

OBSTRUCTION DATA SHEET

**ODS 718
ALPENA COUNTY REGIONAL AIRPORT
ALPENA, MICHIGAN**

DIGITIZED FROM

**OC 718
SURVEYED AUGUST 1990
7TH EDITION**



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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:

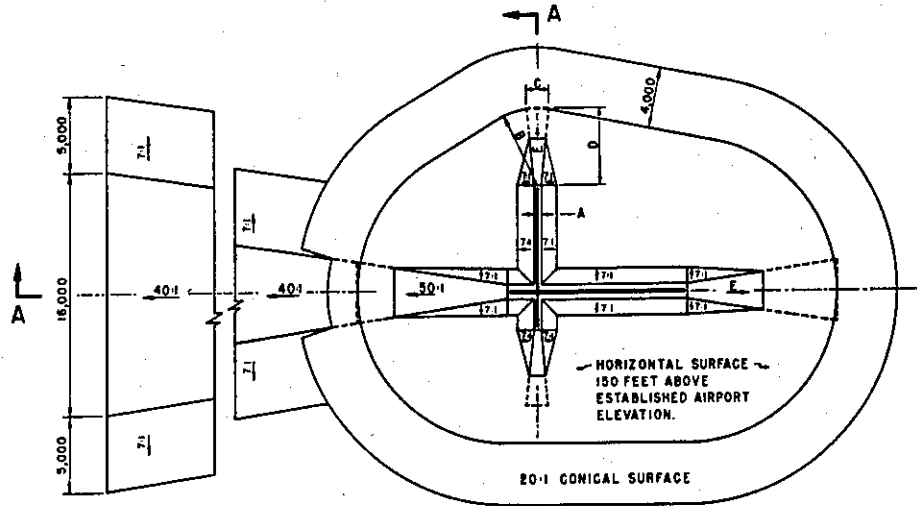
1. Objects located in FAR-77 approach (including supplemental approaches if present) or primary areas are listed with the associated runway (reference runway). For example, all objects in the Runway 9R approach or primary are listed with Runway 9R. Distances to these objects are computed from both the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

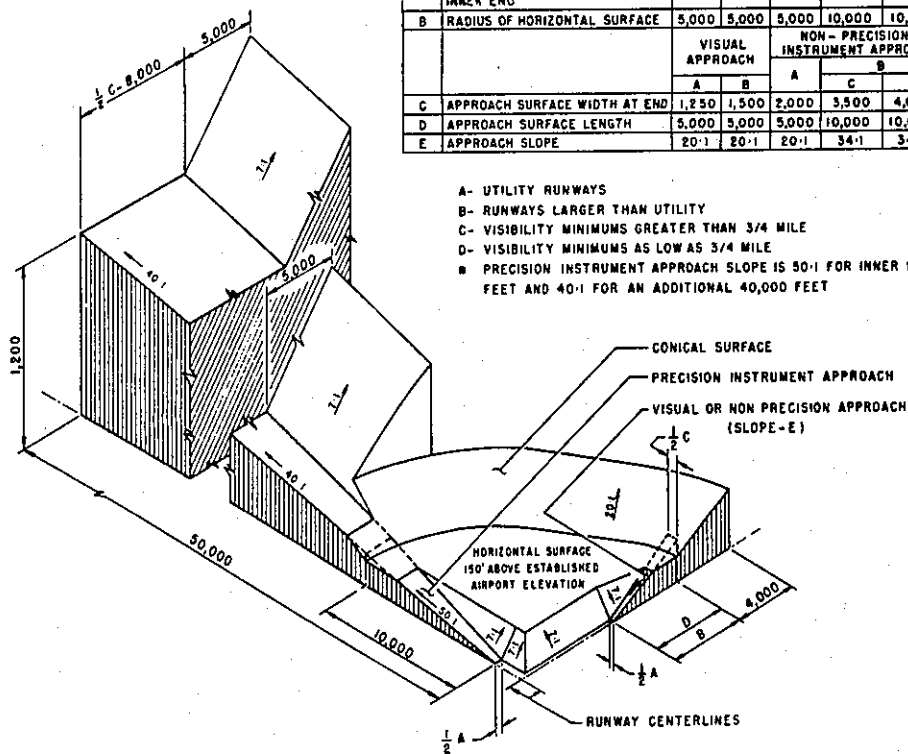
FAR-77 imaginary surface dimensions are defined on page 2 of this report.

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	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
C	APPROACH SURFACE WIDTH AT END	VISUAL APPROACH		NON-PRECISION INSTRUMENT APPROACH			PRECISION INSTRUMENT APPROACH
		A	B	A	C	D	
D	APPROACH SURFACE LENGTH	5,000	5,000	5,000	10,000	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

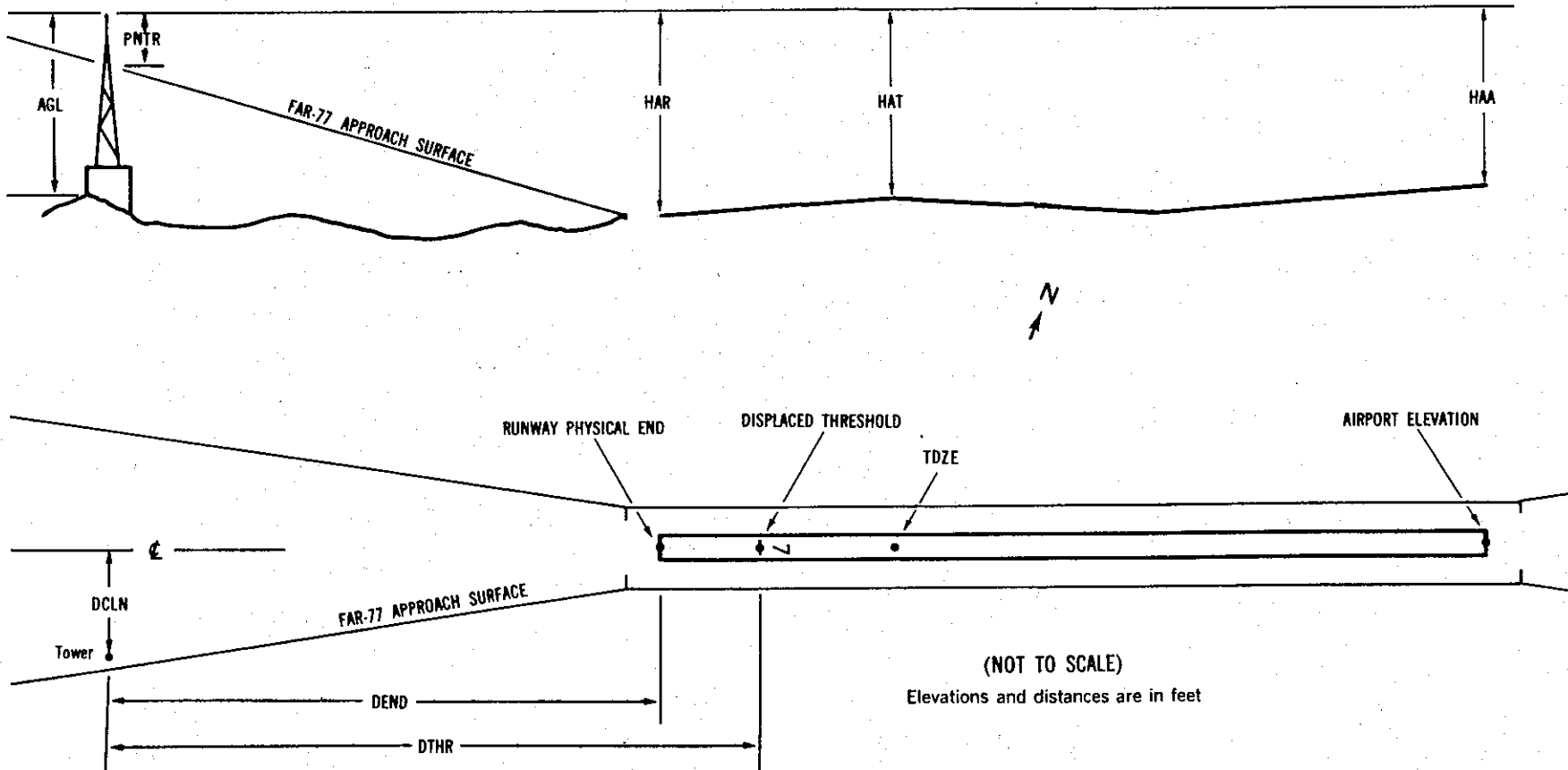
FAR-77 CIVIL AIRPORT
IMAGINARY SURFACES

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
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).

OC0718

AIRPORT ELEVATION 689

19 C 683/683 450522.603N 0833341.438W 3594809

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
RADAR REFLECTOR	450351.70	0833344.13	1A	694		11	11	5	-9206		225R	11
VENT ON CABLE HOUSING	450353.31	0833338.95	1A	685		2	2	-4	-9044		147L	2
RADAR REFLECTOR	450353.75	0833337.87	1A	692		9	9	3	-9000		225L	9
OL ON GLIDE SLOPE	450403.23	0833335.48	1A	713		30	30	24	-8040		400L	28
ANT ON OL OBSERVATION CAB	450406.15	0833344.27	1A	690		7	7	1	-7742		230R	5
BUSH	450415.21	0833335.07	1A	688		5	5	-1	-6827		434L	4
BUSH	450419.12	0833334.67	1A	688		5	5	-1	-6432		463L	4
WIND INDICATOR	450505.79	0833334.39	1A	693		10	10	4	-1704		500L	11
ANT ON OL OBSERVATION CAB	450512.76	0833344.80	1A	691		8	8	2	-996		244R	9
RADAR REFLECTOR	450514.64	0833334.17	1A	692		9	9	3	-808		519L	10
RADAR REFLECTOR	450520.55	0833344.70	1A	688		5	5	-1	-208		235R	5
RADAR REFLECTOR	450520.56	0833338.15	1A	687		4	4	-2	-207		235L	4
ANTENNA ON BUILDING	450532.59	0833344.32	1A	694		11	11	5	1012		203R	-13
OL ON LOCALIZER	450532.66	0833341.49	1A	690		7	7	1	1018		OL	-17
TREE	450533.63	0833345.18	1A	704		21	21	15	1118		265R	-6
TREE	450544.06	0833347.68	1A	734		51	51	45	2174		440R	-7

OC0718

AIRPORT ELEVATION 689

1 PIR 683/685 450353.737N 0833341.006W 1794809

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
RADAR REFLECTOR	450520.55	0833344.70	1A	688		5	3	-1	-8793		235L	5
RADAR REFLECTOR	450520.56	0833338.15	1A	687		4	2	-2	-8793		235R	4
RADAR REFLECTOR	450514.64	0833334.17	1A	692		9	7	3	-8192		519R	10
ANT ON OL OBSERVATION CAB	450512.76	0833344.80	1A	691		8	6	2	-8004		244L	9
WIND INDICATOR	450505.79	0833334.39	1A	693		10	8	4	-7296		500R	11
BUSH	450419.12	0833334.67	1A	688		5	3	-1	-2569		463R	4
BUSH	450415.21	0833335.07	1A	688		5	3	-1	-2173		434R	4
ANT ON OL OBSERVATION CAB	450406.15	0833344.27	1A	690		7	5	1	-1258		230L	5
OL ON GLIDE SLOPE	450403.23	0833335.48	1A	713		30	28	24	-960		400R	28
RADAR REFLECTOR	450353.75	0833337.87	1A	692		9	7	3	0		225R	9
VENT ON CABLE HOUSING	450353.31	0833338.95	1A	685		2	0	-4	44		147R	2
RADAR REFLECTOR	450351.70	0833344.13	1A	694		11	9	5	206		225L	11
ANTENNA ON BUILDING	450343.91	0833348.36	1A	693		10	8	4	993		531L	-6
POLE	450337.04	0833345.52	1A	710		27	25	21	1690		330L	-3
TREE	450322.25	0833336.27	1A	746		63	61	57	3190		329R	3
TREE	450318.67	0833326.86	1A	751		68	66	62	3555		1003R	1
TREE	450315.70	0833342.20	1B	756		73	71	67	3852		99L	-1
TREE	450315.35	0833347.46	1A	754		71	69	65	3886		477L	-3
TREE	450314.15	0833351.84	1A	761		78	76	72	4007		791L	2

OC0718

AIRPORT ELEVATION 689

7 SUPLC 689/689 450433.678N 08334 0.217W 2394811

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
BUSH	450454.84	0833301.77	1A	694		5	5	5	-4703		257R	15
BUSH	450452.68	0833307.23	1A	688		-1	-1	-1	-4254		249R	9
BUSH	450448.40	0833317.86	1A	690		1	1	1	-3377		240R	11
BUSH	450443.86	0833329.22	1A	688		-1	-1	-1	-2441		227R	7
TREE	450427.15	0833407.89	1A	727		38	38	38	809		295R	20
TREE	450431.28	0833414.72	1A	723		34	34	34	1022		313L	10
TREE	450427.75	0833412.09	1A	723		34	34	34	1038		90R	9
TREE	450420.85	0833418.72	1A	755		66	66	66	1801		455R	19
TREE	450424.24	0833421.63	1A	742		53	53	53	1809		53R	6
TREE	450426.39	0833425.55	1A	751		62	62	62	1943		277L	11

25 SUPLC 679/682 450458.657N 0833259.622W 0594854

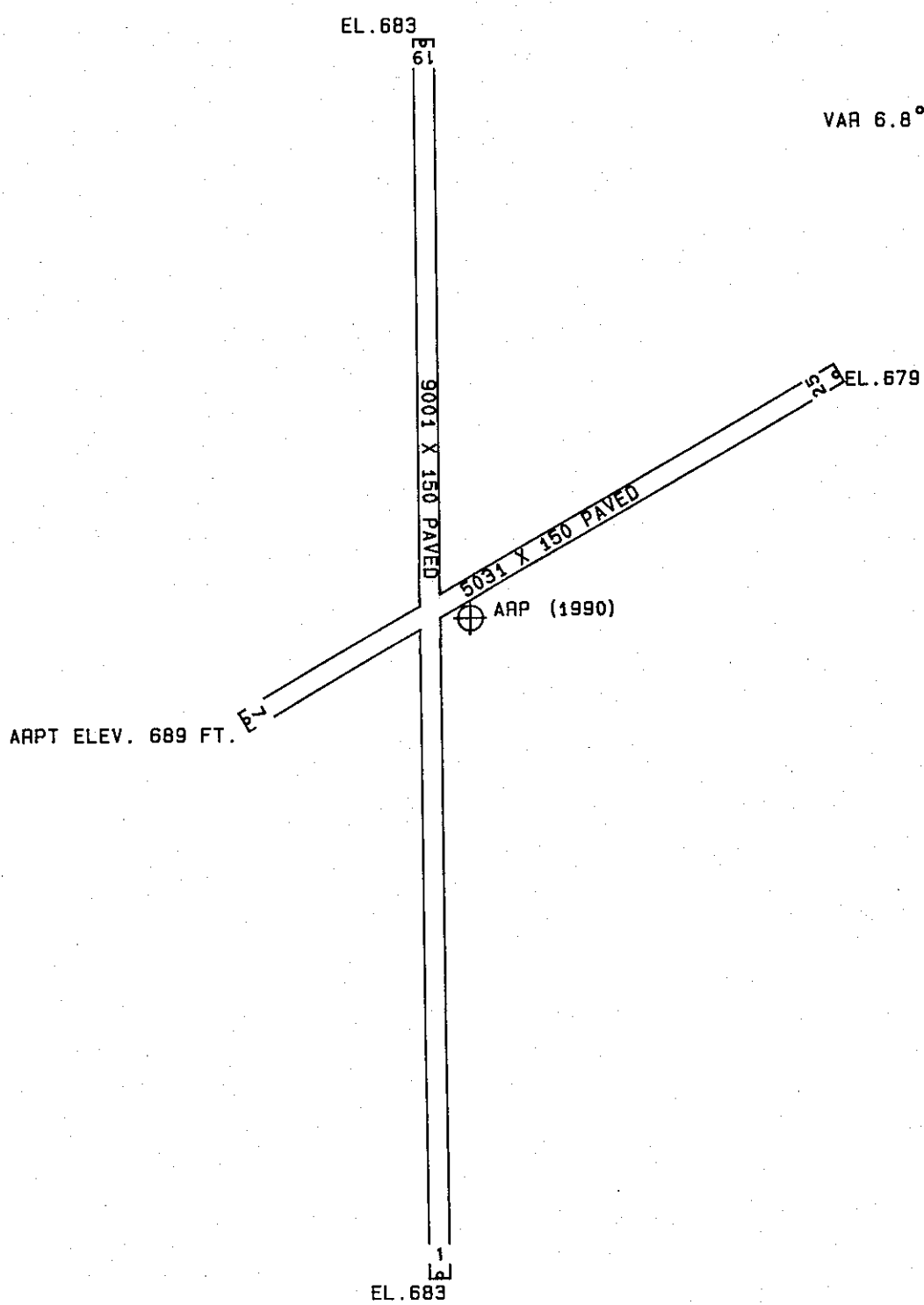
OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
BUSH	450443.86	0833329.22	1A	688		9	6	-1	-2589		227L	7
BUSH	450448.40	0833317.86	1A	690		11	8	1	-1653		240L	11
BUSH	450452.68	0833307.23	1A	688		9	6	-1	-776		249L	9
BUSH	450454.84	0833301.77	1A	694		15	12	5	-328		257L	15
TREE	450501.69	0833246.75	1A	716		37	34	27	953		199L	15
TREE	450505.88	0833246.22	1A	708		29	26	19	1199		149R	-1
TREE	450509.85	0833234.88	1A	731		52	49	42	2104		87R	-4
TREE	450509.24	0833222.10	1A	754		75	72	65	2866		427L	-3
TREE	450514.65	0833226.39	1A	743		64	61	54	2876		201R	-15

OC0718

AIRPORT ELEVATION 689

ARP 450441.038N 0833337.170W

OBJECT	LAT	LONG	A	ELEV	AGL	HAA	MAG BEARING	DISTANCE
OL ON ASR/PAR	450438.25	0833333.69	1A	708		19	145 15	377
BUSH	450445.93	0833322.75	1A	695		6	71 13	1148
ANTENNA AND APBN ON ATCT	450446.40	0833357.18	1A	775		86	297 31	1535
OL ON LIGHTED WINDSOCK	450457.56	0833333.24	1A	704		15	16 23	1697
BUSH	450453.59	0833320.76	1A	688		-1	49 37	1733
ANTENNA ON OL MONITOR POLE	450457.47	0833324.47	1A	722		33	35 31	1897
OL VOR	450457.96	0833325.29	1A	707		18	33 15	1914
ROD ON OL DF	450457.74	0833312.64	1A	692		3	52 56	2441
TREE	450427.51	0833405.68	1A	727		38	243 0	2462
ANEMOMETER	450416.80	0833349.81	1A	706		17	207 5	2617
WINDSOCK	450416.44	0833349.48	1A	697		8	206 19	2643
TREE	450410.09	0833331.14	1A	723		34	178 57	3164
TREE	450500.21	0833241.57	1A	718		29	70 51	4437
TREE	450343.35	0833351.79	1A	743		54	196 59	5936
TREE	450336.10	0833327.62	1A	750		61	180 51	6612
TREE	450334.90	0833352.52	1A	749		60	196 9	6788
TREE	450549.94	0833356.45	1A	747		58	355 36	7114
TREE	450331.00	0833353.45	1A	757		68	196 9	7189



TOUCHDOWN ZONE
RUNWAY ELEVATION

19	683
1	685
7	689
25	682

ALPENA COUNTY REGIONAL AIRPORT

ALPENA, MICHIGAN

(NOT TO SCALE)