1		urct	BEARING	DISTA	NCE		DIRECT	110011
,	Oa	ULCT	BEARING	feet	meters			-
1	Reference Mark Reference Mark Reference Mark	No. 2	SE S SW	39.94 39.33 60.85	12.173 11.987 10.547		00 28 11	00.9 29.2 52.4

yards northwest of the old Magma station (now abandoned) on the Southern

The station mark is a standard disk stamped MAGMA 1936, brazed to the top of 12 inch bronze rod and projecting about 10 inches. It is 60 feet southest of the southwest rail of the track. It is 35 feet northeast of a concrete irrigation ditch or canal, 19 feet northeast of the center of a dirt road, 200 yards northwest of a sign Magma and 1 foot west of a witness post.

of a witness post.

in the top of a cylindrical concrete monument and projecting 3 inches. It is 100 feet south of the southwest rail, 21 feet south of the center of a dirt road, 3 feet northwest of a concrete irrigation canal and 1 foot west of a witness post.

continue shead west for 1.0 mile to a road right, turn right and go north on a dirt road for 2.0 miles to a crossroad, just before reaching a railstation on the left as described.

The azimuth mark was found broken off and the disk was removed by this party.

Reference mark No. 1 was destroyed after the observations were made by this party.

USCOMM-ESSA-ASHEVILLE

COUNTY: Pinal STATE: Arizona

CHEEF OF PARTY: P. A. Weber YEAR: 1964 Described by: J.V.C.

The station is located about 10 miles northwest of Florence and 200 Pacific railroad.

Reference mark No. 2 is a standard disk stamped MAGMA No 2 1936, brazed to the top of a la inch bronze rod and projecting about 10 inches. It is 98 feet south of the southwest rail, 19 feet south of the center of a dirt road, 5 feet north of a concrete irrigation canal and 1 foot west

Reference mark No. 3 is a standard disk stemped MAGMA NO 3 1936, set

To reach the station from the junction of State Highway 287 (Butte Avenue) and US Highway 80 in the southeast edge of Florence; go north on US Highway 80 for 6.2 miles to a road left, turn left and go west on a blacktop road for 5.5 miles to a crossroad and Magma Gin on the right, road crossing, turn left and go west for 1.0 mile to a T-road just after passing under a power line, turn left and go south for 1.1 miles to a railroad track, cross track and turn left southeast for 0.1 mile to the

330 151 1110 45

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey **NORTH AMERICAN 1927 DATUM**  QUAD 331113 STATION 1063 ARIZ LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

Falfa (Maricopa County, J. Bowie, Jr., 1936).—On the east side of State Highway No. 87, 4.6 miles south of Mesa. Station marks are brouze disks as described in notes 1a and 7a. Reference mark No. 1, a standard bronze reference disk, is cemented in culture bulkhead at cross roads and is 29.405 meters (1984). \*\*Connected in culture bulkhead at cross roads and is 29.405 meters. ence disk, is cemented in cuivert bulkhead at cross roads and is 29.405 meters (96.47 feet) from station in azimuth 0°02′. Reference mark No. 2, a standard bronze reference disk, is cemented in concrete highway opposite the station and is 11.980 meters (39.30 feet) from station in azimuth 90°16′. The azimuth mark is along the west side of Highway No. 87 near the west right-of-way boundary fence and about 0.3 mile from station in azimuth 177°41′14′′.

FALFA (Maricopa Co., Ariz., J.B., Jr., 1936; N.B.A., 1942) -The station was found

in good condition as described.

ADJUSTED HORIZONTAL CONTROL DATA

NAME OF STATIONS

YEAR 1936

STATES APIZ

LOCALITY: Papago Indian Reservation

Second -once Triangulation source: 0-3083

FIELD SKETCHI ARIZ 14

GRID DATA	COORDINATES (Feet)	PLANE AZIMUTH 8 IORĀM ANGLE	MARK
STATE: AP1Z ZONE: C COOR: 0202	* 523,109.13 , 854,851.78	177°38'44" + 0 02 30	AZIMUTH MARK
STATE: 20HE: CODE:	x y		

	POSITION		SECONOS IN METERS	ELEVATION
GEODETIC	LATITUDE: 33°20'59"996	NONTH		METERS
DATA	LONGITUDE: 111 50 27.562	WEST		FEET

		PEET
DETIC AZIMUTH	DISTA	NCE
From south)	LOGARITHM (Motore)	HETERS
IRD-ORDER 7°41'14"0 -		
:		
		•
* 8		
	₩ 8	<sup>4</sup> k ⊗

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM ARIZONA

QUAD 331113 STATION 1062 ARIZ LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

#### ADJUSTED HORIZONTAL CONTROL DATA

NAME OF STATION: CANARR

YEAR: 1936

STATES APIZ

LOCALITY: Papago Indian Reservation

Second -oncem Triangulation sounce: 0-3083

PIELO SKETCHI ARIZ 14

GRID DATA	COORDINATES (Feet)	PLANE AZINUTH # 10# Acs ANGLE	MARK
STATE: AP1Z ZONE: C CODE: 0202	* 551,640.47 y 846,403.84	38°13'29" + 0 05 34	AZIMUTH MARK
STATE: IONE: CODE:	z Y		

		POSITION		SECONDS IN METERS	ELEVATION
DATA	LATITUDE: LONGITUDE:	33°19'36"075 111 44 51.363	NORTH WEST		METERS FEET

	111 44 51.303			_
-15		SEGDETIC AZIMUTH	DISTA	NCE
	TO STATION	(From courts)	LOGARITHM (Motors)	METER
AZIMUTH MA		THIRD-ORDER 38°19'03."1		
		200		

Canarr (Maricopa County, J. Bowie, Jr., 1936).—At the intersection of Highland or Eastern Canal with the Southern Pacific Railroad, 7.1 meters northwest of the northwest bank of the canal, 2.1 meters southeast of a wire fence at a point where it makes a jog, 16.5 meters southwest of a concrete water gate, and 32.8 meters southwest of the southwest rail of the railroad tracks. There is a road between the station and the canal. (The canal runs approximately northwest and southwest, and the railroad runs approximately northwest and southwest, and the railroad runs approximately northwest and southwest, and the railroad runs approximately northwest and southeast.) The station and reference marks are standard disks in the top of pipes which are set in concrete. The concrete is a circular mass, the top of which is bout 3 inches below the ground surface. The disk projects about 8 inches above the ground surface and about 11 inches above the top of the concrete. Reference mark No. 1 is 40 paces southwest of the southwest rail of the railroad tracks. 5 paces southwest of a wire fence, about 1 meter southeast of the southeast bank of the concrete canal and 17.269 meters (56.66 feet) from station in azimuth 318.12. Reference mark No. 2 is about 51 meters southwest of the southwest rail (mentioned above), 13.8 meters northwest of the northwest bank of the canal, 6 inches east of a wire fence line and 19.059 meters (62.53 feet) from station in azimuth 59°22'. The azimuth mark, a standard bronze disk, note 11a, is about one-fourth mile southwest of the railroad, on the northwest side of the canal about halfway between the road and the right-of-way fence and 0.2 mile from station in azimuth 28°19'03''.

CAMARR (Maricopa Co., Ariz., J.B., Jr., 1936; U.S.B.R., 1942)

supporting pipe bent over, reference marks intact.

U.S. DEPARTMENT OF CONMENCE - COAST AND GEODETIC SURVEY RECOVERY NOTE. TRIANGULATION STATION

NAME OF STATION: CAHARR

RECOVERED BY: J.B.Jr.
RECOVERED BY: A.M.S.

Yman: 1936 State: Arizona Yman: 1956 Countr: Maricopa

Detailed statement as to the fitness of the original description; including marks found, stampings, changes made, and other pertinent facts:

Station not found - indicated measurement would place mark on a field drive and as it projected above ground it is believed to be destroyed.

Reference mark 2 was found badly bent over-Reference mark 1 not found. Azimuth mark found destroyed.

"Name of shird of party chould be inserted here. The officer who actually winted the station should sign his name at the end of the treavery note.

North—One of those forms must be used for every similar reserved.

> 330 15' 1110 45'

## HORIZONTAL CONTROL DATA

Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM

QUAD 331113 STATION 1058,1059 ARIZ LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

## ADJUSTED HORIZONTAL CONTROL DATA

NAME OF STATION: MESA MUNICIPAL WATER TANK NO 2

YEAR: 1963

Arizona

LOCALITY: Arizona Hwy. Survey, Papago Freeway

Third -ORDER Triangulation SOURCE: G-13304

FIELD SKETCH: Ariz. 50

GRID DATA	COORDINATES (Feet)	PLANE AZIMUTH FOR Sel ANGLE	MARK	
STATE: APIZ. ZONE: C CODE: 0202	526,406.41 9 880,797.20	+ 0 02 52		
STATE: ZONE: CODE:	2 7			

	POSITION	SECONDS IN HETERS	ELEVATION
DATA	LATITUDE: 33° 25' 16"690 NORTH LONGITUDE: 111 49 48.435 WEST		METERS PEET
	TO STATION	GEODETIC AZIMUTH (From south)	DISTANCE (Motors)
IMA. GRIN	STATION COMPUTED FROM: D, BARK, BALZ, LEHI, VAL VISTA	F AT THE STATE OF	

U.S. DEPARTMENT OF COMMERCE - COAST AND GRUNTIC SURVEY

## DESCRIPTION OF TRIANGULATION INTERSECTION STATION

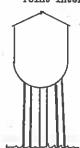
Name of Station: Hesa, Municipal Water Tank No. 2

CHIEF OF PARTY: C.A. Annis YEAR: 1963 STATE: Arisons

County: Maricopa

Description, including aketch of object:

Station is located in the Rendezvous Park in the city of Mesa. Station is a metal water tank painted silver, is supported by 6 legs, is approximately 140 feet high and has a ball on top. Point intersected was top and center.



ADJUSTED HORIZONTAL CONTROL DATA

NAME OF STATION MESA MUNICIPAL WATER TANK NO 3

YEAR: 1963

STATE: AFIZONS

LOCALITY: Arizona Hwy. Survey, Papago Freeway

Third -ORDER Triangulation SOURCE: G-13304 FIELD SKETCHAriz. 50

GRID DATA	COORDINATES (Feet)	PLANE AZIMUTH (KOR Ja) ANGLE	MARK
STATE APIZ. ZONE: C CODE: 0202	531,264,38 7 875,619.06	+ 0 03 23	
STATE: ZONE: COGE:	x y		

GEODETIC		POSITION		SECONDS IN METERS		ELEVATION		
DATA	LATITUDE: LONGITUDE:	33°	241 48	25".411 51.177	HORTH			METER
	TO 8	HOITAT			3	GEODETIC AZIMU (From south)	TH	DISTANCE (Motors)
	STATION CO	MPUTED	FRO	Mz			+	

#### U.B. DEPARTMENT OF COMMERCE - COAST AND GEODETIC SCREEN

### DESCRIPTION OF TRIANGULATION INTERSECTION STATION

Mesa, Municipal Water Tank No. 3

CHEF OF PARTY: C.A. Annis

YEAR: 1963 STATE: Arizona

County: Haricopa

Description, including sketch of object:

Station is located at Belview Street and 4th Avenue in the city

The tank is a large cval flat new water tank painted silver, is supported by approximately 12 legs and is approximately 140 feet high. Point intersected was top and center.



Robert P. Konrady

## HORIZONTAL CONTROL DATA

Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM

QUAD 331113 STATION 1056,1057 ARIZ LATITUDE 33°Q0' TO 33°30' LONGITUDE 111°30' TO 112°G0' DIAGRAM NI 12-8 MESA

> 330151 1110 45'

ADJUSTED HORIZONTAL CONTROL DATA NAME OF STATION: MESA MUNICIPAL WATER TANK NO 1

YEAR: 1963

STATE: Arizona

LOCALITY: Arizona Hwy. Survey, Papago Freeway

Third -ORDER Triangulation source G-13304

FIELD SKETCH: APIZ. 50

GRID DATA	COORDINATES (Feet)	PLANE AZIMUTH ROR da) ANGLE	MARK
STATE: APIZ. ZONE: C CODE: 0202	526,405.87 9 880,616.27	+ 0 02 52	
STATE: ZONE: CODE:	± 7	•	

1750		Pos	HOITE		SECONDS IN METERS	ELEVATION
DATA	LATITUDE: LONGITUDE:	33° 111	25† 49	14,900 \ HORTH 48.444 \ WEST		MET FEE
	70 1	TATION			GEODETIC AZIMUTI	H DISTANCE (Molore)
DIA, ORD	STATION CO	MPUTED LZ, VA				-

U.S. DEPARTMENT OF COMMERCE - COAST AND GEODETIC SURVEY

#### DESCRIPTION OF TRIANGULATION INTERSECTION STATION

Name or Station: Mesa, Minicipal Water Tank No. 1

C.A. Annis YEAR: 1963 STATE: Arizona County: Maricopa CHIEF OF PARTY:

Description, including sketch of object:

Station is located in the Rendezvous Park in the city of Mesa. Station is a metal water tank painted silver, is supported by 4 legs, is approximately 140 feet high and has a ball on top. Point intersected was top and center.



1967

Described by Robert Konrady

## ADJUSTED HORIZONTAL CONTROL DATA

HAME OF STATION: TEMPE SALT RIVER PROJECT RADIO MAST

YEAR: 1963

STATE: APIZODA

LOCALITY: Arizona Hwy. Survey, Papago Freeway

Third-onces Triangulation source: G-13304

FIELD SKETCH: Ar1z. 50

GRID DATA	COORDINATES (Feet)	PLANE AZIMUTH HOR Sal ANGLE	MARK
STATE APIZ. ZONE: C CODE: 0202	2 492,876.64 7 888,783.24	- 0 00 46	
STATE: ZONE: CODE:	z Y		254

	POSTION	SECONDS IN METERS	ELEVATION
DATA	LATITUDE: 33° 26' 35"809 NORTH LONGITUDE: 111 56 24.068 WEST		METER:
TO STATION		GEODETIC AZIMUTH (From south)	DISTANCE (Motors)
HUMM, STUA	STATION COMPUTED FROM: LTT, PAPAGO, GUN, HAYDEN, BARK, E BUTTE * (* Ariz. 51)		

Porm 325b (11-0-85)

U.S. DEPARTMENT OF COMMERCE - COAST AND GEODETIC SURVEY

## DESCRIPTION OF TRIANGULATION INTERSECTION STATION

NAME OF STATION: Tempe, Salt River Project Radio Hast

CHEF OF PARTY: C.A. Annis

YEAR: 1963 STATE: Arizona

COUNTY: Paricopa

Description, including sketch of object:

The station is located about 1 1/2 miles north of Tempe and about 1/2 mile east of

U.S. Highway 80 and89 in Tempe Park.

To reach the station from the post office in Tempe(5th street and Hill Ave.), go north on U.S. Highway 80 and 89(Hill Ave.) for 0.8 mile to stop light, continue north for 0.1 mile to a side road right, turn right, go east for 0.3 mile to Salt River Project building and station.

Station, a steel radio mast painted red and white with four reflectors (one large, three small), red light on top and 200 feet in height.
Point intersected, red light on top.

USCOMM-ESSA-ASHEVILLE

JULY 1966

HILLUINA

U. S. DEPARTMENT OF COMMERCE ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION COAST AND GEODETIC SURVEY

330 151 1110 45'

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM

QUAD 331113 STATION 1054,1055 ARIZ LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

B

#### ADJUSTED HORIZONTAL CONTROL DATA

NAME OF STATION: SCOTTSDALE MOTOROLA WATER TANK

YEAR: 1963

STATE: Arizona

LOCALITY: Arizona Hwy. Survey, Papago Freeway

Third -ORDER Triangulation SOURCE: 0-13304

FIELD SKETCH: Ar1z. 50

GRID DATA	COORDINATES (Feet)	PLANE AZIMUTH	MARK
STATE: Ariz. SONE: C CODE: 0202	504,096.59 895,987.99	+ 0 00 27	
STATE: ZONE: CODE:	x y		

	POSITION	SECONDS IN METERS	ELEVATION
DATA	LATITUDE: 33° 27° 47"102 HORTH LONGITUDE: 111 54 11.642 WEST		METER! FEET
	TO STATION	GEODETIC AZIMUTH (From south)	DISTANCE (Motore)
iitional o	STATION COMPUTED FROM: E, SCOTT, ROLA, GRIND with ad- bservations from BATON, GUN, UAW PEAK, LEHI, FINCH, BARK		===

Fore \$25h (11-8-82)

U. S. DEPARTMENT OF COMMERCE - COAST AND GEODETIC SURVEY

#### DESCRIPTION OF TRIANGULATION INTERSECTION STATION

NAME OF STATION: Scottsdale, Motorola, Water Tank

CHIEF OF PARTY: C. A. Annis YEAR: 1963 STATE: Arizona County: Haricopa

Description, including sketch of object:

Station is located in the southeast section of Scottsdale and in the parking area of the Motorola Corporation.

To reach from Scottadale Road and East Mc Dowell Road in Scottadale, go east on East Hc Dowell Read for 1.2 miles to Motorola Corporation and station on right.

Station is a round metal tank atop a cylindrical column, has a antena and red light on top and is approximately 110 feet high. Point intersected was top and center of tank.



Described by Robert P. Konrady

ADJUSTED HORIZONTAL CONTROL DATA

HAME OF STATION: GOVERNOR HUNTS TOMB

YEAR: 1936. 1963

STATE: APIZODE

LOCALITY: Arizona Hwy. Survey, Papago Freeway

(Papago Indian Reservation)
Third-onner Triangulation source: G-3083 FIELD SKETCH: A G-13304

FIELD SKETCH: AP1z. 14, 50

Conerr: Maricopa

GRID DATA	COORDINATES (Feet)	PLANE AZIMUTH HOR & ANGLE	MARK
STATE: APIZ. ZONE: C CODE: 0202	; 491,762.84 ; 891,901.44	- 0 00 54	
STATE: ZONE: CODE:	х 7		

(Commercial Commercial		POSITION					ELEVATION
GEODETIC	LATITUDE: LONGITUDE:	33°	27 I 56	06".660 37.223	HORTH WEST		METER: FEET
TO STATION					GEODETIC AZIMUT (From south)	H DISTANCE (Meters)	
EAM, GOLP	STATION CO		D FR	041:			

Governor Hunt's Tomb, center (Maricopa County, J. Bowie, Jr., 1936). TRIANGULATION STATION RECOVERY

Name or Station Covernor Hunt's Tomb, center STATE: ATIZONA Established BH: J Bowle Jr YEAR: 1936 RECOVERSE BY: Lewis A McArthur

Lосацит: Темре YEAR: 1941, October

Detailed statement as to the fitness of the original description:

field visit.

Following submitted in Oct 1941 as result of

Governor Hunt's Tomb, center (Maricopa County, J.Bowie, Jr., 1936; 1941) .--Intersection station is apex of prominent pyramidal tomb of Governor C. I.P. Hunt, which is faced with white tiles and is surrounded by iron fence. Tomb is about 15 feet square and apex is very sharp point. Station is about 7.5 miles east of Phoenix and 2 miles northwest of Tempe, on ridge, in natural desert parkland. Park is on northeast side of U.S.Highway 60-70-80, and winding gravel road leads north from highest about 1 mile through park to tomb. Tomb easily visible from highway and is well-known landmark.

(L.W.Q.,1953) -- The station was recovered in good condition, Description adequate.

(C.A.A., 1963) -- Station recovered as described.

(11-0-55)

RECOVERY NOTE, THANGULATION STATION

R

NAME OF STATION: COVERIOR HUNTS TOUR ESTABLISHED BY J.B.J. YEAR: 1936 STATE: Arizona RECOVERED BY E. Pursel Jr. Year: 1967 County: Maricopa

Detailed statement as to the fitness of the original description; including marks found, stampings, changes made, and other pertinent facts: This station was recovered as described.



JULY 1966

U.S. DEPARTMENT OF COMMERCE ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION COAST AND GEODETIC SURVEY REVISED MAY 1970

## HORIZONTAL CONTROL DATA

Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM ARIZONA 168

QUAD 331113 STATION 1052,1053 LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00' DIAGRAM NI 12-8 MESA

### ADJUSTED HORIZONTAL CONTROL DATA

HAME OF STATION, PHOENIX CUDAHY PACKING CO WATER TANK

YEAR: 1963

STATE: Arizona

LOCALITY: Arizona Hwy. Survey, Papago Freeway

Third -onces Triangulation source: G-13304

FIELD SKETCH: AP1Z. 50

GRID DATA	COORDINATES (Feet)	PLANE AZIMUTH SIOR DEL ANGLE	MARK
STATE: Ariz. ZONE: C COOE: 0202	* 480,352.83 y 891,208.67	- 0 02 08	
STATE: ZONE: CODE:	x Y		

	POSITION	N SECONDS IN METERS		
GEODETIC	LATITUDE: 33° 26' 59"755 NORTH LONGITUDE: 111 58 51.890 WEST		METER: FEET	
	TO STATION	GEODETIC AZIMUTH (From south)	DISTANCE (Motory)	
	STATION COMPUTED FROM: , STUART, GRAM, GANZ with addition- tions from LEE, DALL, PAPAGO		V 150	

(11-8-85)

### DESCRIPTION OF TRIANGULATION INTERSECTION STATION

NAME OF STATION: Phoenix, Cudshy Packing Co., Water Tenk

CHIEF OF PARTY: C. A. Annis

YEAR: 1965 STATE: Arizone COUNTY: Harlespa

Description, including sketch of object:

The station is located in the eastern section of Phoenix, about 0.2 mile west of 48 th. Street and about 100 yards north of Bast Washington Street at the Cudahy Packing

It is a steel structure supported by four legs, painted silver and approximately 125 feet high.

The point intersected was the ball on top .

411-B-851

RECOVERY NOTE, TRIANGULATION STATION

R

NAME OF STATION: PHOEDIX CUDARY PACKING CO MATER TANK YEAR: 1963 STATE: Arizona ESTABLISHED BY: C.A.A. RECOVERED BY . E. Pursel Jr. YEAR 1967 COUNTY Maricopa

Detailed statement as to the fitness of the original description; including marks found, stampings, changes made, and other pertinent facts: This station was recovered as described. The tank has a large red square painted on the east and the west sides with Cudaby in large white letters and BAR S painted in black.

ADJUSTED HORIZONTAL CONTROL DATA

330151 1110 451 YEAR 1963

HAME OF STATION: PHOENIX RADIO STATION KOOL SOUTH MAST

STATE: Arizona

LOCALITY Arizona Hwy. Survey, Papago Freeway

Third -ORDER Triangulation Source: 0-13304

FIELD SKETCHI APIZ. 50

GRID DATA	COORDINATES (Feet)	PLANE AZIMUTH	MARK
ETATE: APIZ. ZONE: C CODE: 0202	* 479,044.46 9 898,507.98	- 0 02 16	
STATE: ZONE: CODE:	z y		

		PC	SITIO	4		SECONDS IN METERS	ELEVATION
DATA	LATITUDE: 33° 28° 11.970 NORTH LONGITUDE: 111 59 07.389 WEST						METER FEET
TO STATION					GEODETIC AZIMUTH (From south)	DISTANCE (Meters)	
PALM, DALL	STATION C						

#### DESCRIPTION OF TRIANGULATION INTERSECTION STATION

Phoenix, Radio Station KOOL, South Mast NAME OF STATION:

CHIEF OF PARTY: C.A. Annis YEAR: 1963 STATE: Arizona County, Haricopa

Description, including sketch of object:

Station is located in the east section of Phoenix, about 6 miles east-northeast of center of downtown business section of Phoenix and in the northeast corner of intersection of North With Street and East Palm Lane.

Station is the south one of four radio masts, is approximately 260 feet high, painted red and white, has dark red paint on top of tower and has a red light on top.

Point intersected was top and center.

1144-4-490

RECOVERY NOTE, TRIANGULATION STATION

R

NAME OF STATION: PROCESSE RADIO STATION KOOL SOUTH MAST ESTABLISHED BY C.A.A. Ymam: 1963 Brave: Arizona RECOVERED BY . E. Pursel, Jr. YEAR: 1967 County: Karicopa

Detailed statement as to the Sinces of the original description; including marks found, stampings, changes made, and other pertinent facts:

This station could not be recovered. These four towers were removed during the last half of 1966. The bases of the two southwesterly towers are still in place.

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM

QUAD 331113 STATION 1050,1051 ARIZ LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°00 DIAGRAM NI 12-8 MESA

33015' 111045

## ADJUSTED HORIZONTAL CONTROL DATA

NAME OF STATION: RNG PHOENIX TX

YEAR: 1962, 1963

STATE: Arizona

LOCALITY: Arizona Hwy. Survey, Papago Freeway (Ehrenberg to Phoenix to Casa Grande)

Third -once Triangulation : source: 0-12917

FIELD SKETCH: Ariz. 49-II

0-13304

PLANE AZIMUTH GRID DATA COORDINATES (Feet) MARK STATE APIZ. 481,822.48 ZONE: C 886,569.86 - 0 01 58 CODE: 0202 STATE: ZONE: CODE:

GEODETIC	POSITION	SECONDS IN METERS	ELEVATION
DATA	LATITUDE: 33° 26' 13'865 NORTH LONGITUDE: 111 58 34.512 WEST	7-E-E	METER: FEET
	TO STATION	GEODETIC AZIMUTH	DISTANCE (Melore)
TILSON, HI	STATION COMPUTED FROM: LITON, COURT HOUSE, GANZ, BELL		94-

U. S. DEPARTMENT OF CONSERCE - COAST AND GEOGREEC SURVEY

### DESCRIPTION OF TRIANGULATION INTERSECTION STATION

NAME OF STATION: FNG. Phoenix TX

CHIRD OF PARTY: C. A. Annis

YEAR: 1962 STATE: Arizona

County: Haricopa

Description, including sketch of object: The station is located in the cast edge of Phoenix, about 2 miles east of the Bky Harbor Municipal Airport and 1/2 mile south of the intersection of East Washington Street and South 48 th. Street.

Station is a steel structure painted red and white and is approximately 90 feet high.

The point intersected was the top and center of mast. Station is the center one of five masts.

ADJUSTED HORIZONTAL CONTROL DATA

HAME OF STATION: PHOENIX PRODUCERS COTTON OIL CO WATER TANK YEAR: 1962 \*, 1963

STATE: Arizona

LOCALITY: Arizona Hwy. Survey, Papago Freeway

Third-order Triangulation source: G-13304

FIELD SKETCH: AP12. 50

GRID DATA	COORDINATES (Foot)	PLANE AZIMUTH HOR Sal ANGLE	MARK
STATE: APIZ. ZONE: C CODE: 0202	* 480,658.35 y 890,264.33	- 0 02 06	
STATE: ZONE: CODE:	y U		×

GEODETIC		POSI	тюн			SECONDS IN METERS		ELEVATION
DATA	LATITUDE: LONG(TUDE:	33° 111	261 58	50".413 48.277	NORTH WEST	16		METER
TO STATION				GEODETIC AZIM		DISTANCE (Motors)		
DALL, GOLF	STATION CO	MPUTED GRAM,	FROI GAN	M: Z, (* Aı	iz. 4	-II)	E	

U.S. DEPARTMENT OF COMMERCE - COAST AND GEORETIC SURVEY

### DESCRIPTION OF TRIANGULATION INTERSECTION STATION

Name of Station: Phoenix, Producers Cotton Oil Co., Mater Tank

CHIEF OF PARTY: C. A. Annis

YEAR: 1965 STATE: Arizona

County: Maricopa

Description, including sketch of object:

The station is located in the eastern section of Phoenix, along the south side of East Washington Street, 0.2 mile west of 48 th. Street at the Producers Oil Company

It is a steel structure supported by four legs, painted silver and approximately 125 feet high.

The point intersected was the ball on top.

NAME OF STATION: CHANDLER OLD MUNICIPAL WATER TANK

Third-onces Triangulation source: 0-3058

COORDINATES (Foot)

524,271.39

836,784.59

POSITION

# HORIZONTAL CONTROL DATA

by the Coast and Geodetic Survey NORTH AMERICAN 1927 DATUM

YEAR: 1935, 1962

ELEVATION

DISTANCE

PEST

FIELD SKETCH: Ariz. 9, 49-II

QUAD 331113 STATION 1048.1049 ARIZ LATITUDE 33°00' TO 33°30' LONGITUDE 111°30' TO 112°30' DIAGRAM NI 12-8 MESA

ADJUSTED HORIZONTAL CONTROL DATA NAME OF STATION: CHANDLER NEW MUNICIPAL WATER TANK

YEAR: 1962

STATE APIZODA LOCALITY: Arizona Hwy. Survey, Papago Freeway (Ehrenberg to Phoenix to Casa Grande) Third -onces Triangulation \ source: 0-12917 FIELD EXETCH: APIZ. 49-II 0-13304

GRID DATA	COORDINATES (Feet)	PLANE AZIMUTH BOR Agl ANGLE	MARIC
STATE: AP12. ZONE: C CODE: 0202	2 524,249.51 9 836,709.94	+ 0 02 37	-1
STATE: IONE:	7		

GEODETIC		F F	POSITH	DN		SECONDS IN METERS ELEVATE		
DATA	LATITUDE: LONGITUDE:	111 111	18† 50	00"479 14.281	NORTH WEST		METER FEET	
TO STATION				GEODETIC AZIMUTI (From coult)	H DISTANCE (Motors)			
	STATION O	OMPUTE	ZD F	ROM:			(-445)	

U.S. DEPARTMENT OF COMMERCE - COAST AND GEODETIC SURVEY

## DESCRIPTION OF TRIANGULATION INTERSECTION STATION

Chandler, Municipal Water Tank

CHIEF OF PARTY: C.A. Annis YEAR: 1962 STATE: Arizona County: Maricona

Description, including sketch of object:

Station is located just east of the business section of Chandler. Station is a large oval shaped water tank, is painted silver, is supported by 8 legs and is approximately 125 high. This tank is the newer one of two and is the south one. Point intersected was top and center of tank.

Described by R.P. Konsales

USCOMM-ESSA-ASHEVILLE

1967 JAN

ZONE: C CODE: 0202 STATE: ZONE: CODE: GEODETIC

Recovered By:

CHIEF OF PARTY:

STATE: Arizona

GRID DATA

STATE: AP1Z.

Chandler, water tank (Pinal County, E. B. Latham, 1935) U.S. DEPARTMENT OF COMMERCE - COAST AND GEODETIC SURVEY RECOVERY EXECUTIVE OF TRIANGULATION INTERSECTION STATION

LATITUDE

LONGITUDE

Name of Station: Chandler, Municipal Water Tank 1935 C.A. Annis

TO STATION

STATION COMPUTED FROM: GOODYEAR 2, BONE, JACKSON, PORT, HIGH, ANGELO

YEAR: 1962 STATE: Arizona

ADJUSTED HORIZONTAL CONTROL DATA

PLANE AZIMUTH

+ 0 02 37

33° 18' 01"218 NORTH

111 50 14.022 WEST

LOCALITY: Arizona Hwy. Survey, Papago Freeway

0-12917, 0-13304

(Ajo to Tucson to Phoenix to Winkelman)

SECONDS IN METERS

GEODETIC AZIMUTH

Courty Maricoon

Description, including sketch of object:

No previous description. Station is located just east of the business section of Chandler. Station is a silver water tank, is supported by h logs and is approximately 125 feet high. This tank is the older one of two and is the north one.

Point intersected was top and center of tank.