

OBSTRUCTION DATA SHEET

ODS 5159
CHISHOLM - HIBBING AIRPORT
HIBBING, MINNESOTA

DIGITIZED FROM

OC 5159
SURVEYED SEPTEMBER 1989
7TH 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:

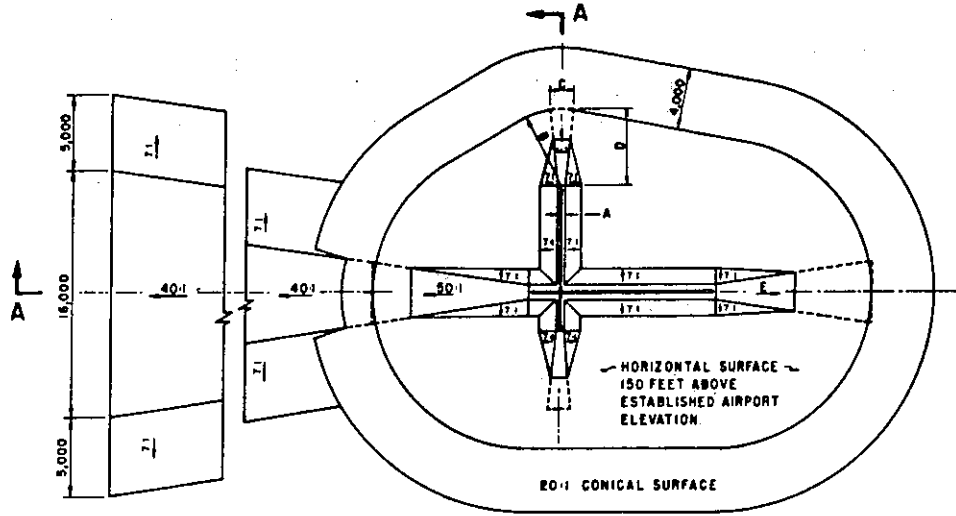
1. Objects located in FAR-77 approach (including supplemental approaches if present) or primary areas are listed with the associated runway (reference runway). For example, all objects in the Runway 9R approach or primary are listed with Runway 9R. Distances to these objects are computed from both the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

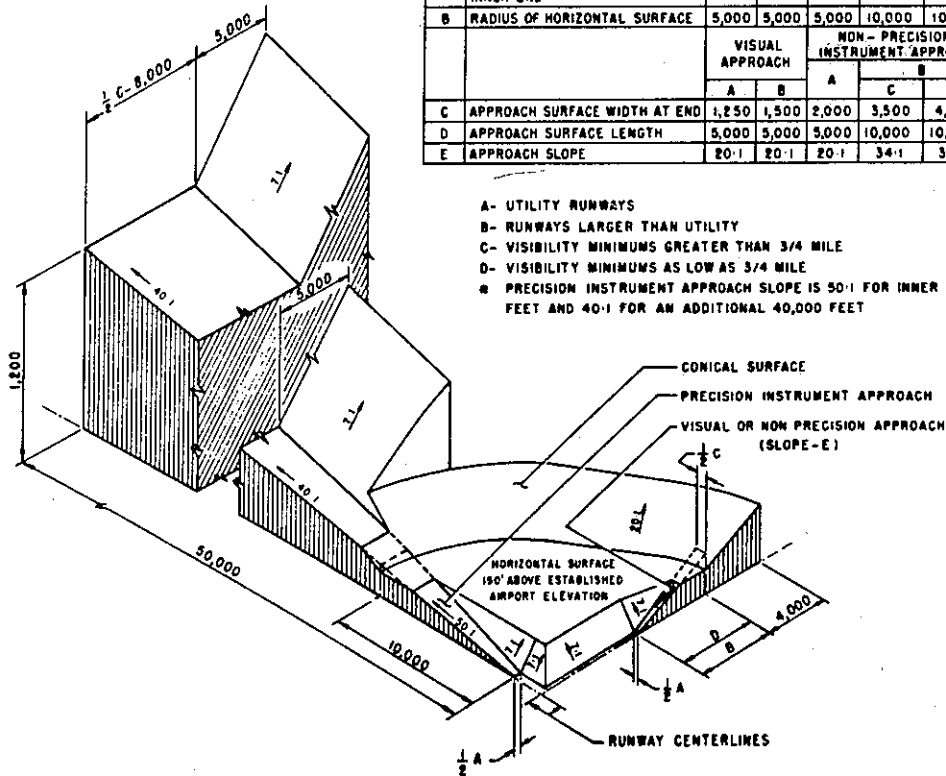
A(V) Utility runway - visual approach only
 A(NP) Utility runway - nonprecision instrument approach
 B(V) Nonutility runway - visual approach only
 C Nonutility runway - nonprecision instrument approach with
 visibility minimums greater than 3/4 mile
 D Nonutility runway - nonprecision instrument approach 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	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

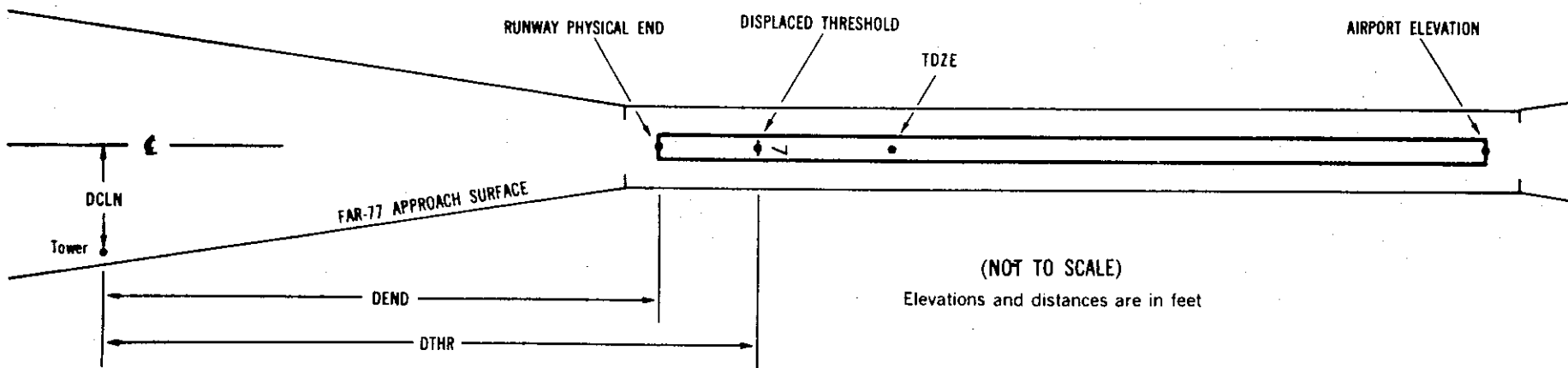
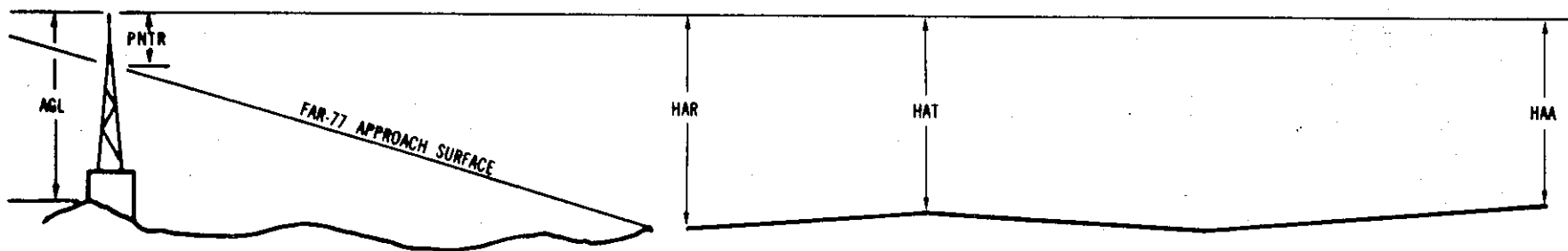
OC XXXX

AIRPORT ELEVATION XXXX

x¹ x² XXXX/XXXX³ XXXXXX.XXX⁴ XXXXXXXX.XXX⁴ XXXXXXXX⁵ XXXX/XXXX⁶ XXXXXX.XXX⁷ XXXXXXXX.XXX⁷

OBJECT LAT LONG A⁸ ELEV⁹ AGL¹⁰ HAR¹¹ HAT¹¹ HAA¹¹ DEND¹² DTHR¹² DCLN¹² PNTR¹³

XXXXXXXXXXXX	XXXXXX.XXX	XXXXXXXXX.XXX	XX	XXXX	XXXX	XXX	XXX	XXX	XXXXXX	XXXXXX	XXXX	XXXX
XXXXXXXXXXXX	XXXXXX.XXX	XXXXXXXXX.XXX	XX	XXXX	XXXX	XXX	XXX	XXX	XXXXXX	XXXXXX	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 ± 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 1353

4 A(V) 1347/1350 472311.016N 0925047.025W 2292110

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
TREE	472309.28	0925053.82	1A	1385		38	35	32	469		171L	25
ROAD (N)	472307.62	0925052.84	1A	1357		10	7	4	528		0L	-6
TREE	472305.87	0925051.91	1A	1400		53	50	47	595		177R	33
TREE	472259.34	0925104.46	1A	1396		49	46	43	1681		116R	-25
TREE	472259.78	0925112.57	1A	1416		69	66	63	2075		281L	-25

22 A(V) 1350/1350 472330.782N 0925013.119W 0492135

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
ROAD (N)	472339.63	0924957.88	1A	1368		18	18	15	1380		2L	-41

13 C 1353/1353 472330.297N 0925051.365W 3121300

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
TREE	472249.04	0924937.65	1A	1348		-5	-5	-5	-6565		314L	11
OL ON GLIDE SLOPE	472249.46	0924955.38	1A	1390		37	37	37	-5633		475R	50
GROUND	472256.06	0925002.97	1A	1343		-10	-10	-10	-4797		331R	2
GROUND	472302.51	0925013.60	1A	1345		-8	-8	-8	-3817		339R	2
OL ON WINDSOCK	472327.12	0925036.80	1A	1374		21	21	21	-959		435L	23
OL ON LOCALIZER	472333.39	0925056.39	1A	1360		7	7	7	466		0R	-1
ANTENNA ON BUILDING	472334.95	0925054.52	1A	1364		11	11	11	478		203L	3
LIGHT STANDARD	472340.39	0925054.86	1A	1381		28	28	28	865		596L	8
ROAD (N)	472340.21	0925107.48	1A	1369		16	16	16	1496		1R	-22

31 1353/1353 472330.297N 0925051.365W 3121300

AIRPORT ELEVATION 1353

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AIRPORT ELEVATION 1353

31 PIR 1337/1343 472245.476N 0924938.646W 1321354

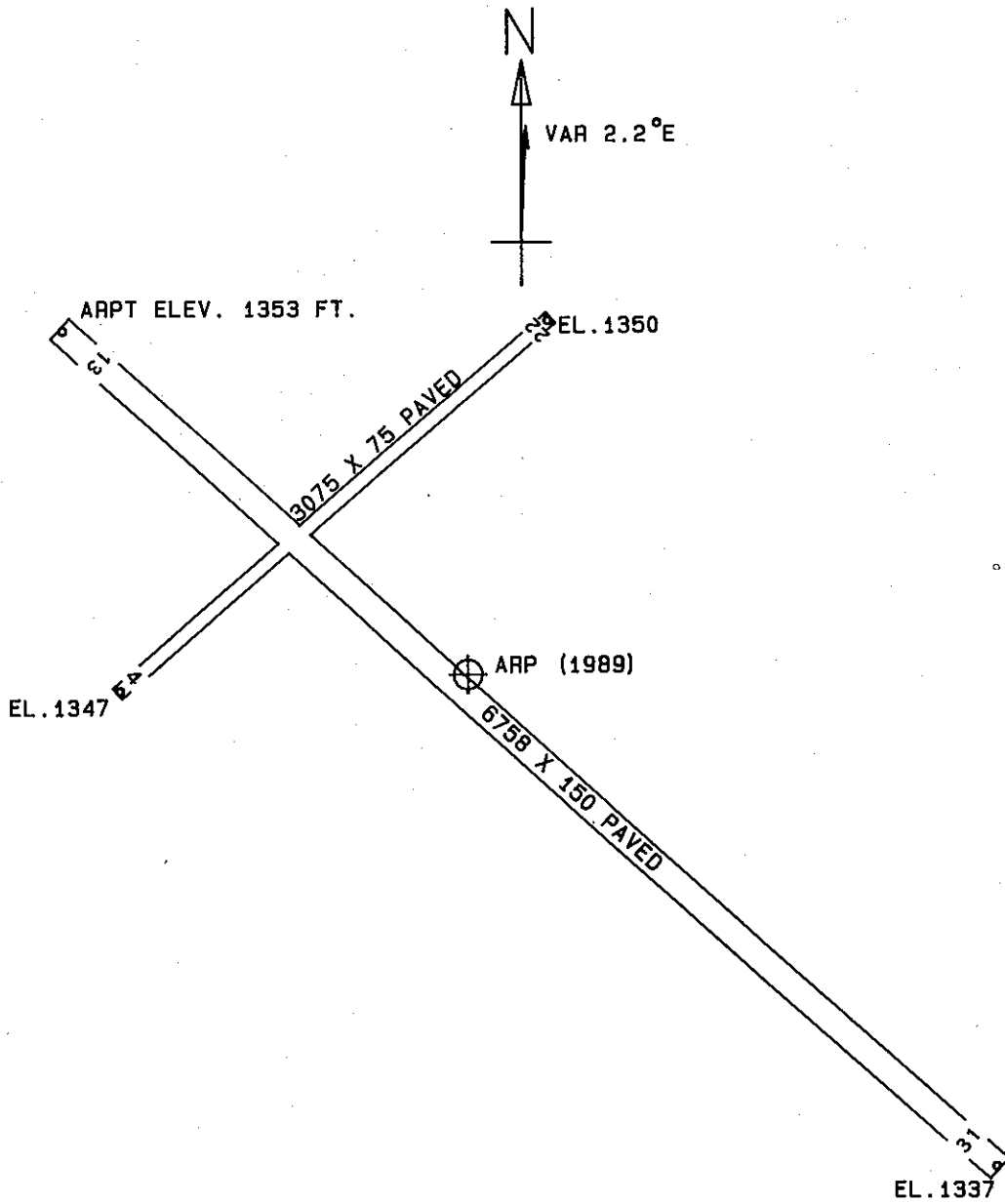
OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
OL ON WINDSOCK	472327.12	0925036.80	1A	1374		37	31	21	-5799		435R	23
GROUND	472302.51	0925013.60	1A	1345		8	2	-8	-2941		339L	2
GROUND	472256.06	0925002.97	1A	1343		6	0	-10	-1961		331L	2
OL ON GLIDE SLOPE	472249.46	0924955.38	1A	1390		53	47	37	-1124		475L	50
TREE	472249.04	0924937.65	1A	1348		11	5	-5	-192		314R	11
OL ON POLE	472242.32	0924919.78	1A	1398		61	55	45	1177		636R	41
TREE	472231.43	0924928.05	1A	1388		51	45	35	1497		564L	25
TREE	472218.56	0924913.67	1A	1393		56	50	40	3106		864L	-2
TREE	472229.25	0924858.64	1A	1400		63	57	47	3144		634R	4
TREE	472227.66	0924855.96	1A	1406		69	63	53	3389		639R	5
TREE	472220.71	0924903.70	1A	1404		67	61	51	3468		242L	2

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AIRPORT ELEVATION 1353

ARP 472311.957N 0925019.714W

OBJECT	LAT	LONG	A	ELEV	AGL	HAA	MAG BEARING	DISTANCE
TREE	472305.52	0925031.79	1A	1411		58	229 41	1056
TREE	472301.05	0925020.23	1A	1415		62	179 38	1105
TREE	472258.51	0925012.91	1A	1395		42	158 50	1440
TREE	472304.02	0924952.51	1A	1379		26	111 3	2037
ANTENNA ON POLE	472330.04	0925005.27	1A	1377		24	26 17	2084
TREE	472307.06	0925049.93	1A	1388		35	254 23	2138
LIGHT STANDARD	472332.28	0925032.87	1A	1414		61	334 5	2249
TREE	472310.87	0925053.88	1A	1389		36	265 8	2354
FLOODLIGHT	472332.24	0925038.27	1A	1387		34	325 57	2419
TREE	472301.25	0924946.97	1A	1393		40	113 30	2501
TREE	472259.90	0924943.85	1A	1408		55	114 7	2754
ROD ON OL AIRPORT BEACON	472338.66	0925032.78	1A	1411		58	339 25	2851
OL WIND VANE ON HANGAR	472336.97	0925041.66	1A	1403		50	327 1	2950
TREE	472304.74	0925103.45	1A	1387		34	254 9	3097
TREE	472326.24	0925100.33	1A	1395		42	295 11	3147
TREE	472251.35	0924929.33	1A	1385		32	118 51	4047
TREE	472248.61	0924931.21	1A	1362		9	123 7	4092
TREE	472237.04	0924944.89	1A	1392		39	143 41	4274
TREE	472232.83	0924938.33	1A	1392		39	142 6	4881
TREE	472242.52	0924917.72	1A	1419		66	122 45	5206
TREE	472239.30	0924911.88	1A	1404		51	123 7	5722
TREE	472234.84	0924900.68	1A	1415		62	122 27	6613
TREE	472217.47	0924914.59	1A	1399		46	138 43	7111



TOUCHDOWN ZONE RUNWAY ELEVATION	
4	1350
22	1350
13	1353
31	1343

CHISHOLM-HIBBING AIRPORT
 HIBBING, MINNESOTA
 (NOT TO SCALE)