

# OBSTRUCTION DATA SHEET

**ODS 5092  
FALLS INTERNATIONAL AIRPORT  
INTERNATIONAL FALLS, MINNESOTA**

**DIGITIZED FROM**

**OC 5092  
SURVEYED AUGUST 1991  
6TH EDITION**



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

## **ATTENTION**

See SPECIAL NOTICES in "Dates of Latest Editions, Airport Obstruction Charts - Obstruction Data Sheets," for possible corrections. National Oceanic and Atmospheric Administration (NOAA) publications are available through NOAA Distribution Branch (N/CG33), National Ocean Service, Riverdale, MD 20737. Telephone: 301-436-6990

## 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:

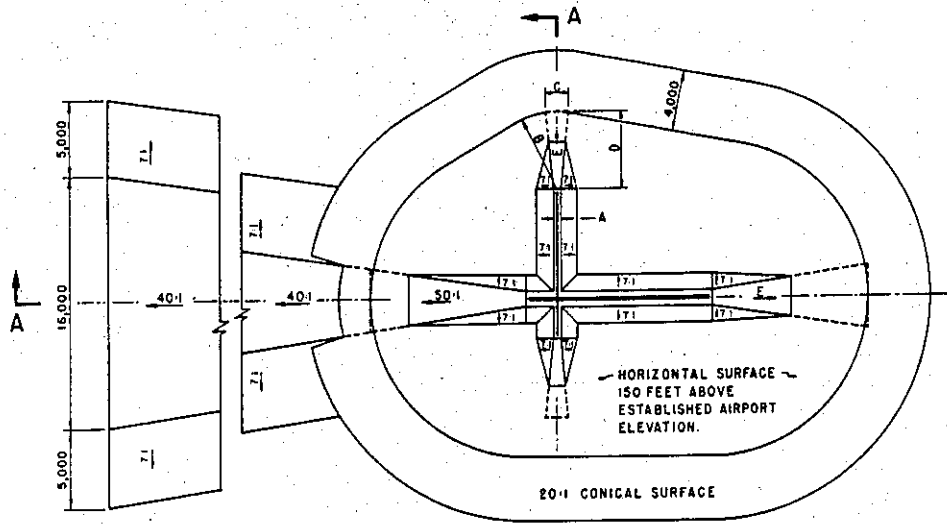
1. Objects located in FAR-77 approach (including supplemental approaches if present) or primary areas are listed with the associated runway (reference runway). For example, all objects in the Runway 9R approach or primary are listed with Runway 9R. Distances to these objects are computed from both the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

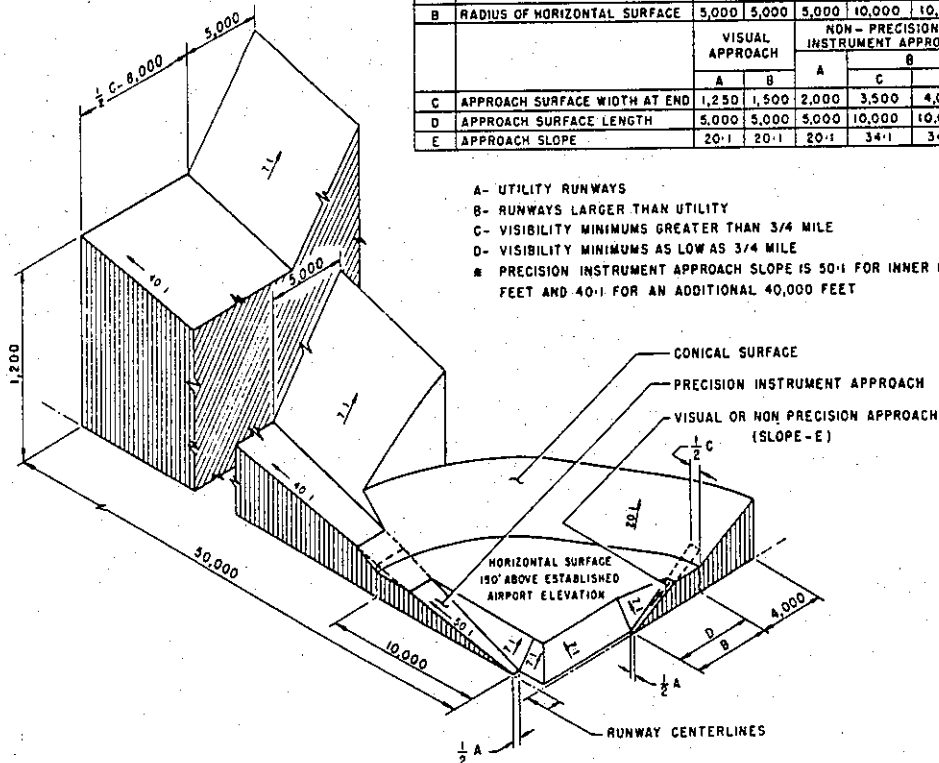
FAR-77 imaginary surface dimensions are defined on page 2 of this report.

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		
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	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

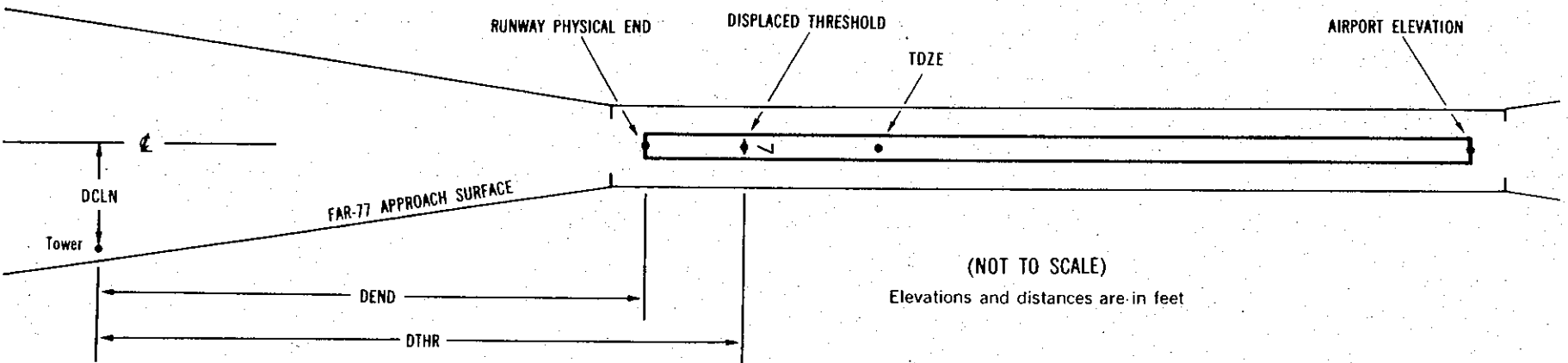
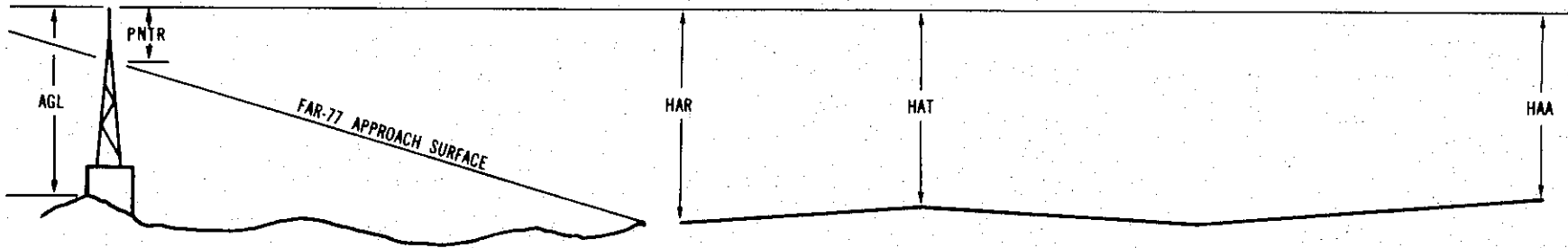
# ANNOTATION OF ODS DATA FORMAT

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).

OC5092

AIRPORT ELEVATION 1185

4 A(V) 1170/ 483345.549N 0932423.592W 2215423

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
BUSH	483353.93	0932414.29	1A	1177		7		-8	-1050		102L	4
BUSH	483346.74	0932419.30	1A	1175		5		-10	-282		134R	3
BUSH	483346.73	0932423.61	1A	1174		4		-11	-88		81L	4
TREE	483343.76	0932428.89	1A	1173		3		-12	372		144L	-6
TREE	483337.21	0932435.95	1A	1209		39		24	1184		54L	-10

22 A(V) 1181/ 483407.573N 0932353.811W 0415445

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
BUSH	483346.73	0932423.61	1A	1174		-7		-11	-2911		81R	4
BUSH	483346.74	0932419.30	1A	1175		-6		-10	-2717		134L	3
BUSH	483353.93	0932414.29	1A	1177		-4		-8	-1949		102R	4
TREE	483411.04	0932349.36	1A	1200		19		15	462		12R	6
TREE	483413.06	0932348.80	1A	1227		46		42	639		121R	24
POLE	483412.67	0932347.66	1A	1211		30		26	661		37R	7
TREE	483411.70	0932345.74	1A	1227		46		42	674		124L	22

OC5092

AIRPORT ELEVATION 1185

13 C 1185/1185 483422.470N 0932445.019W 3155325

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
WINDSOCK	483335.57	0932340.82	1A	1170		-15	-15	-15	-6419		207R	6
OL ON GLIDE SLOPE	483341.34	0932353.14	1A	1202		17	17	17	-5422		395R	36
OL ON LIGHTED WINDSOCK	483355.09	0932359.60	1A	1202		17	17	17	-4119		262L	31
OL ON ANEMOMETER	483357.00	0932413.79	1A	1195		10	10	10	-3315		288R	20
BUSH	483409.59	0932432.14	1A	1187		2	2	2	-1540		286R	9
BUSH	483411.00	0932430.85	1A	1181		-4	-4	-4	-1498		125R	2
BUSH	483422.22	0932449.62	1A	1191		6	6	6	197		240R	6
OL LOCALIZER	483428.05	0932453.18	1A	1188		3	3	3	788		1R	-14
ANTENNA ON BUILDING	483426.77	0932456.37	1A	1206		21	21	21	845		245R	2
TREE	483427.75	0932503.43	1A	1235		50	50	50	1246		517R	19
POLE	483429.25	0932504.34	1A	1214		29	29	29	1398		455R	-6
TREE	483429.61	0932505.99	1A	1224		39	39	39	1501		508R	1
TREE	483431.01	0932505.87	1A	1228		43	43	43	1597		404R	2
TREE	483437.31	0932501.38	1A	1219		34	34	34	1846		257L	-14
TREE	483442.45	0932459.22	1A	1222		37	37	37	2119		724L	-19



OC5092

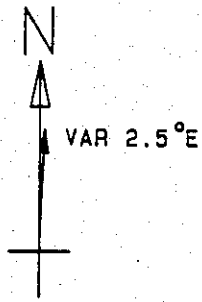
AIRPORT ELEVATION 1185

31 PIR 1164/1174 483336.357N 0932337.686W 1355415

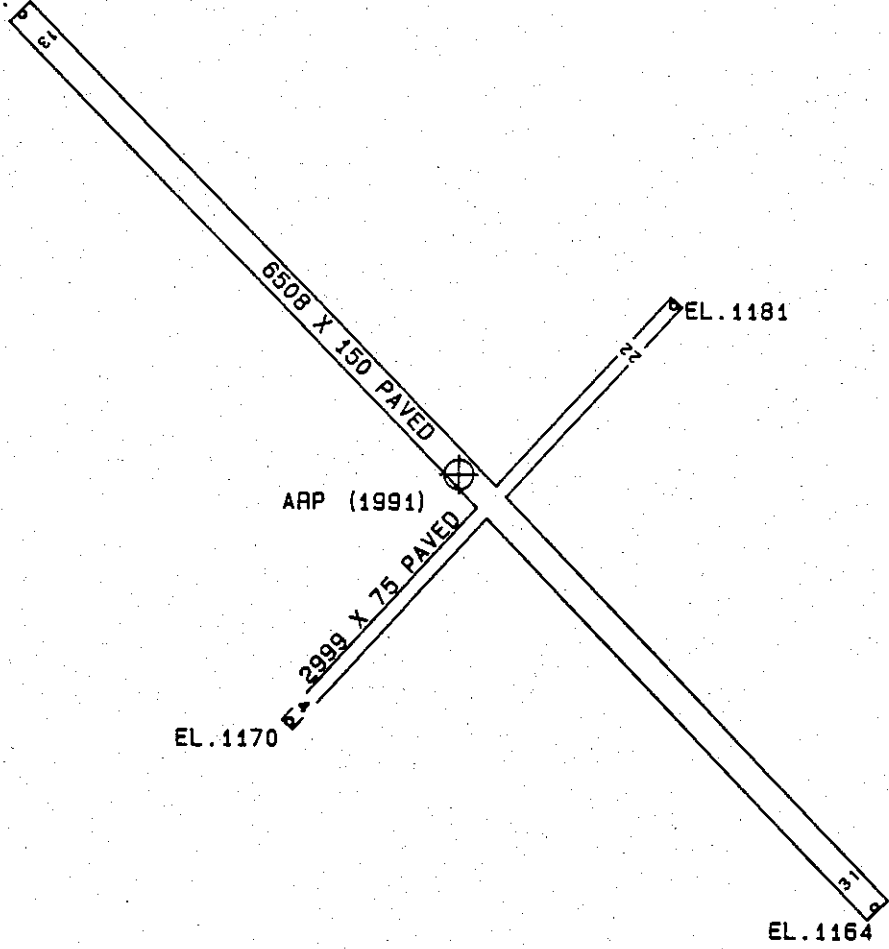
OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
BUSH	483422.22	0932449.62	1A	1191		27	17	6	-6705		240L	6
BUSH	483411.00	0932430.85	1A	1181		17	7	-4	-5010		125L	2
BUSH	483409.59	0932432.14	1A	1187		23	13	2	-4968		286L	9
OL ON ANEMOMETER	483357.00	0932413.79	1A	1195		31	21	10	-3193		288L	20
OL ON LIGHTED WINDSOCK	483355.09	0932359.60	1A	1202		38	28	17	-2389		262R	31
OL ON GLIDE SLOPE	483341.34	0932353.14	1A	1202		38	28	17	-1086		395L	36
WINDSOCK	483335.57	0932340.82	1A	1170		6	-4	-15	-89		207L	6
TREE	483336.38	0932327.52	1A	1178		14	4	-7	474		493R	9
BUILDING	483322.71	0932326.23	1A	1177		13	3	-8	1530		409L	-14
ROAD (N)	483327.79	0932309.47	1A	1195		31	21	10	1944		760R	-4
TREE	483321.25	0932259.43	1A	1233		69	59	48	2890		784R	15
TREE	483311.37	0932306.15	1A	1219		55	45	34	3295		238L	-7

## AIRPORT ELEVATION 1185

OBJECT	LAT	LONG	A	ELEV	AGL	HAA	MAG BEARING	DISTANCE
VORTAC	483357.13	0932419.92	1A	1208		23	255 0	648
OL ON ANTENNA	483357.66	0932420.46	1A	1217		32	260 7	675
BUSH	483350.55	0932420.98	1A	1178		-7	218 35	1071
WINDSOCK ON HANGAR	483400.59	0932353.21	1A	1213		28	77 14	1183
WINDSOCK ON HANGAR	483408.25	0932400.41	1A	1209		24	32 3	1198
RADAR DOME	483353.00	0932349.70	1A	1207		22	109 15	1507
WINDSOCK ON OL APBN	483357.36	0932347.90	1A	1224		39	91 54	1525
TREE	483412.33	0932353.64	1A	1232		47	36 31	1803
TREE	483412.60	0932351.24	1A	1232		47	39 45	1928
TREE	483343.91	0932429.70	1A	1186		1	218 35	1963
TREE	483407.43	0932436.62	1A	1225		40	294 44	1974
POLE	483409.92	0932346.37	1A	1213		28	52 3	1994
TREE	483340.57	0932424.87	1A	1199		14	205 28	2059
TREE	483407.00	0932341.56	1A	1227		42	63 40	2129
TREE	483411.03	0932344.60	1A	1231		46	51 28	2155
TREE	483337.21	0932427.09	1A	1213		28	204 49	2430
TREE	483337.00	0932429.61	1A	1208		23	208 1	2531
TREE	483412.40	0932448.01	1A	1242		57	296 40	2888
TREE	483342.09	0932328.96	1A	1223		38	118 16	3253
TREE	483328.74	0932342.16	1A	1232		47	145 12	3570
TREE	483435.51	0932443.74	1A	1222		37	326 43	4365
TREE	483424.17	0932503.07	1A	1236		51	303 50	4388
TREE	483330.81	0932311.64	1A	1222		37	122 50	4855
TREE	483318.47	0932330.09	1A	1217		32	143 40	4885
TREE	483328.63	0932307.32	1A	1232		47	122 57	5220
TREE	483323.93	0932257.94	1A	1233		48	123 10	6010
OL ON MICROWAVE TOWER	483556.64	0932703.08	2A	1391	261	206	313 25	16672
ANTENNA ON OL TOWER	483557.74	0932702.93	2A	1397	267	212	313 42	16745



ARPT ELEV. 1185 FT.



TOUCHDOWN ZONE	
RUNWAY ELEVATION	
13	1185
31	1174

FALLS INTERNATIONAL AIRPORT  
INTERNATIONAL FALLS, MINNESOTA  
(NOT TO SCALE)