OBSTRUCTION DATA SHEET

ODS 6781
LAUREL MUNICIPAL AIRPORT
LAUREL, MONTANA

DIGITIZED FROM

OC 6781
SURVEYED JULY 1989
1ST 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).

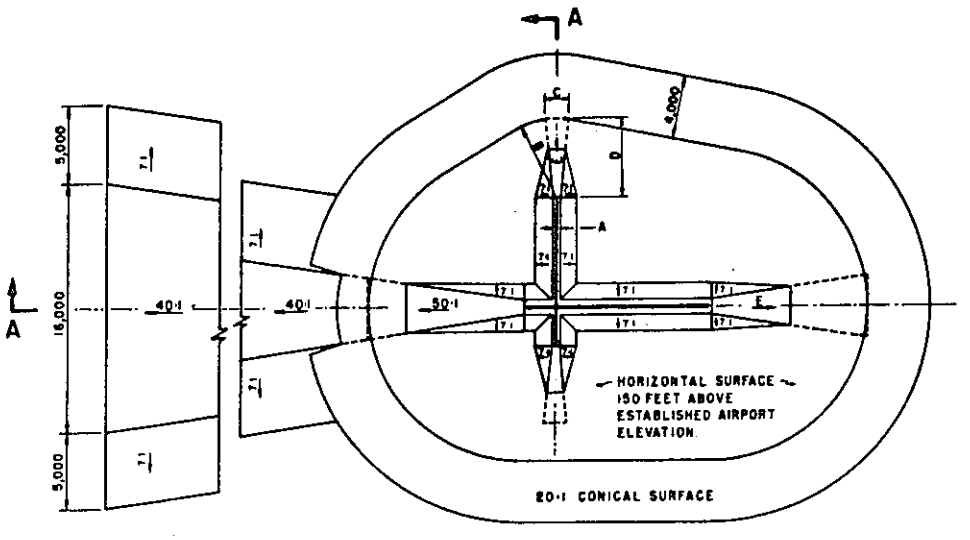
3. Runway configuration and runway lengths, widths, and elevations are presented on the ODS last page.

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)

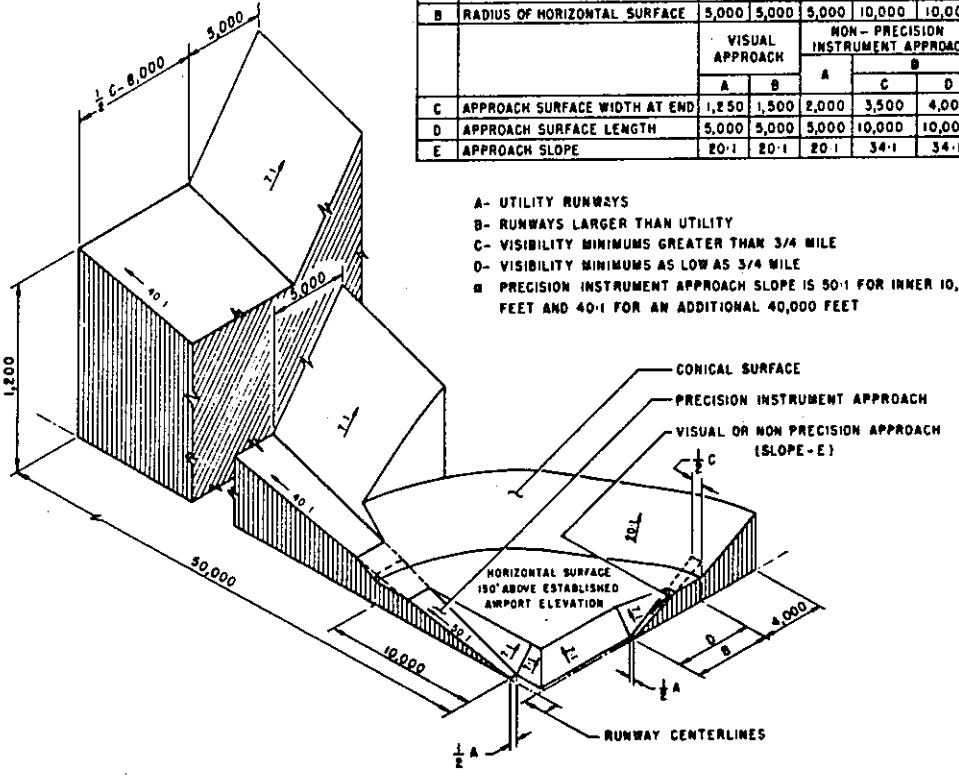
FAR-77 imaginary surface dimensions are defined on page 2 of this report.

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		
					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	B		
					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[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]
XXXXXXXXXX	XXXXXX.XXX	XXXXXXX.XXX	XX	XXXX	XXXX	XXX	XXX	XXX	XXXXX	XXXXX	XXXX	XXXX
XXXXXXXXXX	XXXXXX.XXX	XXXXXXX.XXX	XX	XXXX	XXXX	XXX	XXX	XXX	XXXXX	XXXXX	XXXX	XXXX

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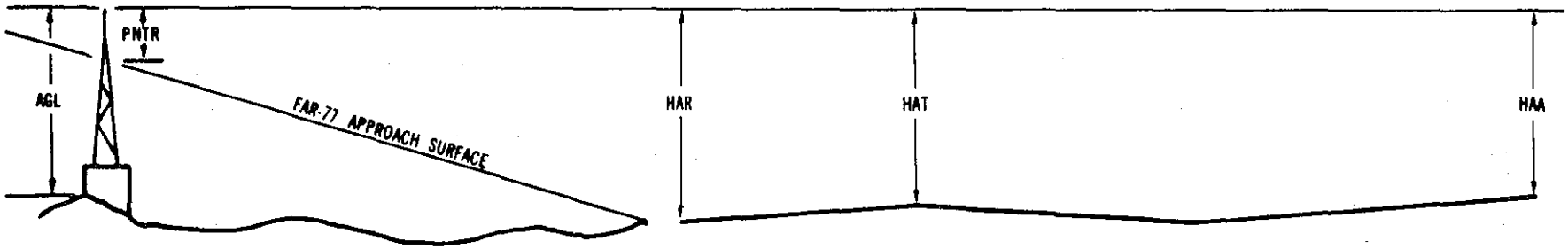

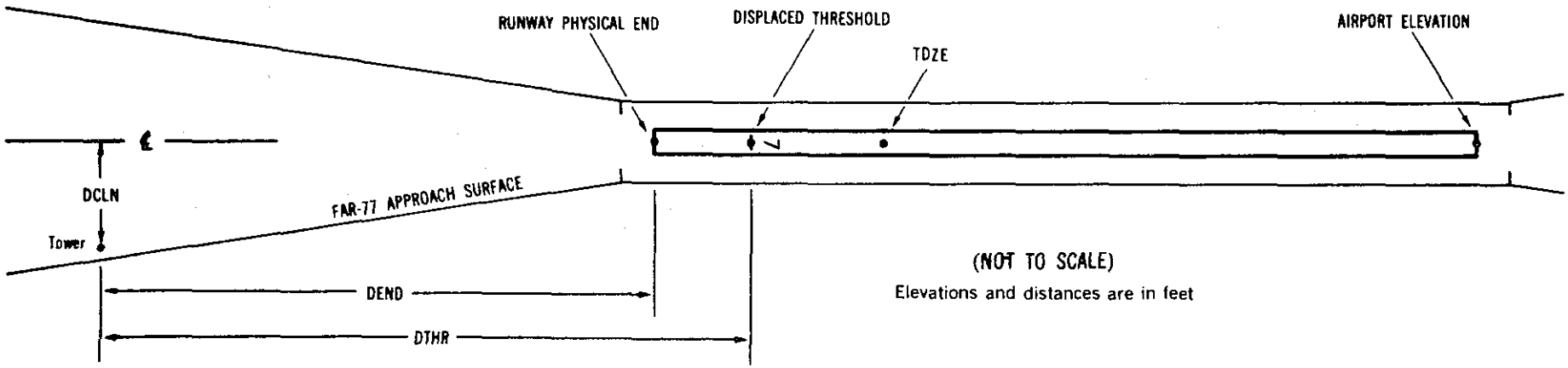

(NOT TO SCALE)

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).

OC6781

AIRPORT ELEVATION 3515

3 A(V) 3479/3479 454203.376N 1084546.979W 2301459

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
WINDSOCK	454222.69	1084510.67	1A	3461		-18	-18	-54	-3232		144R	1
POST	454209.72	1084530.67	1A	3480		1	1	-35	-1301		247R	7
LIGHT STANDARD	454207.22	1084534.86	1A	3490		11	11	-25	-910		251R	14
GROUND	454202.96	1084548.47	1A	3479		0	0	-36	108		35L	0
GROUND	454202.53	1084549.64	1A	3480		1	1	-35	200		55L	1

21 A(NP) 3458/3477 454227.411N 10845 5.730W 0501528

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
GROUND	454202.53	1084549.64	1A	3480		22	3	-35	-4008		55R	1
GROUND	454202.96	1084548.47	1A	3479		21	2	-36	-3916		35R	0
LIGHT STANDARD	454207.22	1084534.86	1A	3490		32	13	-25	-2897		251L	14
POST	454209.72	1084530.67	1A	3480		22	3	-35	-2507		247L	7
WINDSOCK	454222.69	1084510.67	1A	3461		3	-16	-54	-575		144L	1
FENCE POST	454231.47	1084504.83	1A	3461		3	-16	-54	312		275R	-3

OC6781

AIRPORT ELEVATION 3515

13 A(V) 3515/ 454215.892N 1084557.122W 3321440 3514/ 454215.643N 1084556.935W

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
POLE	454151.08	1084536.79	1A	3473		-42		-42	-2896	-2868	107L	24
ROAD (N)	454150.87	1084538.43	1A	3462		-53		-53	-2861	-2832	6R	13
GATE POST	454151.45	1084538.19	1A	3453		-62		-62	-2817	-2788	36L	4
POLE	454151.08	1084540.32	1A	3476		-39		-39	-2780	-2751	115R	27
WINDSOCK	454153.22	1084541.88	1A	3482		-33		-33	-2537	-2508	112R	29
GROUND	454155.35	1084543.06	1A	3457		-58		-58	-2307	-2278	86R	-1
GROUND	454159.07	1084543.35	1A	3469		-46		-46	-1963	-1934	72L	3
GROUND	454202.96	1084548.47	1A	3479		-36		-36	-1445	-1417	67R	0
GROUND	454205.85	1084548.75	1A	3485		-30		-30	-1177	-1149	52L	0
GROUND	454214.41	1084554.61	1A	3509		-6		-6	-216	-187	88L	0
GROUND	454215.83	1084556.13	1A	3514		-1		-1	-39	-10	59L	0
GROUND	454215.03	1084558.46	1A	3516		1		1	-33	-5	125R	2
FENCE POST	454216.83	1084555.95	1A	3517		2		2	45	74	118L	2
GROUND	454215.87	1084559.05	1A	3518		3		3	62	90	122R	3
FENCE POST	454216.82	1084559.76	1A	3525		10		10	171	199	122R	10

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AIRPORT ELEVATION 3515

31 A(V) 3449/ 454151.858N 1084539.074W 1521453 3459/ 454156.345N 1084542.443W

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
FENCE POST	454216.82	1084559.76	1A	3525		76		10	-2921	-2408	122L	10
GROUND	454215.87	1084559.05	1A	3518		69		3	-2813	-2299	122L	3
FENCE POST	454216.83	1084555.95	1A	3517		68		2	-2796	-2283	118R	2
GROUND	454215.03	1084558.46	1A	3516		67		1	-2718	-2204	125L	2
GROUND	454215.83	1084556.13	1A	3514		65		-1	-2712	-2199	59R	0
GROUND	454214.41	1084554.61	1A	3509		60		-6	-2535	-2021	88R	0
GROUND	454205.85	1084548.75	1A	3485		36		-30	-1574	-1060	52R	0
GROUND	454202.96	1084548.47	1A	3479		30		-36	-1306	-792	67L	0
GROUND	454159.07	1084543.35	1A	3469		20		-46	-788	-275	72R	3
GROUND	454155.35	1084543.06	1A	3457		8		-58	-444	69	86L	-1
WINDSOCK	454153.22	1084541.88	1A	3482		33		-33	-214	299	112L	29
POLE	454151.08	1084540.32	1A	3476		27		-39	29	542	115L	27
GATE POST	454151.45	1084538.19	1A	3453		4		-62	66	580	36R	4
ROAD (N)	454150.87	1084538.43	1A	3462		13		-53	110	623	6L	13
POLE	454151.08	1084536.79	1A	3473		24		-42	145	659	107R	24
TREE	454149.81	1084536.52	1A	3489		40		-26	268	781	64R	37
TREE	454149.29	1084537.45	1A	3500		51		-15	284	798	19L	47
TREE	454148.76	1084536.42	1A	3504		55		-11	365	879	21R	47

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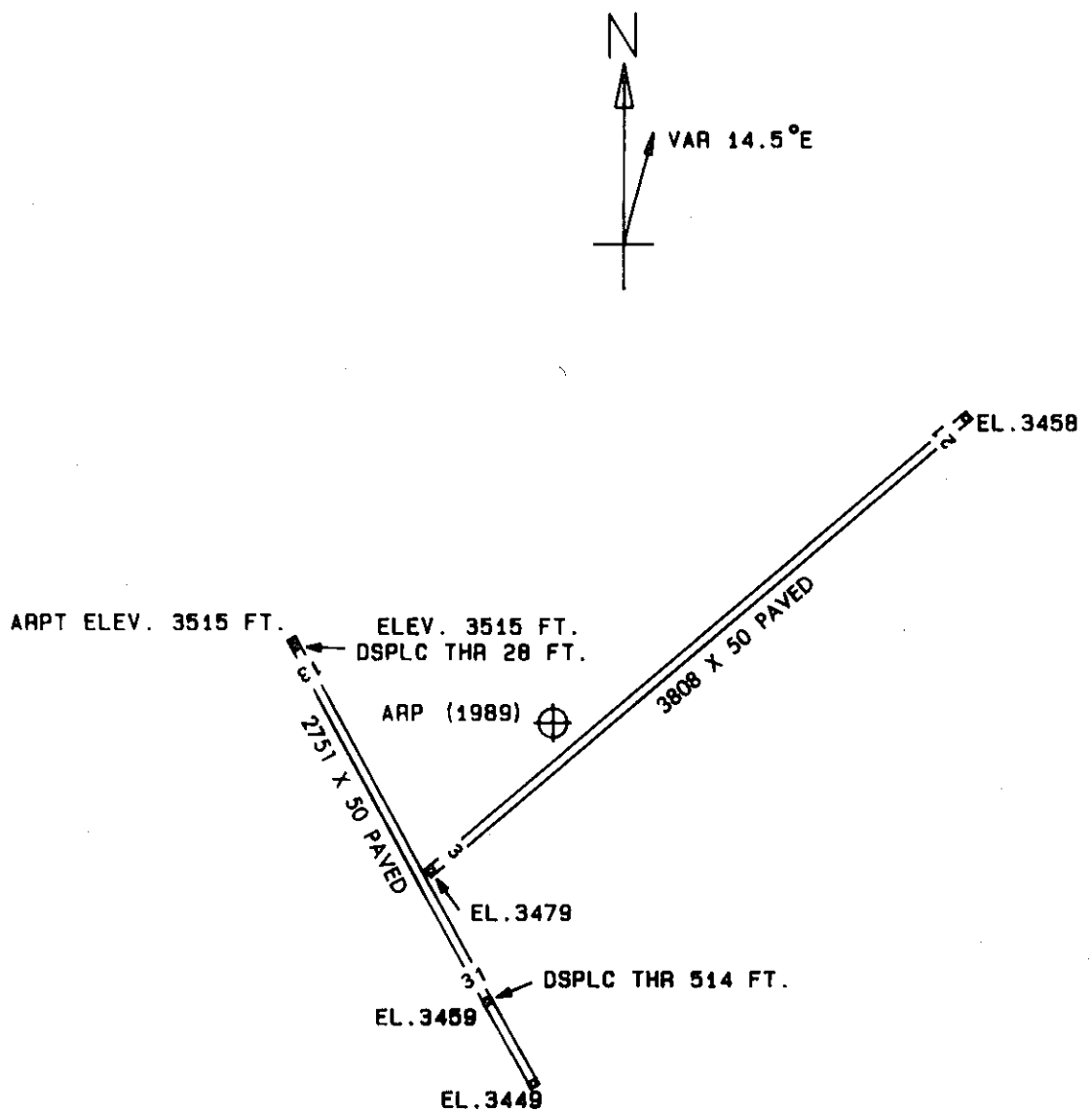
AIRPORT ELEVATION 3515

ARP 454211.309N 1084537.420W

OBJECT	LAT	LONG	A	ELEV	AGL	HAA	MAG BEARING	DISTANCE
FENCE CORNER	454211.90	1084538.40	1A	3481		-34	296 14	92
FENCE POST	454214.91	1084533.23	1A	3477		-38	24 39	471
FENCE POST	454217.31	1084529.13	1A	3471		-44	29 35	846
ROD ON AIRPORT BEACON	454202.08	1084538.57	1A	3530		15	170 31	938
WINDSOCK	454212.38	1084522.69	1A	3483		-32	69 33	1051
OL ON LIGHTED WINDSOCK	454200.78	1084539.27	1A	3491		-24	172 30	1074
FENCE POST	454220.91	1084522.93	1A	3468		-47	32 5	1416
LIGHT STANDARD	454151.64	1084541.58	1A	3474		-41	173 57	2014
TREE	454148.48	1084539.57	1A	3481		-34	169 17	2318
TREE	454146.82	1084538.14	1A	3504		-11	166 41	2481
FENCE POST	454228.61	1084509.72	1A	3465		-50	33 48	2633
BUSH	454258.59	1084611.43	1B	3743		228	318 45	5363
BUSH	454306.55	1084551.27	1B	3742		227	335 32	5681
FENCE POST	454312.25	1084605.38	2C	3745		230	327 41	6484
BUSH	454230.52	1084713.09	2C	3747		232	271 30	7063
FENCE POST	454322.65	1084538.64	2C	3745		230	344 49	7227
FENCE POST	454259.31	1084652.97	2C	3750		235	297 43	7238
GROUND	454309.34	1084639.41	2C	3746		231	308 42	7342
FENCE POST	454242.14	1084727.01	1A	3751		236	277 23	8381



TOUCHDOWN ZONE RUNWAY	ELEVATION
3	3479
21	3477

LAUREL MUNICIPAL AIRPORT

LAUREL, MONTANA

(NOT TO SCALE)