

# OBSTRUCTION DATA SHEET

ODS 5257  
MANISTEE COUNTY - BLACKER AIRPORT  
MANISTEE, MICHIGAN

DIGITIZED FROM

OC 5257  
SURVEYED OCTOBER 1987  
5TH 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:

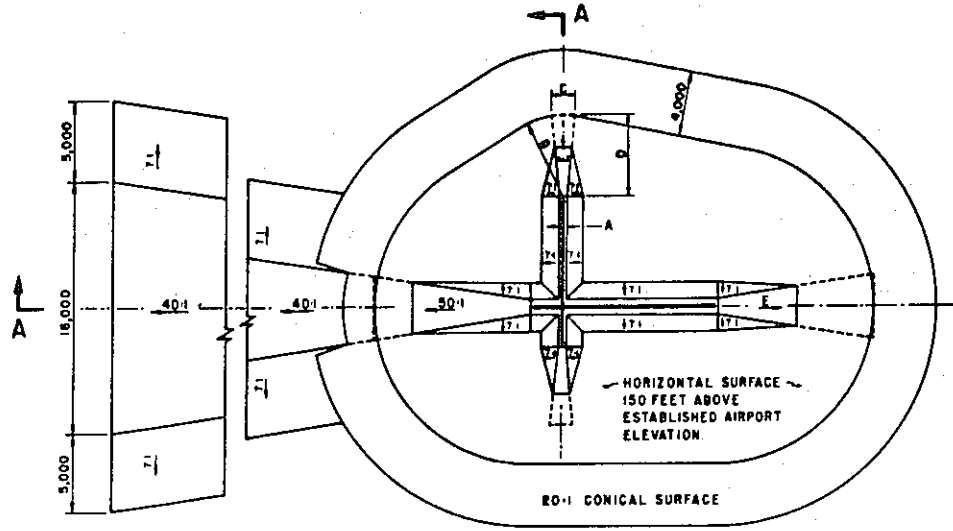
1. Objects located in FAR-77 approach (including supplemental approaches if present) or primary areas are listed with the associated runway (reference runway). For example, all objects in the Runway 9R approach or primary are listed with Runway 9R. Distances to these objects are computed from both the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

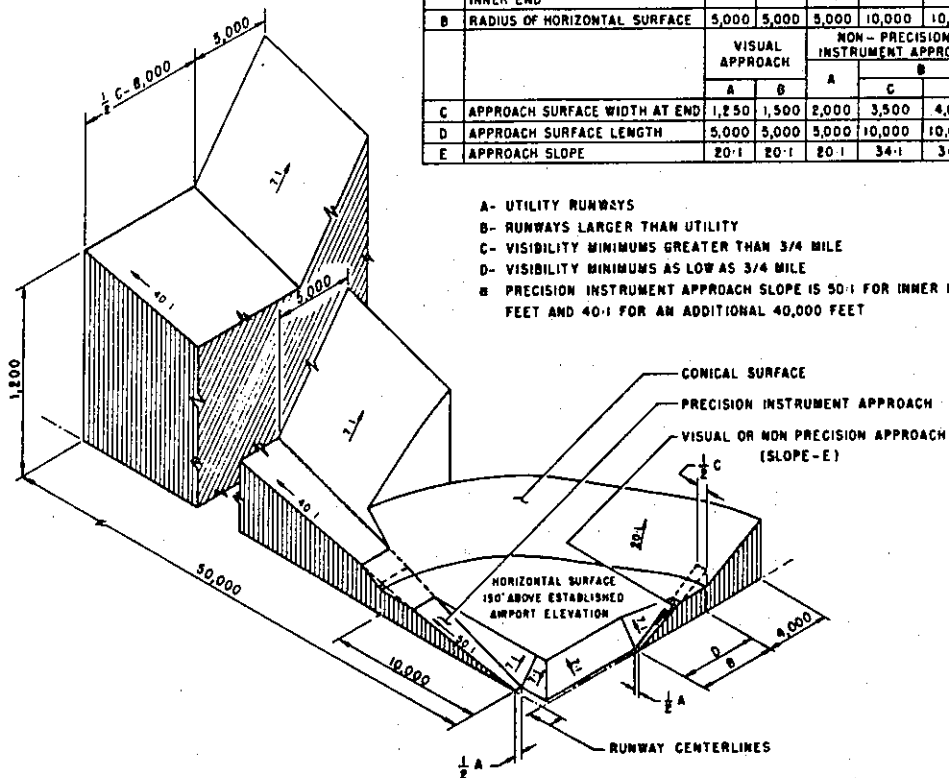
FAR-77 imaginary surface dimensions are defined on page 2 of this report.

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

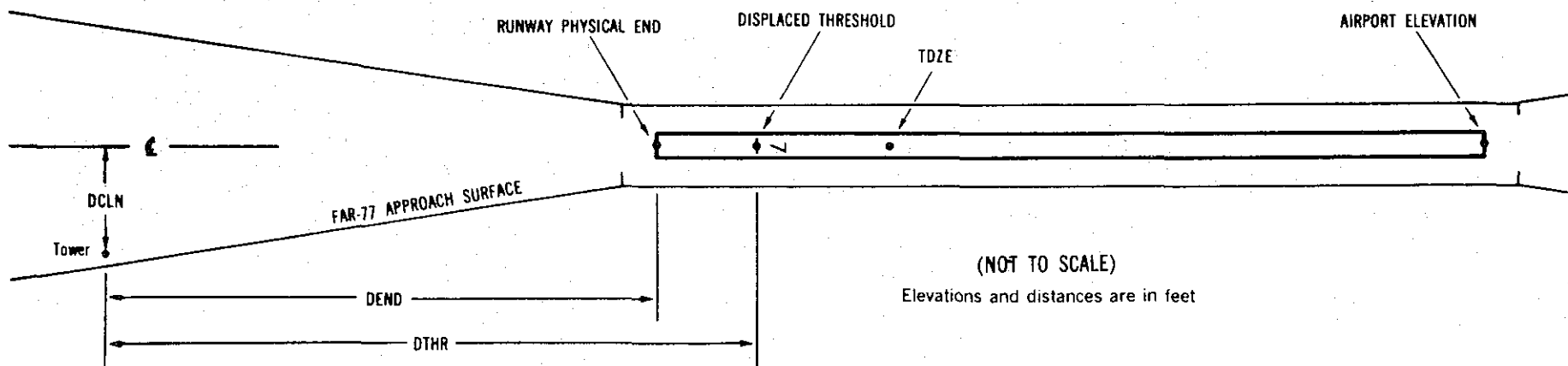
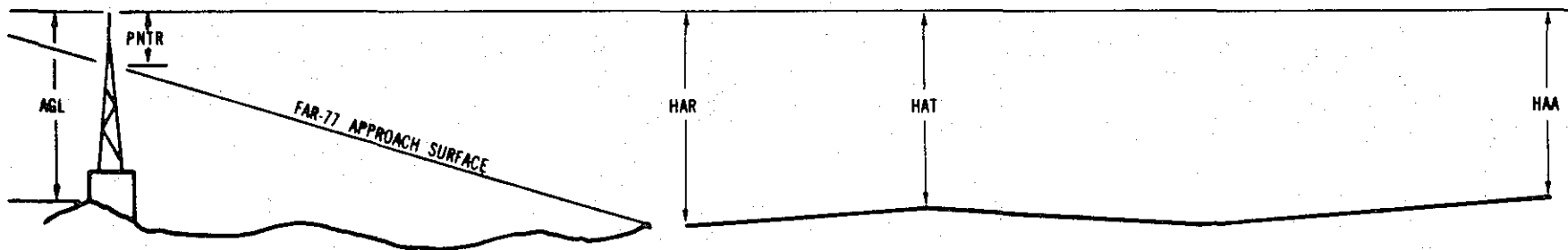
# ANNOTATION OF ODS DATA FORMAT

OC XXXX

AIRPORT ELEVATION XXXX

X <sup>1</sup>	X <sup>2</sup>	XXXX/XXXX <sup>3</sup>	XXXXXX.XXX <sup>4</sup>	XXXXXXXX.XXX <sup>4</sup>	XXXXXXX <sup>5</sup>	XXXX/XXXX <sup>6</sup>	XXXXXX.XXX <sup>7</sup>	XXXXXXXX.XXX <sup>7</sup>				
OBJECT	LAT	LONG	A <sup>8</sup>	ELEV <sup>9</sup>	AGL <sup>10</sup>	HAR <sup>11</sup>	HAT <sup>11</sup>	HAA <sup>11</sup>	DEND <sup>12</sup>	DTHR <sup>12</sup>	DCLN <sup>12</sup>	PNTR <sup>13</sup>
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 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  $\pm 10$  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).

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AIRPORT ELEVATION 620

9 C 615/619 441626.295N 0861528.278W 2712543

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
GROUND	441622.97	0861410.20	1A	621		6	2	1	-5687		194R	1
GROUND	441622.88	0861417.44	1A	621		6	2	1	-5161		216R	1
OL ON POLE	441627.35	0861419.18	1A	657		42	38	37	-5024		232L	37
TREE	441627.73	0861425.80	1A	644		29	25	24	-4541		259L	24
GROUND	441623.69	0861432.60	1A	621		6	2	1	-4057		163R	2
GROUND	441623.18	0861439.43	1A	620		5	1	0	-3561		227R	1
GROUND	441627.72	0861443.79	1A	620		5	1	0	-3232		225L	1
GROUND	441623.91	0861459.47	1A	618		3	-1	-2	-2101		189R	0
BUSH	441624.03	0861529.64	1A	620		5	1	0	93		231R	5
ROAD (N)	441629.80	0861538.48	1A	630		15	11	10	751		336L	-1
TREE	441629.68	0861541.91	1A	645		30	26	25	1000		318L	6
POLE	441625.81	0861547.74	1A	646		31	27	26	1414		85R	-5
TREE	441639.54	0861706.94	1A	788		173	169	168	7209		1163L	-33
TREE	441636.26	0861729.17	1A	797		182	178	177	8818		791L	-71

27 C 620/620 441624.934N 0861412.691W 0912636

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
BUSH	441624.03	0861529.64	1A	620		0	0	0	-5595		231L	5
GROUND	441623.91	0861459.47	1A	618		-2	-2	-2	-3400		189L	0
GROUND	441627.72	0861443.79	1A	620		0	0	0	-2269		225R	1
GROUND	441623.18	0861439.43	1A	620		0	0	0	-1940		227L	1
GROUND	441623.69	0861432.60	1A	621		1	1	1	-1445		163L	2
TREE	441627.73	0861425.80	1A	644		24	24	24	-960		259R	24
OL ON POLE	441627.35	0861419.18	1A	657		37	37	37	-478		232R	37
GROUND	441622.88	0861417.44	1A	621		1	1	1	-340		216L	1
GROUND	441622.97	0861410.20	1A	621		1	1	1	186		194L	1
TREE	441628.29	0861400.56	1A	640		20	20	20	874		362R	0
ROAD (N)	441624.65	0861359.98	1A	636		16	16	16	925		5L	-5

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AIRPORT ELEVATION 620

36 A(V) 619/ 441605.431N 08615 7.665W 1812621

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
GROUND	441615.61	0861509.17	1A	619		0		-1	-1028		135L	1
BUSH	441608.07	0861505.73	1A	624		5		4	-270		134R	5
BUSH	441603.91	0861506.06	1A	626		7		6	151		120R	7
TREE	441556.93	0861506.53	1A	643		24		23	859		104R	-9
TREE	441551.36	0861507.48	1A	678		59		58	1425		49R	-2

18 A(V) 618/ 441633.069N 08615 6.698W 0012622

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
BUSH	441603.91	0861506.06	1A	626		8		6	-2951		120L	7
BUSH	441608.07	0861505.73	1A	624		6		4	-2529		134L	5
GROUND	441615.61	0861509.17	1A	619		1		-1	-1772		135R	1
ROAD (N)	441637.81	0861504.39	1A	632		14		12	484		156L	0
TREE	441645.41	0861509.32	1A	669		51		49	1245		222R	-1
TREE	441645.66	0861505.99	1A	668		50		48	1276		19L	-4
TREE	441646.75	0861508.01	1A	675		57		55	1383		130R	-2
TREE	441649.24	0861502.40	1A	684		66		64	1645		271L	-6

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AIRPORT ELEVATION 620

ARP 441623.469N 0861456.116W

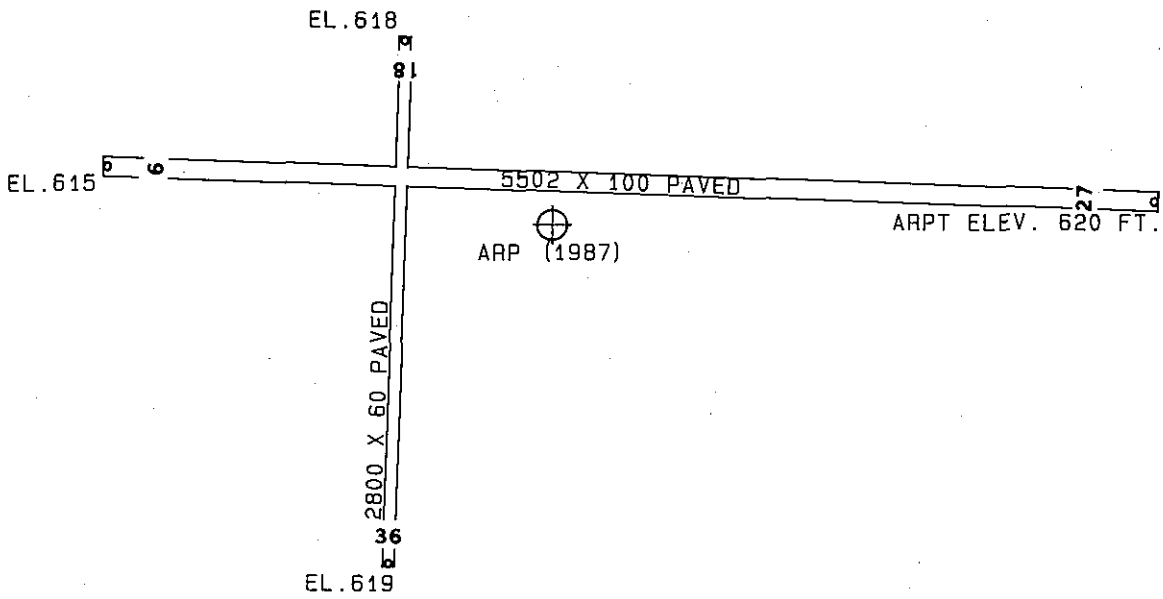
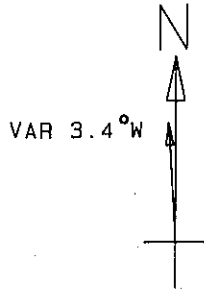
OBJECT	LAT	LONG	A	ELEV	AGL	HAA	MAG BEARING	DISTANCE
TREE	441632.81	0861452.83	1A	676		56	17 36	975
TREE	441611.88	0861501.07	1A	668		48	200 29	1228
OL ON LTD WSK	441630.21	0861510.95	1A	637		17	305 43	1277
TREE	441605.32	0861501.80	1A	659		39	196 5	1884
ANTENNA	441629.26	0861430.31	1A	650		30	76 4	1967
ROD ON OL APBN	441633.34	0861520.00	1A	697		77	303 19	2005
TREE	441643.61	0861501.42	1A	681		61	352 41	2076
TREE	441644.70	0861510.55	1A	668		48	337 23	2393
TREE	441633.35	0861527.38	1A	684		64	297 8	2485
TREE	441628.36	0861420.60	1A	670		50	82 33	2631
TREE	441620.46	0861535.40	1A	667		47	267 19	2874
POLE	441629.58	0861534.90	1A	632		12	285 46	2889
TREE	441554.70	0861502.34	1A	677		57	192 15	2948
TREE	441556.41	0861514.82	1A	675		55	209 49	3060
TREE	441554.95	0861513.08	1A	668		48	206 33	3141
TREE	441631.04	0861410.31	1A	672		52	80 26	3420
TREE	441657.19	0861459.13	1A	722		102	359 44	3422
TREE	441629.06	0861407.97	1A	645		25	84 13	3549
TREE	441620.31	0861552.92	1A	671		51	268 59	4146
TREE	441630.30	0861358.64	1A	670		50	84 0	4239
TREE	441700.08	0861532.04	1B	781		161	328 13	4536
TREE	441710.98	0861512.39	1B	778		158	349 35	4955
TREE	441653.01	0861358.25	1B	786		166	58 0	5165
TREE	441659.29	0861552.80	1B	785		165	314 44	5493
TREE	441731.24	0861434.29	1B	783		163	16 25	7044
TREE	441656.40	0861325.64	1B	796		176	66 32	7379
TREE	441729.59	0861538.94	1B	802		182	338 27	7385
TREE	441733.99	0861527.71	1B	782		162	345 34	7502
TREE	441729.93	0861545.37	1B	790		170	335 22	7625
TREE	441705.36	0861623.85	1B	785		165	307 1	7664
TREE	441657.66	0861635.71	1B	783		163	298 57	8031
TREE	441740.68	0861531.11	1B	806		186	345 22	8222
TREE	441743.91	0861530.36	1B	794		174	346 24	8518



AIRPORT ELEVATION 620

ARP 441623.469N 0861456.116W

OBJECT	LAT	LONG	A	ELEV	AGL	HAA	MAG BEARING	DISTANCE
TREE	441649.18	0861650.29	1B	784		164	290 49	8705
TREE	441750.28	0861457.97	1B	782		162	2 31	8792
TREE	441758.02	0861513.81	1B	801		181	355 45	9661
TREE	441743.03	0861335.49	1B	851		231	39 27	9966
TREE	441742.34	0861315.14	1B	840		220	46 0	10851
TREE	441700.39	0861728.04	1B	799		179	292 6	11668
TREE	441809.38	0861331.59	2C	906		286	33 13	12363
ROD ON OL STACK	441741.78	0861237.74	2C	871		251	55 9	12815



TOUCHDOWN ZONE	
RUNWAY ELEVATION	
9	619
27	620

MANISTEE COUNTY - BLACKER AIRPORT  
 MANISTEE, MICHIGAN  
 (NOT TO SCALE)