

OBSTRUCTION DATA SHEET

ODS 863
RICHMOND MUNICIPAL AIRPORT
RICHMOND, INDIANA

DIGITIZED FROM

OC 863
SURVEYED JUNE 1988
3RD EDITION



PREPARED AND DISTRIBUTED BY
THE NATIONAL OCEAN SERVICE
U.S. DEPARTMENT OF COMMERCE
FOR THE FEDERAL AVIATION ADMINISTRATION

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:

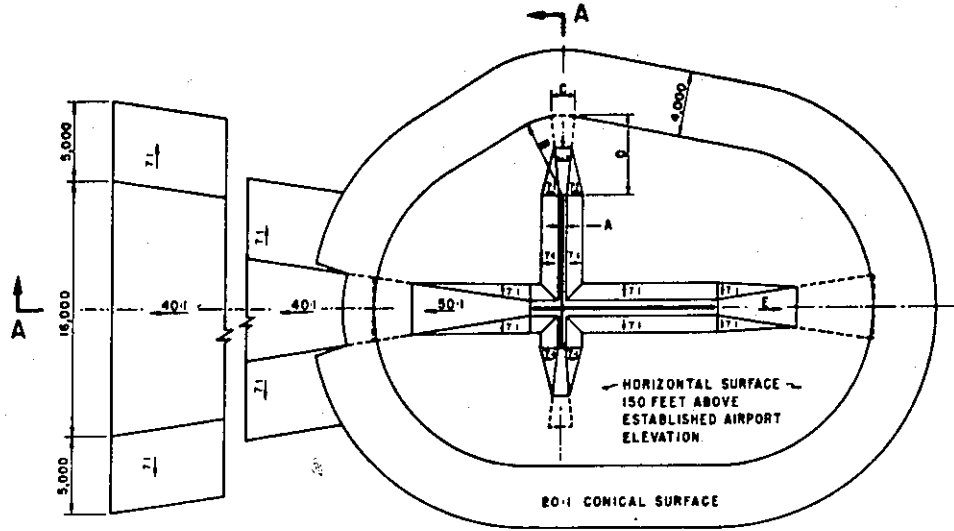
1. Objects located in FAR-77 approach (including supplemental approaches if present) or primary areas are listed with the associated runway (reference runway). For example, all objects in the Runway 9R approach or primary are listed with Runway 9R. Distances to these objects are computed from both the 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)

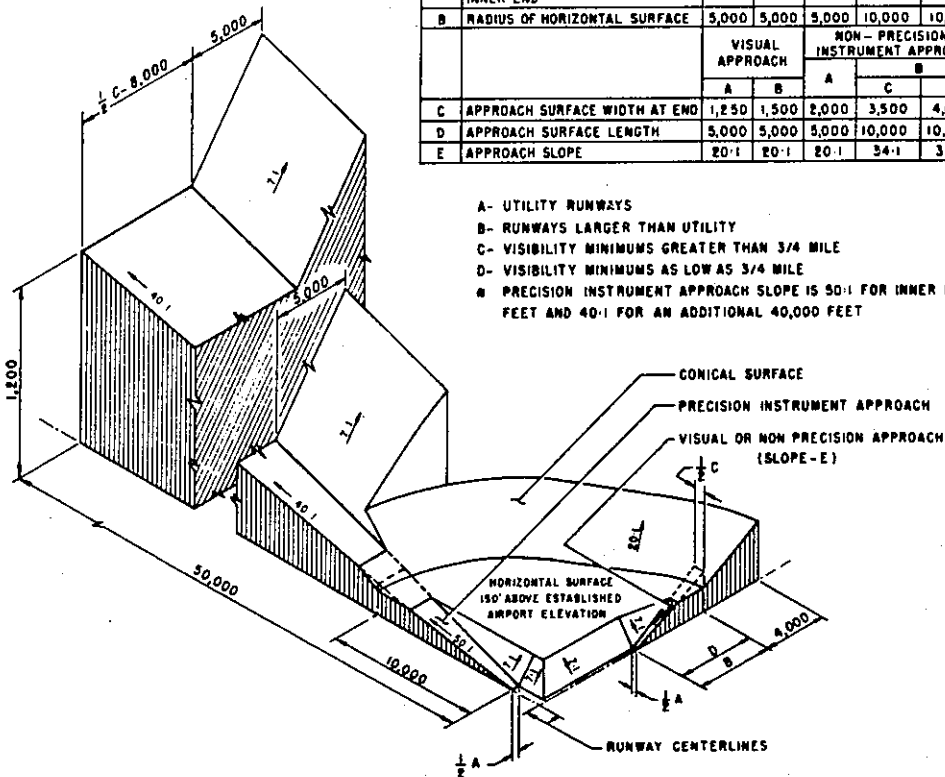
FAR-77 imaginary surface dimensions are defined on page 2 of this report.

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	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

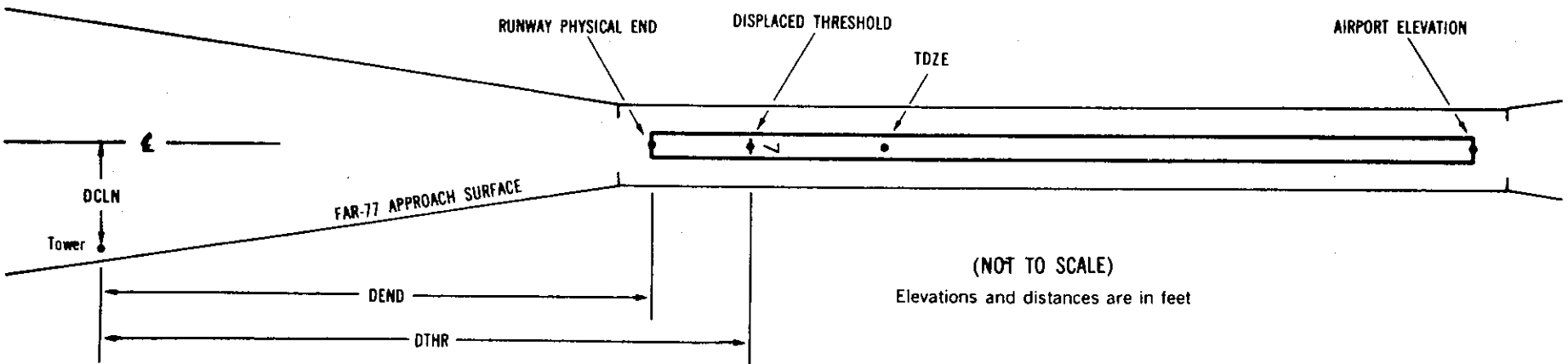
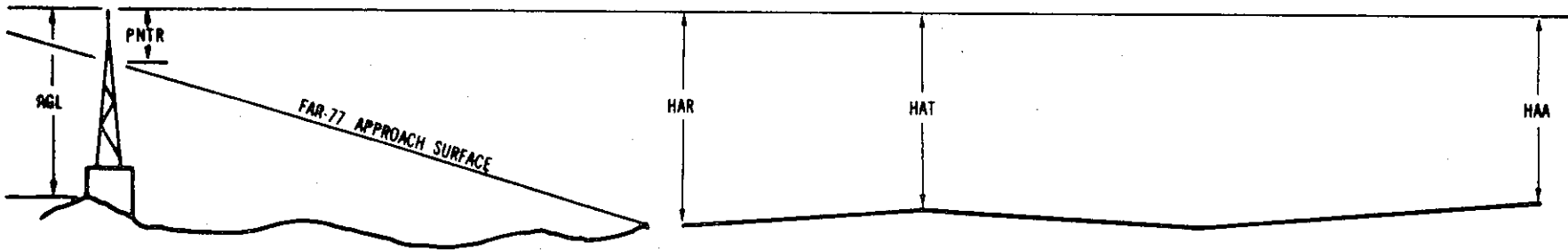
ANNOTATION OF ODS DATA FORMAT

OC XXXX

AIRPORT ELEVATION XXXX

X¹ X² XXXX/XXXX³ XXXXXX.XXX⁴ XXXXXXXX.XXX⁴ XXXXXXXX⁵ XXXX/XXXX⁶ XXXXXX.XXX⁷ XXXXXXXX.XXX⁷

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



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).

OC0863

AIRPORT ELEVATION 1140

6 C 1134/1136 394507.470N 0845057.361W 2350856

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
GROUND	394533.96	0844956.95	1A	1139		5	3	-1	-5404		496R	1
WINDSOCK	394532.85	0845007.51	1A	1148		14	12	8	-4663		117R	9
OL MONITOR POLE	394529.75	0845006.97	1A	1160		26	24	20	-4518		399R	21
OL GLIDE SLOPE	394528.51	0845009.25	1A	1172		38	36	32	-4301		400R	33
OL WIND TETRAHEDRON	394521.09	0845042.49	1A	1147		13	11	7	-1741		467L	13
ANTENNA ON BUILDING	394506.30	0845105.65	1A	1146		12	10	6	599		273L	0
OL LOCALIZER	394504.08	0845103.68	1A	1142		8	6	2	601		0R	-4
ROAD (N)	394502.01	0845107.69	1A	1156		22	20	16	978		8L	-1
TREE	394453.70	0845108.12	1A	1174		40	38	34	1486		663R	2
TREE	394454.25	0845110.09	1A	1172		38	36	32	1581		530R	-3

24 PIR 1138/1139 394536.831N 08450 2.726W 0550931

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
OL WIND TETRAHEDRON	394521.09	0845042.49	1A	1147		9	8	7	-3458		467R	13
OL GLIDE SLOPE	394528.51	0845009.25	1A	1172		34	33	32	-899		400L	33
OL MONITOR POLE	394529.75	0845006.97	1A	1160		22	21	20	-681		399L	21
WINDSOCK	394532.85	0845007.51	1A	1148		10	9	8	-537		117L	9
GROUND	394533.96	0844956.95	1A	1139		1	0	-1	204		496L	1
ROAD (N)	394546.72	0844957.87	1A	1153		15	14	13	883		604R	1
BUILDING	394541.40	0844944.17	1A	1157		19	18	17	1453		449L	-6
TREE	394600.65	0844925.50	1A	1209		71	70	69	3763		317R	0

OC0863

AIRPORT ELEVATION 1140

10 A(V) 1124/1136 394538.969N 0845059.752W 2800810

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
WINDSOCK	394539.16	0845053.28	1A	1137		13	1	-3	-494		108L	10
ROAD (N)	394540.11	0845108.04	1A	1141		17	5	1	658		0L	-6
TREE	394542.96	0845127.12	1A	1151		27	15	11	2175		22L	-72

28 A(V) 1137/1137 394532.686N 0845014.238W 1000839

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
WINDSOCK	394539.16	0845053.28	1A	1137		0	0	-3	-3117		108R	10
WINDSOCK	394532.85	0845007.51	1A	1148		11	11	8	515		109R	-5

15 SUPLC 1127/1136 394542.591N 0845054.748W 3250814

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
WINDSOCK	394539.16	0845053.28	1A	1137		10	1	-3	-350		105R	9
TREE	394548.86	0845055.98	1A	1162		35	26	22	575		284L	24
TREE	394549.04	0845059.32	1A	1143		16	7	3	739		80L	0
ANTENNA	394551.05	0845104.59	1A	1158		31	22	18	1142		141R	3
TREE	394550.66	0845106.97	1A	1172		45	36	32	1215		317R	15
TREE	394552.95	0845105.44	1A	1159		32	23	19	1337		87R	-1
TREE	394554.81	0845102.01	1A	1153		26	17	13	1339		242L	-7

OC0863

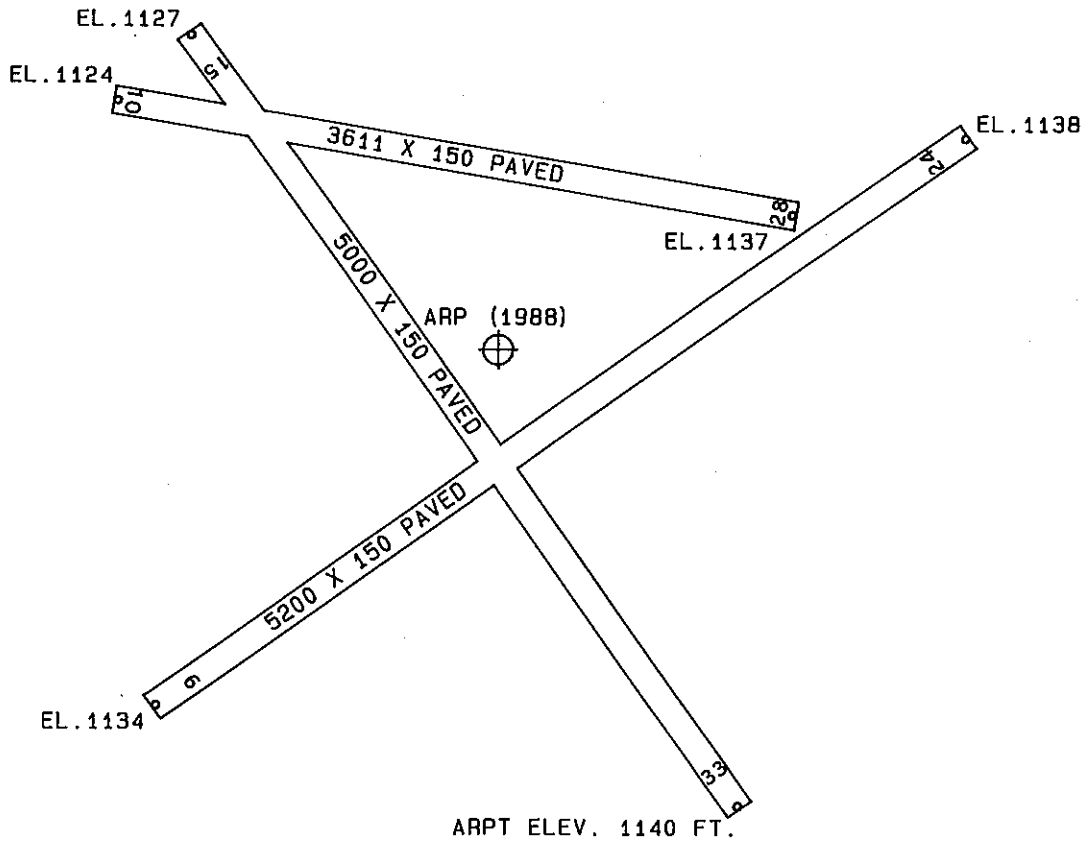
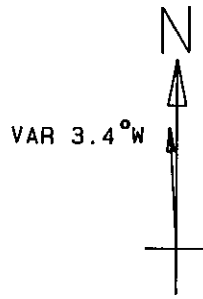
AIRPORT ELEVATION 1140

33 SUPLC 1140/1140 394502.045N 0845018.158W 1450838

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
WINDSOCK	394539.16	0845053.28	1A	1137		-3	-3	-3	-4649		105L	9
ROAD (N)	394454.08	0845015.77	1A	1155		15	15	15	768		307L	-2
POLE	394447.54	0844959.78	1A	1170		30	30	30	2024		340R	-24
TREE	394436.84	0844958.50	1A	1226		86	86	86	2971		198L	5

ARP 394525.788N 0845034.182W

OBJECT	LAT	LONG	A	ELEV	AGL	HAA	MAG	BEARING	DISTANCE
VORTAC	394517.88	0845019.96	1A	1171		31	129	9	1369
OL AIRPORT BEACON	394523.52	0845059.82	1A	1205		65	266	51	2016
TREE	394549.00	0845054.37	1A	1175		35	329	32	2829
TREE	394547.21	0845109.50	1A	1198		58	311	34	3509



TOUCHDOWN ZONE RUNWAY ELEVATION	
6	1136
24	1139
10	1136
28	1137
15	1136
33	1140

RICHMOND MUNICIPAL AIRPORT
RICHMOND, INDIANA
(NOT TO SCALE)