OBSTRUCTION DATA SHEET

ODS 6513
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TUCSON, ARIZONA

DIGITIZED FROM

OC 6513
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OBSTRUCTION DATA SHEET

The Obstruction Data Sheet (ODS) provides digital obstruction and runway data for use in aircraft arrival and departure planning. This information has been obtained using field survey and photogrammetric methods by the Photogrammetry Branch of the National Ocean Service in accordance with Federal Aviation Regulations Part 77 (FAR-77), "Objects Affecting Navigable Airspace" and FAA Nr. 405, "Specifications - Airport Obstruction Chart and Related Products."

The ODS is a derivative of the Airport Obstruction Chart (OC). The source OC is indicated on the ODS cover. All objects, both obstructing and nonobstructing, that carry an elevation on the OC are listed in the ODS. The ODS (and OC) depict a representation of objects that existed at the time of the OC field survey.

ODS information is arranged as follows:

1. Objects located in FAR-77 approach (including supplemental approaches if present) or primary areas are listed with the associated runway (reference runway). For example, all objects in the Runway 9R approach or primary are listed with Runway 9R. Distances to these objects are computed from both the physical end and threshold of Runway 9R. Objects in the Runway 27L approach or primary are listed with Runway 27L. (Objects in the common 9R/27L primary area are listed with both runways.)

2. All objects not included in "1" above are listed with the Airport Reference Point (ARP).

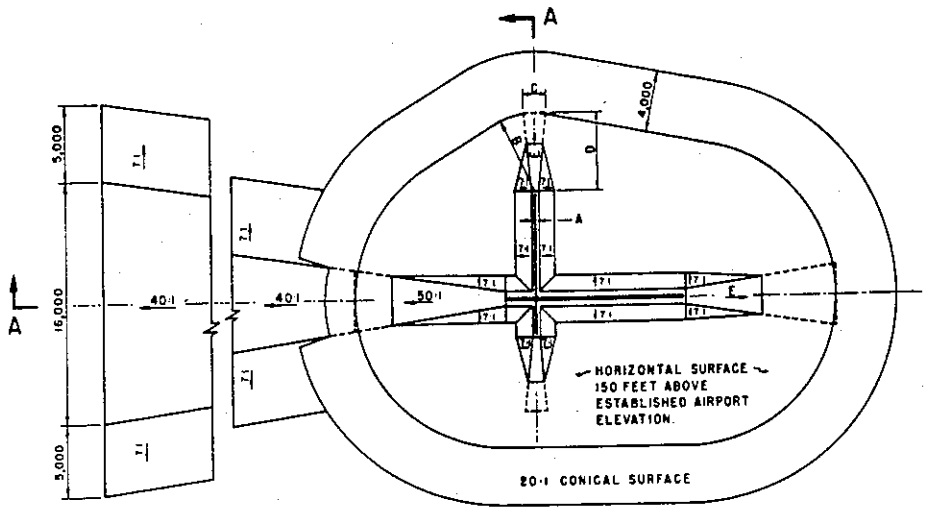
3. Runway configuration and runway lengths, widths, and elevations are presented on the ODS last page.

The FAR-77 imaginary approach surfaces for which the obstruction surveys were performed are coded in the ODS as follows (see footnote 2 on page 3):

A(V) ..... Utility runway - visual approach only
A(NP) .... Utility runway - nonprecision instrument approach
B(V) ..... Nonutility runway - visual approach only
C .... Nonutility runway - nonprecision instrument approach with visibility minimums greater than 3/4 mile
D .... Nonutility runway - nonprecision instrument approach with visibility minimums as low as 3/4 mile
PIR ..... Precision instrument runway
SUPLC ... Supplemental C underlying a B(V)

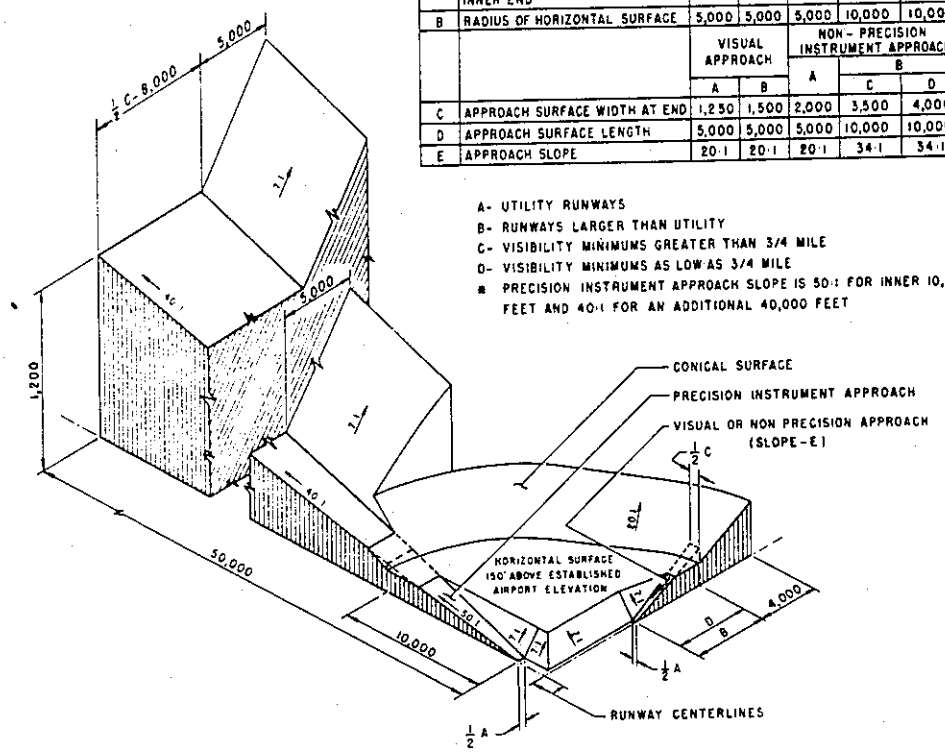
FAR-77 imaginary surface dimensions are defined on page 2 of this report.

Primary surface width is determined by the widest approach at the two approach/primary interfaces for that runway.



DIM	ITEM	DIMENSIONAL STANDARDS (FEET)					
		VISUAL RUNWAY		NON-PRECISION INSTRUMENT RUNWAY			PRECISION INSTRUMENT RUNWAY
		A	B	A	B		
					C	D	
A	WIDTH OF PRIMARY SURFACE AND APPROACH SURFACE WIDTH AT INNER END	250	500	500	500	1,000	1,000
B	RADIUS OF HORIZONTAL SURFACE	5,000	5,000	5,000	10,000	10,000	10,000
		VISUAL APPROACH		NON-PRECISION INSTRUMENT APPROACH			PRECISION INSTRUMENT APPROACH
		A	B	A	B		
					C	D	
C	APPROACH SURFACE WIDTH AT END	1,250	1,500	2,000	3,500	4,000	16,000
D	APPROACH SURFACE LENGTH	5,000	5,000	5,000	10,000	10,000	*
E	APPROACH SLOPE	20:1	20:1	20:1	34:1	34:1	*

A- UTILITY RUNWAYS
B- RUNWAYS LARGER THAN UTILITY
C- VISIBILITY MINIMUMS GREATER THAN 3/4 MILE
D- VISIBILITY MINIMUMS AS LOW AS 3/4 MILE
* PRECISION INSTRUMENT APPROACH SLOPE IS 50:1 FOR INNER 10,000 FEET AND 40:1 FOR AN ADDITIONAL 40,000 FEET



ISOMETRIC VIEW OF SECTION A-A

FAR-77 CIVIL AIRPORT IMAGINARY SURFACES

ANNOTATION OF ODS DATA FORMAT

OC XXXX

AIRPORT ELEVATION XXXX

X[1] X[2] XXXX/XXXX[3] XXXXXX.XXX[4] XXXXXXX.XXX[4] XXXXXXX[5] XXXX/XXXX[6] XXXXXX.XXX[7] XXXXXXX.XXX[7]

OBJECT	LAT	LONG	A[8]	ELEV[9]	AGL[10]	HAR[11]	HAT[11]	HAA[11]	DEND[12]	DTHR[12]	DCLN[12]	PNTR[13]
XXXXXXXXXXX	XXXXXX.XXX	XXXXXXX.XXX	XX	XXXX	XXXX	XXX	XXX	XXX	XXXXX	XXXXX	XXXX	XXXX
XXXXXXXXXXX	XXXXXX.XXX	XXXXXXX.XXX	XX	XXXX	XXXX	XXX	XXX	XXX	XXXXX	XXXXX	XXXX	XXXX

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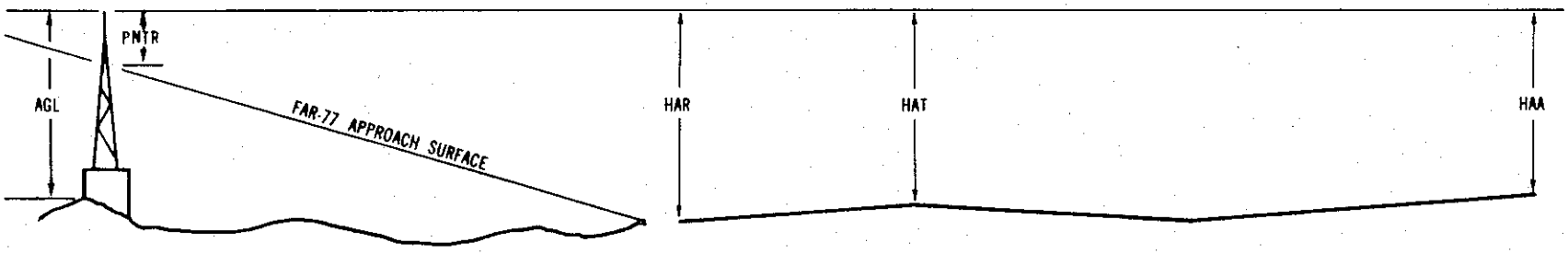

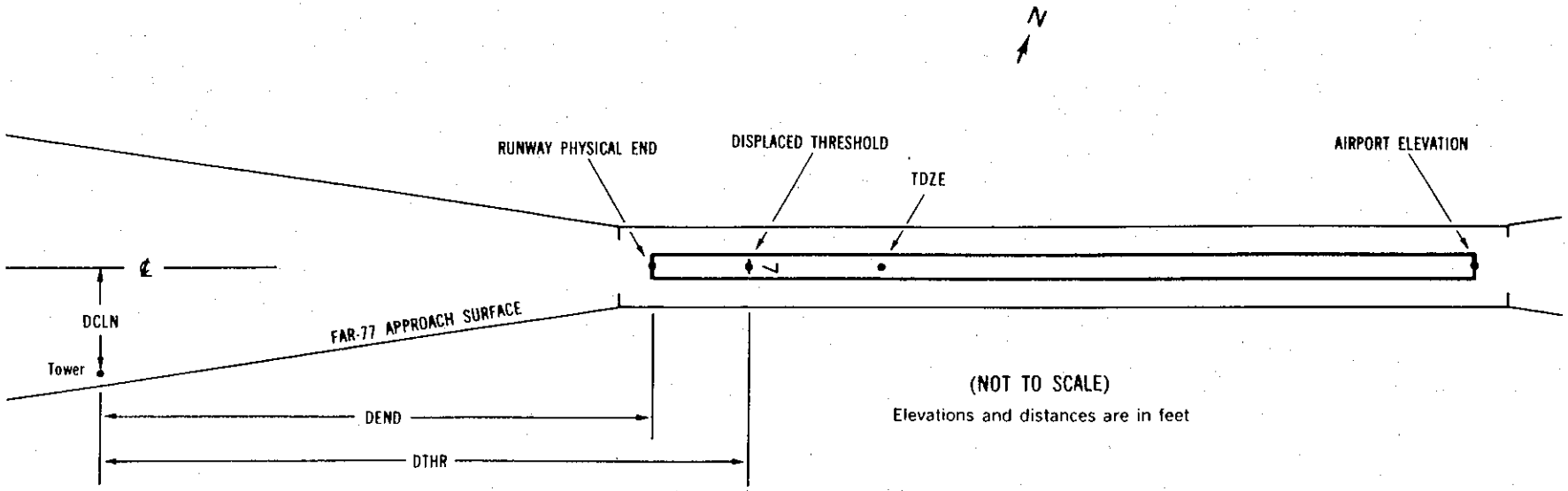

(NOT TO SCALE)

Elevations and distances are in feet

EXPLANATION OF FOOTNOTES

[1] Data block identifier. If a runway number is entered (reference runway), this data block will contain data pertinent to the reference runway and to objects in the FAR-77 approach and primary area of the reference runway. If ARP is entered, this data block will contain the ARP position and data relative to all objects not in an FAR-77 approach or primary area.

[2] For the reference runway, the lowest FAR-77 approach surface for which an obstruction survey was performed. (More than one surface may be surveyed.)

[3] Reference runway approach physical end elevation/touchdown zone elevation

[4] Latitude and longitude of reference runway approach physical end

[5] Reference runway geodetic azimuth reckoned clockwise from south

[6] Reference runway displaced threshold elevation/touchdown zone elevation

[7] Latitude and longitude of reference runway displaced threshold

[8] Accuracy Code:

Horizontal	Vertical
1 = 20	A = 2
2 = 40	B = 5
	C = 20

[9] Mean Sea Level (MSL) elevation at top of object. This value includes 15 feet added to noninterstate roads, 17 feet added to interstate roads, and 23 feet added to railroad tracks.

[10] Height above ground level (AGL). AGLs are provided only for those objects appearing on the OC that are equal to, or greater than, 200 feet AGL. AGL accuracy is ±10 feet.

[11] HAA - Height above airport
HAR - Height above reference runway approach physical end
HAT - Height above reference runway touchdown zone elevation

[12] DEND - Distance along reference runway centerline from point perpendicular to object to reference runway approach physical end
DTHR - Distance along reference runway centerline from point perpendicular to object to reference runway threshold
DCLN - Distance left (L) or right (R) of reference runway centerline as observed facing forward in a landing aircraft.

A negative value for DEND or DTHR indicates object is in primary area on roll-out side of zero distance point.

[13] PNTR - Penetration of indicated FAR-77 approach or primary surface (see footnote 2).

OC6513

AIRPORT ELEVATION 2415

6 PIR 2396/2400 320824.264N 1111043.134W 2501854

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
BUSH	320846.55	1110942.54	1A	2408		12	8	-7	-5665		366L	8
GROUND	320839.04	1110942.04	1A	2402		6	2	-13	-5450		363R	2
BUSH	320845.47	1110945.11	1A	2410		14	10	-5	-5419		338L	10
BUSH	320843.71	1110947.96	1A	2411		15	11	-4	-5129		253L	12
BUSH	320837.17	1110946.60	1A	2409		13	9	-6	-5016		410R	10
WINDSOCK	320838.93	1110948.20	1A	2416		20	16	1	-4947		196R	17
BUSH	320842.97	1110952.07	1A	2408		12	8	-7	-4771		301L	10
BUSH	320835.02	1110950.48	1A	2417		21	17	2	-4629		501R	19
BUSH	320844.00	1110955.17	1A	2413		17	13	-2	-4555		489L	15
FENCE POST	320834.19	1110955.57	1A	2404		8	4	-11	-4189		433R	7
GROUND	320834.38	1110959.76	1A	2400		4	0	-15	-3856		294R	3
BUSH	320837.87	1111014.93	1A	2402		6	2	-13	-2746		478L	5
GROUND	320829.19	1111011.90	1A	2401		5	1	-14	-2697		436R	4
BUSH	320836.63	1111019.30	1A	2406		10	6	-9	-2351		486L	9
OL ON LIGHTED WINDSOCK	320829.01	1111020.58	1A	2428		32	28	13	-1987		202R	30
BUSH	320834.20	1111027.53	1A	2408		12	8	-7	-1602		493L	8
OL ON GLIDE SLOPE	320829.84	1111034.26	1A	2426		30	26	11	-908		274L	28
GROUND	320821.61	1111034.79	1A	2401		5	1	-14	-585		494R	5
GROUND	320821.92	1111040.57	1A	2399		3	-1	-16	-128		297R	3
BUSH	320827.40	1111047.24	1A	2402		6	2	-13	226		417L	5
WINDSOCK	320825.65	1111047.17	1A	2408		12	8	-7	280		249L	10
BUSH	320819.03	1111044.42	1A	2410		14	10	-5	282		461R	12
BUSH	320820.74	1111048.57	1A	2408		12	8	-7	560		178R	5
BUSH	320824.76	1111051.62	1A	2406		10	6	-9	670		293L	1
BUSH	320817.99	1111050.61	1A	2417		21	17	2	819		380R	9
BUSH	320823.20	1111056.62	1A	2412		16	12	-3	1128		289L	-3

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AIRPORT ELEVATION 2415

24 A(V) 2400/2400 320842.591N 1110942.911W 0701926

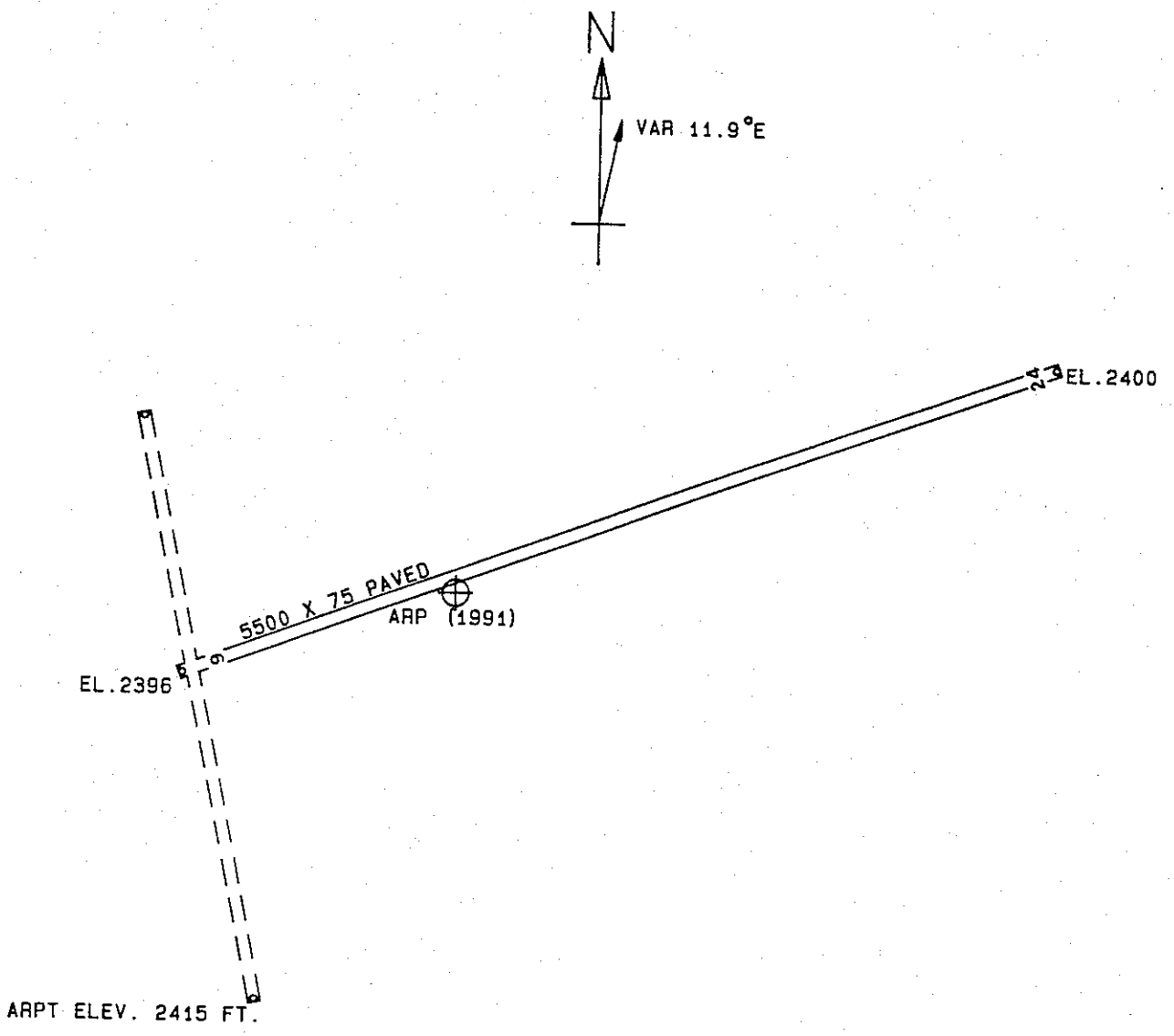
OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
GROUND	320821.92	1111040.57	1A	2399		-1	-1	-16	-5371		297L	3
GROUND	320821.61	1111034.79	1A	2401		1	1	-14	-4915		494L	5
OL ON GLIDE SLOPE	320829.84	1111034.26	1A	2426		26	26	11	-4592		274R	28
BUSH	320834.20	1111027.53	1A	2408		8	8	-7	-3898		493R	8
OL ON LIGHTED WINDSOCK	320829.01	1111020.58	1A	2428		28	28	13	-3512		202L	30
BUSH	320836.63	1111019.30	1A	2406		6	6	-9	-3149		486R	9
GROUND	320829.19	1111011.90	1A	2401		1	1	-14	-2803		436L	4
BUSH	320837.87	1111014.93	1A	2402		2	2	-13	-2753		478R	5
GROUND	320834.38	1110959.76	1A	2400		0	0	-15	-1643		294L	3
FENCE POST	320834.19	1110955.57	1A	2404		4	4	-11	-1311		433L	7
BUSH	320844.00	1110955.17	1A	2413		13	13	-2	-944		489R	15
BUSH	320835.02	1110950.48	1A	2417		17	17	2	-870		501L	19
BUSH	320842.97	1110952.07	1A	2408		8	8	-7	-728		301R	10
WINDSOCK	320838.93	1110948.20	1A	2416		16	16	1	-553		196L	17
BUSH	320837.17	1110946.60	1A	2409		9	9	-6	-483		410L	10
BUSH	320843.71	1110947.96	1A	2411		11	11	-4	-371		253R	12
BUSH	320845.47	1110945.11	1A	2410		10	10	-5	-80		338R	10
GROUND	320839.04	1110942.04	1A	2402		2	2	-13	-50		363L	2
BUSH	320846.55	1110942.54	1A	2408		8	8	-7	165		366R	8
BUSH	320840.96	1110938.14	1A	2412		12	12	-3	330		293L	8
BUSH	320839.80	1110936.54	1A	2419		19	19	4	421		450L	13
BUSH	320847.11	1110939.57	1A	2410		10	10	-5	424		333R	3
BUSH	320842.03	1110932.87	1A	2428		28	28	13	794		344L	11
ANTENNA ON BUILDING	320845.25	1110925.46	1A	2418		18	18	3	1503		252L	-20

OC6513

AIRPORT ELEVATION 2415

ARP 320829.055N 1111024.277W

OBJECT	LAT	LONG	A	ELEV	AGL	HAA	MAG BEARING	DISTANCE
ROD ON OL ANEMOMETER	320825.32	1111018.92	1A	2440		25	117 28	595
ANTENNA ON ATCT	320822.02	1111024.41	1A	2427		12	169 3	711
FLOODLIGHT	320819.25	1111024.31	1A	2464		49	168 16	990
FLOODLIGHT	320818.59	1111026.59	1A	2464		49	178 46	1076
BUSH	320839.90	1111010.16	1A	2404		-11	36 2	1635
WINDSOCK	320813.63	1111042.05	1A	2419		4	212 32	2183
OL ON AIRPORT BEACON	320807.57	1111009.15	1B	2477		62	137 11	2531
POLE	320826.99	1111058.99	1A	2422		7	254 6	2993
TREE	320826.35	1111101.32	1A	2434		19	253 12	3197
BUSH	320837.70	1110940.00	1A	2420		5	65 11	3906



TOUCHDOWN ZONE RUNWAY	ELEVATION
6	2400
24	2400

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TUCSON, ARIZONA

(NOT TO SCALE)