

OBSTRUCTION DATA SHEET

ODS 421
METCALF FIELD
TOLEDO, OHIO

DIGITIZED FROM

OC 421
SURVEYED OCTOBER 1993
8TH EDITION

HORIZONTAL DATUM NAD 83
VERTICAL DATUM NGVD 29



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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 No. 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 the OC depict a representation of objects that existed at the time of the OC field survey.

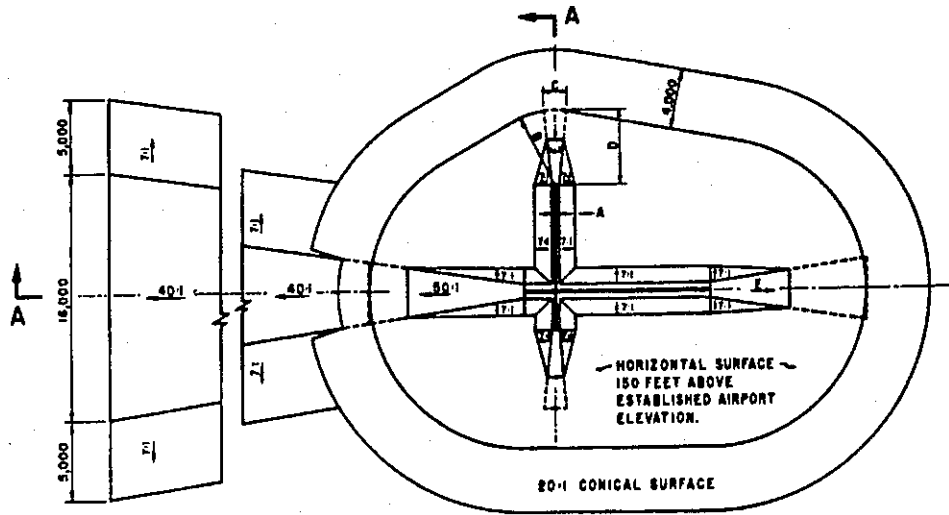
ODS information is arranged as follows:

1. Objects located in an FAR-77 approach or primary and listed with the associated runway (reference runway).
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:

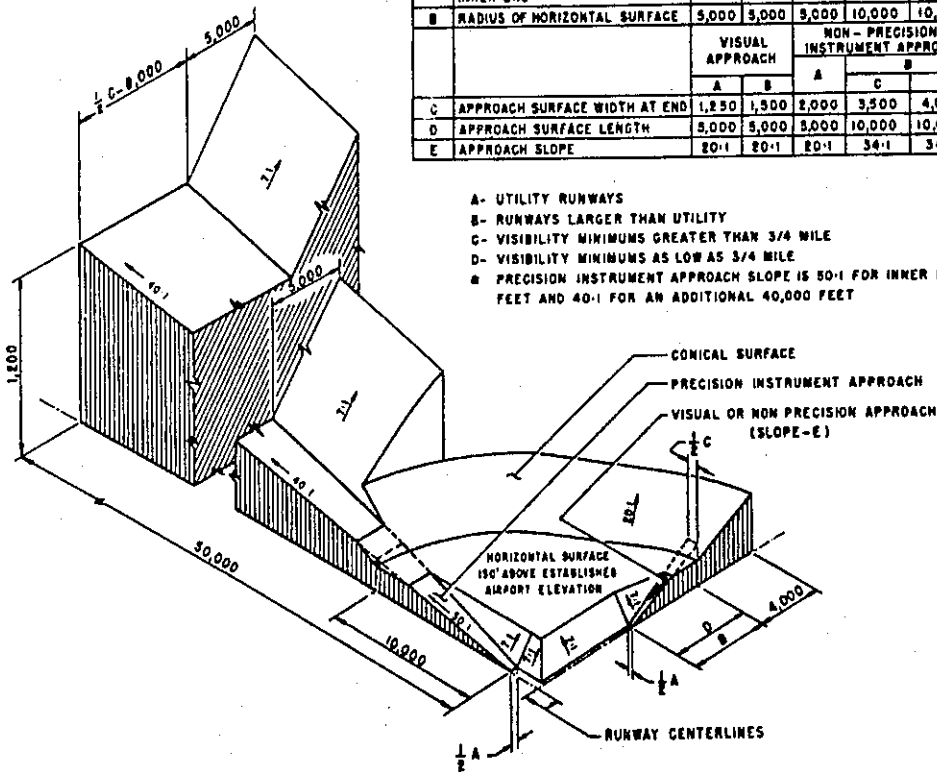
A(V) Utility runway - visual approach only
A(NP) Utility runway - nonprecision instrument approach
B(V) Nonutility runway - visual approach only
C Nonutility runway - nonprecision instrument
approach with visibility minimums greater than
3/4 mile
D Nonutility runway- nonprecision instrument approach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

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



DIM	ITEM	DIMENSIONAL STANDARDS (FEET)					
		VISUAL RUNWAY		NON-PRECISION INSTRUMENT RUNWAY		PRECISION INSTRUMENT RUNWAY	
		A	B	A	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	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

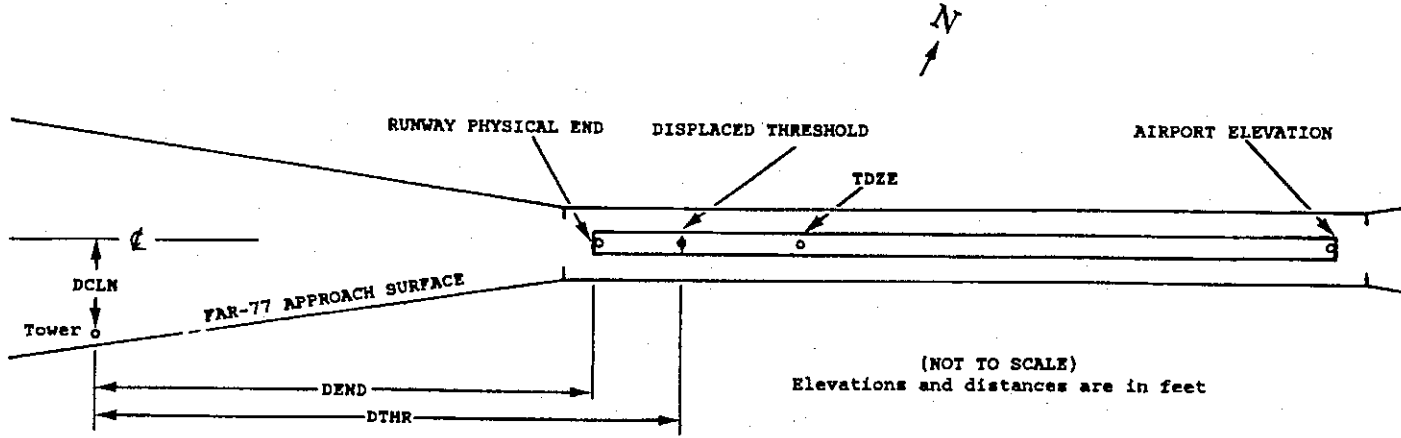
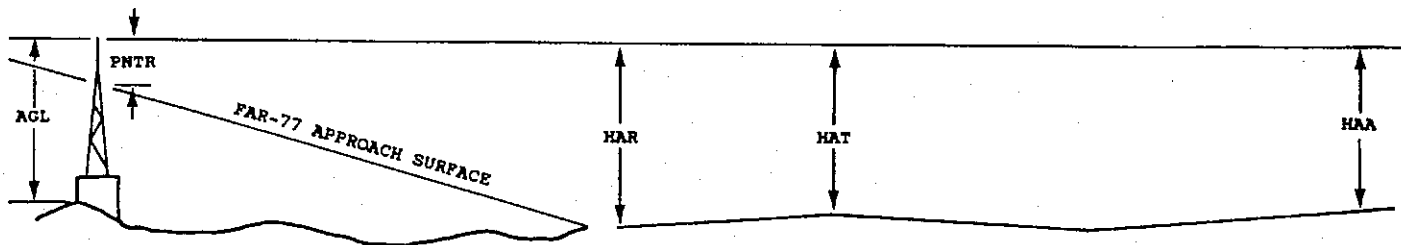
FAR-77 CIVIL AIRPORT
IMAGINARY SURFACES

ANNOTATION OF ODS DATA FORMAT

OC XXXX

AIRPORT ELEVATION XXXX

	1	2	3	4	4	5	6	7	7					
	X	X	XXXX/XXXX	XXXXXX.XXX	XXXXXXXX.XXX	XXXXXXX	XXXX/XXXX	XXXXXX.XXX	XXXXXXXX.XXX					
OBJECT		LAT		LONG		A ⁸ ELEV ⁹	AGL ¹⁰	HAR ¹¹	HAT ¹¹	HAA ¹¹	DEND ¹²	DTHR ¹²	DCLN ¹²	PNTR ¹³
XXXXXXXXXXXX		XXXXXX.XXX		XXXXXXXX.XXX		XX XXXX XXXX	XXX	XXX	XXX	XXXXX	XXXXX	XXXX	XXXX	
XXXXXXXXXXXX		XXXXXX.XXX		XXXXXXXX.XXX		XX XXXX XXXX	XXX	XXX	XXX	XXXXX	XXXXX	XXXX	XXXX	



(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 areas 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 Elevation at approach end of reference runway/touchdown zone elevation
- 4 Latitude and longitude at approach end of reference runway
- 5 Geodetic azimuth of reference runway reckoned from north
- 6 Elevation at reference runway displaced threshold/touchdown zone elevation
- 7 Latitude and longitude at reference runway displaced threshold
- 8 Accuracy codes: Horizontal (Ft.) Vertical (Ft.)
 1 = 20 A = 2
 2 = 40 B = 5
 C = 20
- 9 Elevation above mean sea level (MSL) 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). AGL's are provided only for manmade objects appearing on the OC and equal to or greater than 200 feet AGL. AGL accuracy is 10 feet.
- 11 HAA - Height above airport
 HAR - Height above approach end of reference runway
 HAT - Height above reference runway touchdown zone elevation
- 12 DEND - Distance along reference runway centerline from point nearest to object (perpendicular) to approach end of runway
 DTHR - Distance along reference runway centerline from point nearest to object (perpendicular) to displaced 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 that object is in primary on roll-out side of zero distance point.
- 13 PNTR - Penetration of indicated FAR-77 approach or primary surface (See footnote 2).

OC0421

AIRPORT ELEVATION 623

14 AV 621/ 622 413404.828 -832909.405 1340426.

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
POLE	413418.54	-832931.81	1A	668		47	46	45	2189		187R	-52

32 AV 622/ 622 413335.794 -832829.481 3140452.

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
FENCE	413333.99	-832824.36	1A	629		7	7	6	407		139R	-3
ROAD(N)	413333.50	-832823.45	1A	639		17	17	16	491		152R	3
TREE	413324.53	-832812.40	1A	687		65	65	64	1726		85R	-11

4 ANP 623/ 623 413335.893 -832910.337 384903.

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
ROAD(N)	413331.01	-832910.83	1A	638		15	15	15	409		281R	5
TREE	413330.39	-832911.50	1A	643		20	20	20	489		281R	6
TREE	413330.36	-832915.19	1A	658		35	35	35	667		64R	12
POLE	413330.37	-832920.47	1A	663		40	40	40	919		249L	4
POLE	413327.20	-832919.17	1A	668		45	45	45	1106		28R	0
POLE	413324.48	-832919.03	1A	673		50	50	50	1315		209R	-6

22 AV 621/ 413404.100 -832840.119 2184923. 621/ 623 413403.410 -832840.858

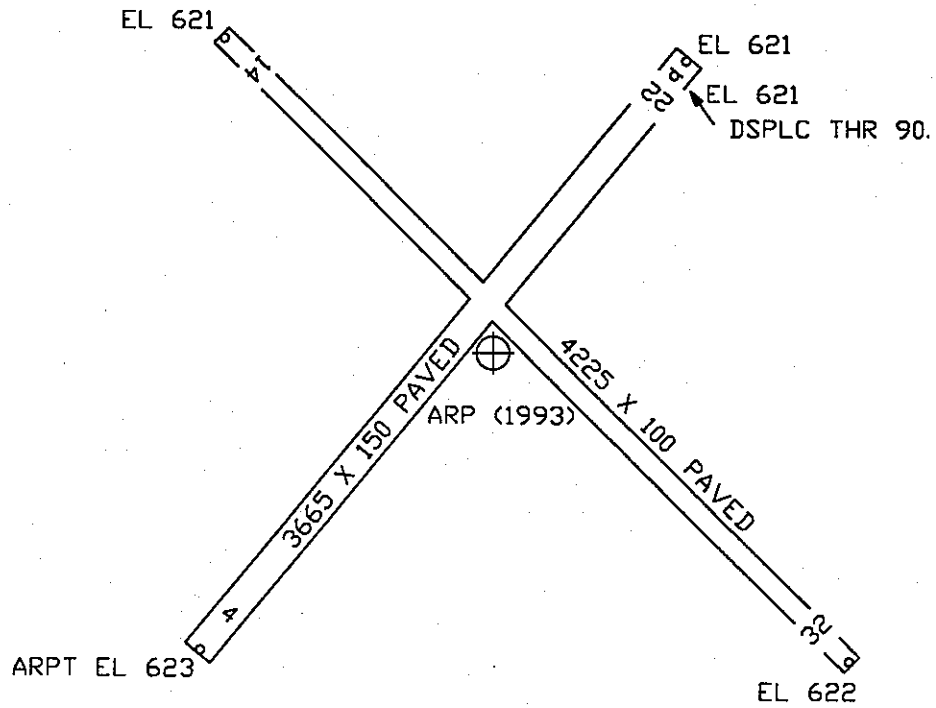
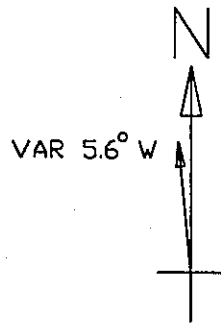
OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
POLE	413406.89	-832834.40	1A	639		18	16	16	493	582	161L	3
TREE	413407.05	-832833.56	1A	659		38	36	36	545	635	201L	21
RAILROAD	413408.33	-832835.56	1A	648		27	25	25	551	640	2L	9
TREE	413410.76	-832837.16	1A	663		42	40	40	666	756	248R	19
TREE	413414.39	-832825.51	1A	682		61	59	59	1508	1597	213L	-4

000421

AIRPORT ELEVATION 623

ARP 413350.166 -832852.130

OBJECT	LAT	LONG	A	EL	AGL	HAA	MAG BEARING	DISTANCE
FENCE	413344.95	-832856.01	1A	628		5	21445	605
OL ON WSK	413358.74	-832851.70	1A	645		22	744	868
OL ON APBN	413349.44	-832836.15	1A	680		57	9903	1217
OL ON BLDG	413332.89	-832835.12	1A	672		49	14906	2174
FENCE	413332.65	-832909.16	1A	629		6	22143	2196
TREE	413407.61	-832829.58	1A	668		45	4944	2461
TREE	413329.82	-832910.14	1A	680		57	21913	2472
POLE	413331.86	-832920.41	1A	654		31	23451	2838
ANT ON LT TWR	413333.91	-832923.59	1A	728		105	24104	2903
OL ON BLDG	413332.98	-832819.29	1A	672		49	13028	3043
TREE	413332.14	-832819.74	1A	685		62	13208	3064
LT TWR	413411.19	-832933.32	1B	739		116	30948	3785
OL ON TWR	413437.31	-832822.63	1A	761		138	3045	5272
OL ON TANK	413503.78	-832932.47	1A	753		130	34314	8057



TOUCHDOWN ZONE
RUNWAY ELEVATION

14	622
32	622
4	623
22	623

METCALF FIELD

TOLEDO, OHIO

<NOT TO SCALE>

<ELEVATIONS AND DISTANCES IN FEET>