

OBSTRUCTION DATA SHEET

ODS 632
YELLOWSTONE AIRPORT
WEST YELLOWSTONE, MONTANA

DIGITIZED FROM

OC 632
SURVEYED JULY 1989
6TH 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:

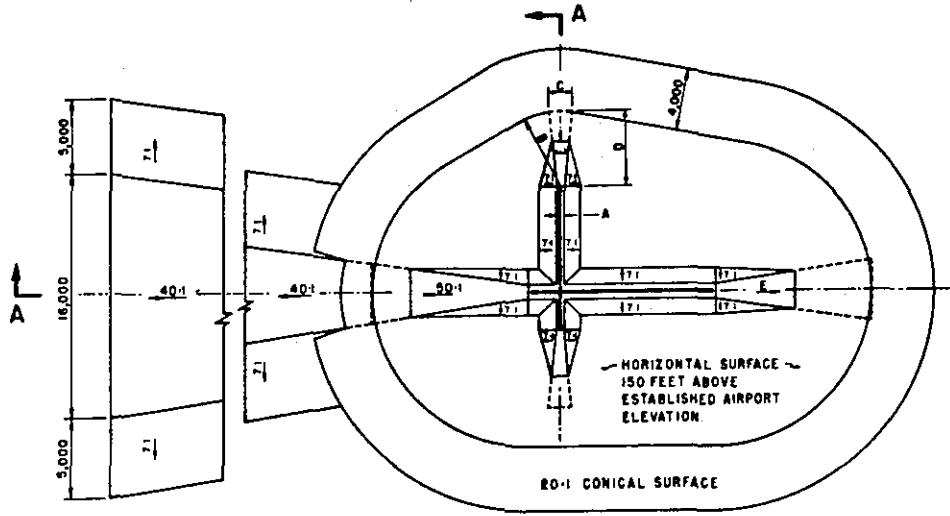
1. Objects located in FAR-77 approach (including supplemental approaches if present) or primary areas are listed with the associated runway (reference runway). For example, all objects in the Runway 9R approach or primary are listed with Runway 9R. Distances to these objects are computed from both the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

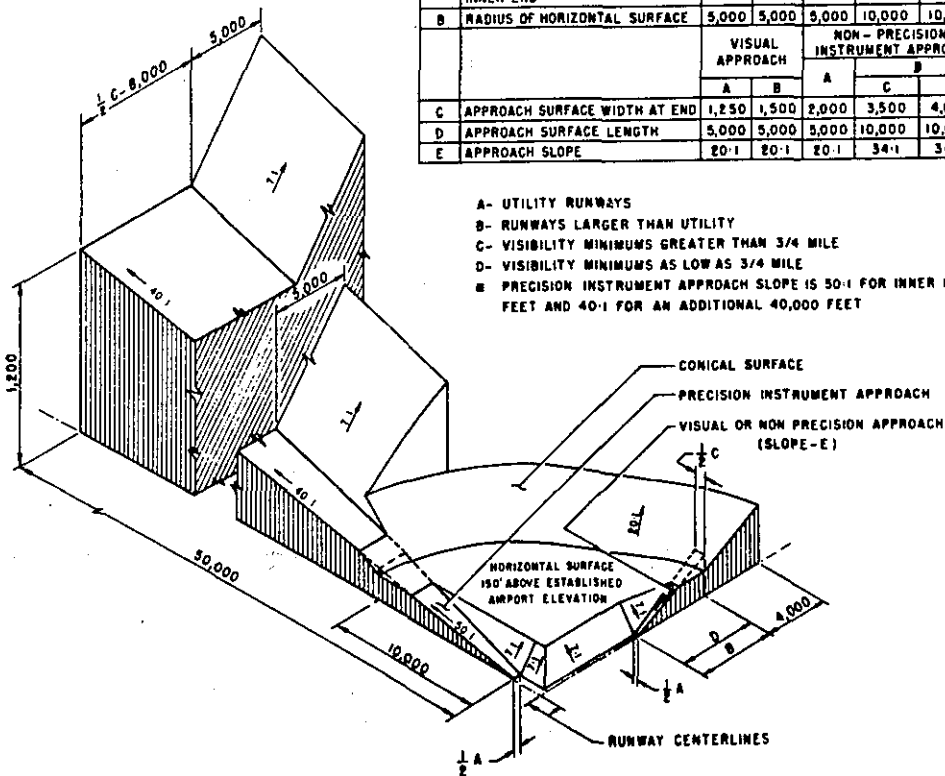
FAR-77 imaginary surface dimensions are defined on page 2 of this report.

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
C	APPROACH SURFACE WIDTH AT END	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
- E- 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

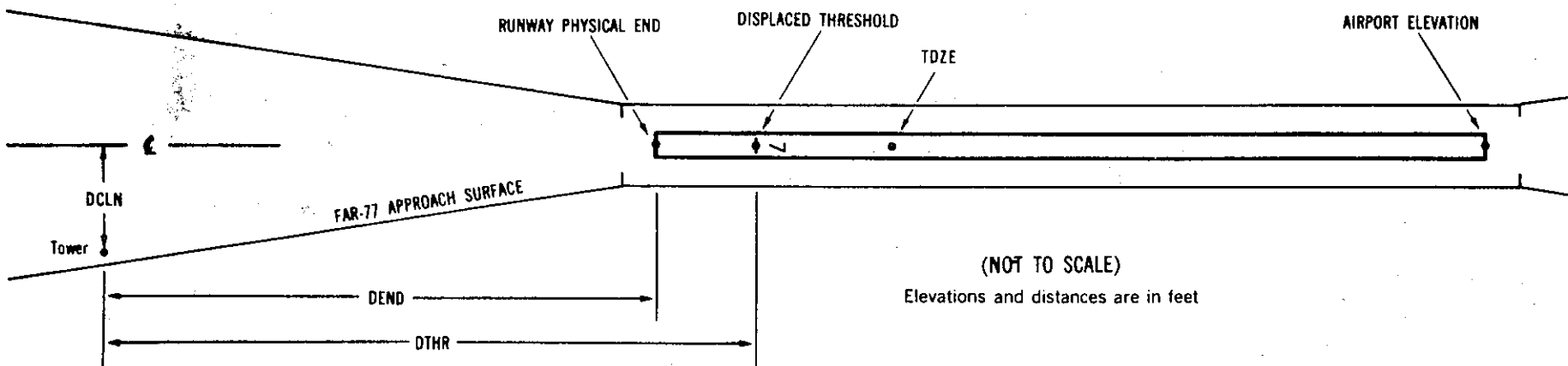
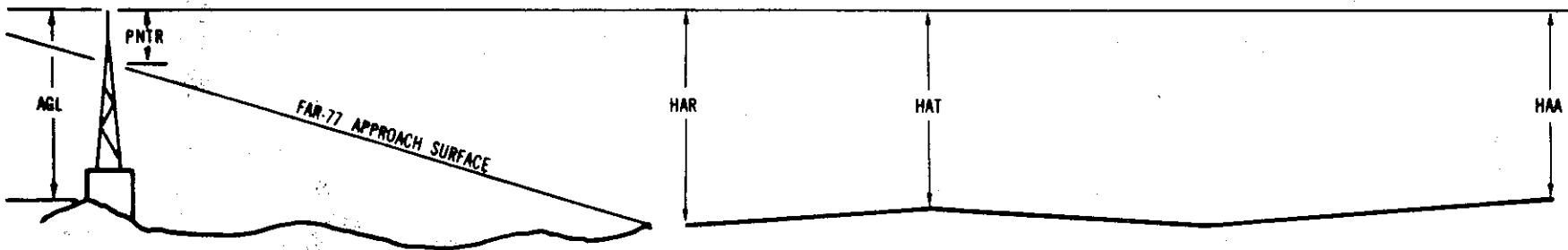
FAR-77 CIVIL AIRPORT
IMAGINARY SURFACES

ANNOTATION OF ODS DATA FORMAT

OC XXXX

AIRPORT ELEVATION XXXX

x ¹	x ²	XXXX/XXXX ³	XXXXXX.XXX ⁴	XXXXXXXX.XXX ⁴	XXXXXXXX ⁵	XXXX/XXXX ⁶	XXXXXX.XXX ⁷	XXXXXXXX.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).

OC0632

AIRPORT ELEVATION 6644

1 PIR 6643/6644 444041.321N 1110726.420W 2061558

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
FENCE POST	444158.85	1110637.40	1A	6630		-13	-14	-14	-8608		299L	1
FENCE	444157.04	1110638.83	1A	6630		-13	-14	-14	-8398		311L	1
FENCE	444132.03	1110655.99	1A	6631		-12	-13	-13	-5578		302L	-3
OL ON LIGHTED WINDSOCK	444120.65	1110707.00	1A	6664		21	20	20	-4192		504L	28
FENCE	444107.31	1110713.03	1A	6638		-5	-6	-6	-2789		298L	0
OL GLIDE SLOPE	444051.71	1110725.41	1A	6673		30	29	29	-976		400L	32
TREE	444029.42	1110729.79	1A	6661		18	17	17	1188		315R	-2
POLE	444012.66	1110743.24	1A	6683		40	39	39	3141		194R	-19
TREE	444004.73	1110752.13	1A	6714		71	70	70	4145		26L	-8
TREE	443740.30	1111026.69	2C	7154		511	510	510	22205		3581L	11
TREE	443554.34	1110931.35	2C	7360		717	716	716	30061		4754R	20
TREE	443422.57	1111340.17	2C	7791		1148	1147	1147	46355		7296L	44

19 C 6629/6633 444155.669N 1110634.977W 0261634

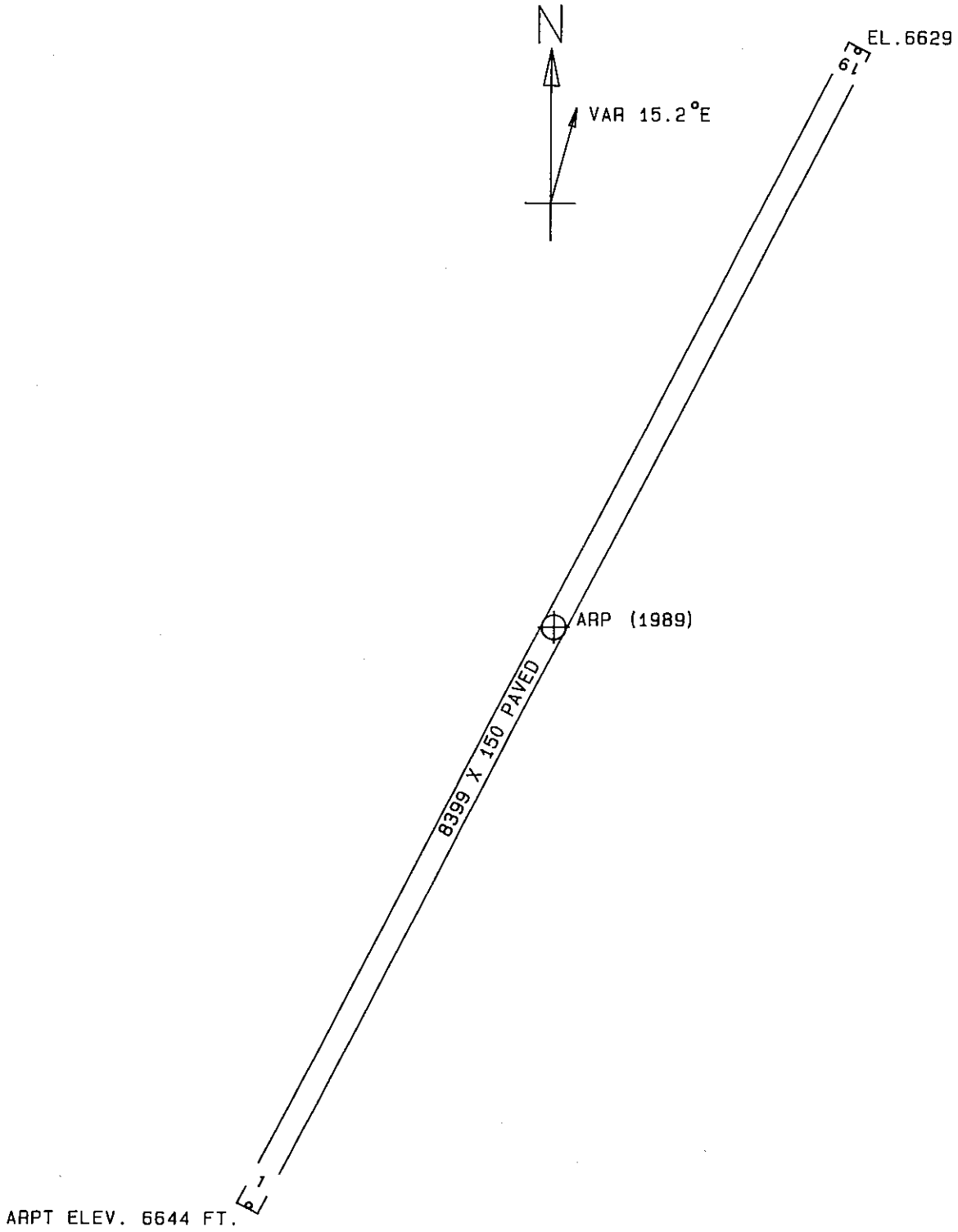
OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
OL GLIDE SLOPE	444051.71	1110725.41	1A	6673		44	40	29	-7421		400R	32
FENCE	444107.31	1110713.03	1A	6638		9	5	-6	-5608		298R	0
OL ON LIGHTED WINDSOCK	444120.65	1110707.00	1A	6664		35	31	20	-4204		504R	28
FENCE	444132.03	1110655.99	1A	6631		2	-2	-13	-2819		302R	-3
FENCE	444157.04	1110638.83	1A	6630		1	-3	-14	1		311R	1
FENCE POST	444158.85	1110637.40	1A	6630		1	-3	-14	211		299R	1
TREE	444158.41	1110627.21	1A	6636		7	3	-8	497		380L	-2
TREE	444201.78	1110636.13	1A	6636		7	3	-8	518		349R	-2
TREE	444159.56	1110623.36	1A	6641		12	8	-3	725		578L	-3

OC0632

AIRPORT ELEVATION 6644

ARP 444118.496N 1110700.703W

OBJECT	LAT	LONG	A	ELEV	AGL	HAA	MAG BEARING	DISTANCE
POLE	444112.42	1110650.86	1A	6683		39	115 38	940
POLE	444124.17	1110712.17	1A	6695		51	289 35	1008
OL AIR BEACON	444108.60	1110652.89	1A	6705		61	135 24	1150
TREE	444057.37	1110658.97	1A	6695		51	161 27	2144
TREE	444131.38	1110636.19	1A	6690		46	38 25	2200
TREE	444053.00	1110706.06	1A	6690		46	173 19	2611
POST	444141.52	1110635.41	1A	6637		-7	22 53	2963
WINDSOCK	444146.63	1110631.27	1A	6657		13	21 32	3555
OL BUILDING	444142.58	1110624.33	1A	6688		44	31 56	3585
TREE	444153.22	1110625.00	1A	6662		18	21 3	4361
TREE	444043.56	1110741.91	1A	6711		67	204 53	4624
TREE	444040.53	1110737.50	1A	6666		22	199 28	4675
TREE	444039.49	1110736.67	1A	6665		21	198 9	4728
TREE	444157.64	1110624.98	1A	6642		-2	17 52	4730
TREE	444038.67	1110744.01	1A	6705		61	202 36	5105
TREE	444034.35	1110745.35	1A	6690		46	200 37	5513
TREE	444033.55	1110750.16	1A	6715		71	202 57	5787
OL WATER TANK	444006.69	1110623.29	1B	6784		140	144 24	7758
TREE	443852.79	1110742.97	1B	6824		180	176 30	15069
OL RADIO MAST	443856.29	1110551.25	2A	6916	250	272	145 35	15251
TREE	443851.05	1110954.32	1B	6968		324	204 52	19504
TREE	443825.00	1111008.47	1B	7254		610	202 30	22201
TREE	443551.17	1110924.10	2C	7418		774	182 11	34733



TOUCHDOWN ZONE RUNWAY ELEVATION	
1	6644
19	6633

YELLOWSTONE AIRPORT
 WEST YELLOWSTONE, MONTANA
 (NOT TO SCALE)