OBSTRUCTION

DATA SHEET

ODS 5677
FORT COLLINS - LOVELAND MUNICIPAL AIRPORT
FORT COLLINS - LOVELAND, COLORADO

DIGITIZED FROM

OC 5677
SURVEYED AUGUST 1991
4TH EDITION

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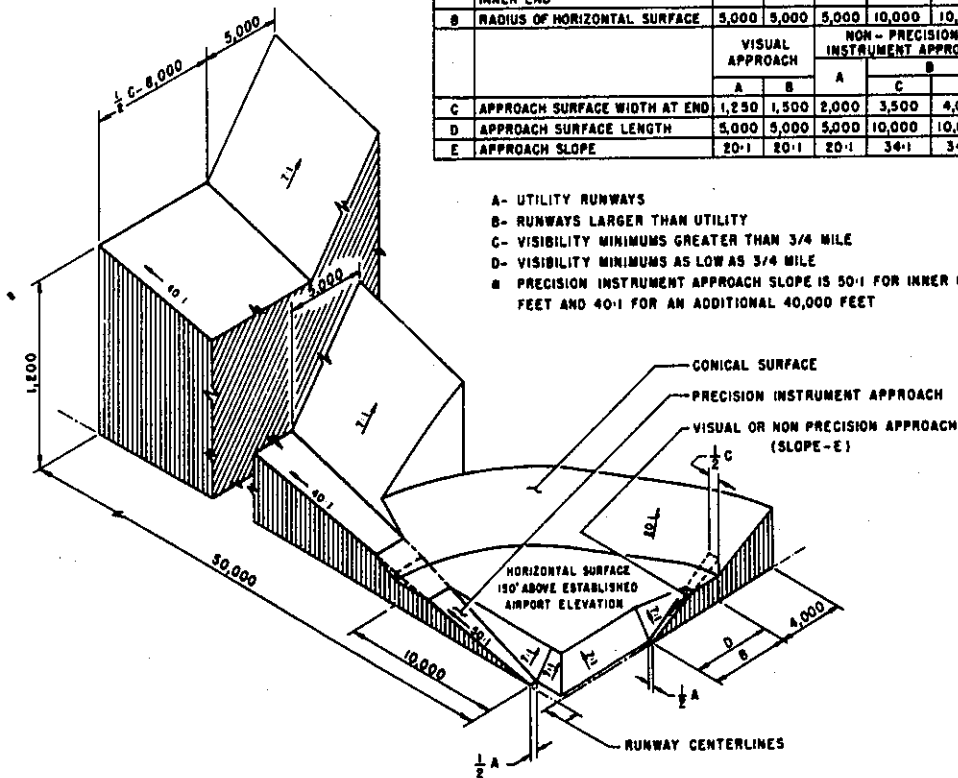
FAR-77 imaginary surface dimensions are defined on page 2 of this report.

Primary surface width is determined by the widest approach at the two approach/primary interfaces for that runway.

HORIZONTAL SURFACE
150 FEET ABOVE
ESTABLISHED AIRPORT
ELEVATION.

20:1 CONICAL SURFACE
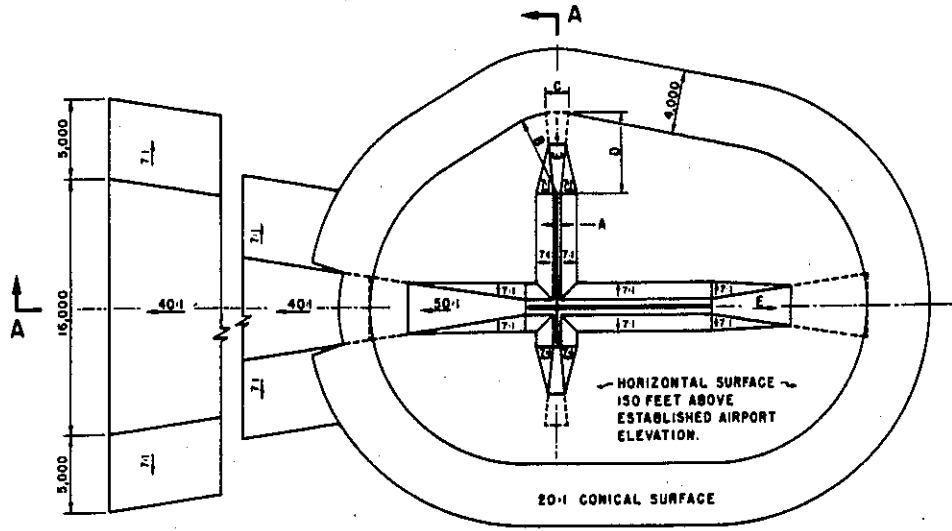
DIM	ITEM	DIMENSIONAL STANDARDS (FEET)					
		VISUAL RUNWAY		NON-PRECISION INSTRUMENT RUNWAY			PRECISION INSTRUMENT RUNWAY
		A	B	A	B		
					C	D	
A	WIDTH OF PRIMARY SURFACE AND APPROACH SURFACE WIDTH AT INNER END	250	500	500	500	1,000	1,000
B	RADIUS OF HORIZONTAL SURFACE	5,000	5,000	5,000	10,000	10,000	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

CONICAL SURFACE
PRECISION INSTRUMENT APPROACH
VISUAL OR NON PRECISION APPROACH
(SLOPE-E)

HORIZONTAL SURFACE
150' ABOVE ESTABLISHED
AIRPORT ELEVATION

RUNWAY CENTERLINES

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}
XXXXXXXXXXX	XXXXXX.XXX	XXXXXXX.XXX	XX	XXXX	XXXX	XXX	XXX	XXX	XXXXX	XXXXX	XXXX	XXXX
XXXXXXXXXXX	XXXXXX.XXX	XXXXXXX.XXX	XX	XXXX	XXXX	XXX	XXX	XXX	XXXXX	XXXXX	XXXX	XXXX

****

N

RUNWAY PHYSICAL END   DISPLACED THRESHOLD

TDZE

AIRPORT ELEVATION

DCLN

Tower

FAR-77 APPROACH SURFACE

DEND

DTHR

(NOT TO SCALE)
Elevations and distances are in feet

3
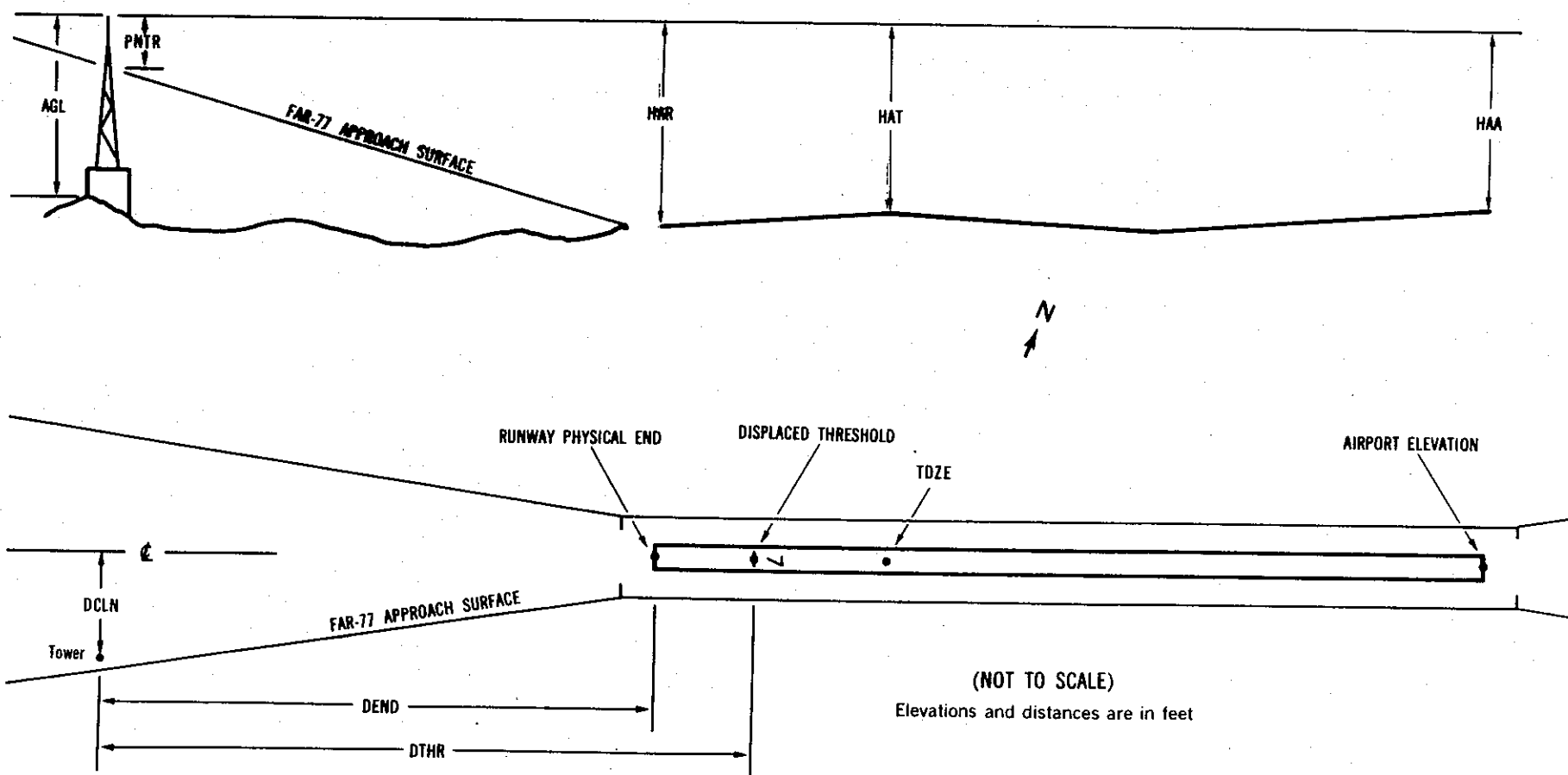
EXPLANATION OF FOOTNOTES

[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).

AIRPORT ELEVATION 5016

6   A(V) 4990/   402710.138N   1050039.741W   2503655

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
GROUND	402716.69	1050010.86	1A	4988		-2		-28	-2326		115R	1
GROUND	402716.32	1050013.23	1A	4991		1		-25	-2141		90R	4
GROUND	402716.72	1050018.14	1A	4987		-3		-29	-1797		74L	1
GROUND	402715.25	1050017.76	1A	4988		-2		-28	-1775		76R	2

24   A(V) 4987/   402717.591N   1050012.011W   0703713

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
GROUND	402715.25	1050017.76	1A	4988		1		-28	-497		76L	2
GROUND	402716.72	1050018.14	1A	4987		0		-29	-476		74R	1
GROUND	402716.32	1050013.23	1A	4991		4		-25	-131		90L	4
GROUND	402716.69	1050010.86	1A	4988		1		-28	54		115L	1

15   C 4973/4985   402744.272N   10501 0.776W   3402600

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
GROUND	402626.37	1050017.41	1A	5018		45	33	2	-8551		519L	2
OL ON GLIDE SLOPE	402633.52	1050032.67	1A	5043		70	58	27	-7474		350R	31
OL ON LIGHTED WINDSOCK	402647.45	1050040.98	1A	5023		50	38	7	-5930		484R	18
POLE	402750.24	1050110.97	1A	4995		22	10	-21	832		540R	3
TREE	402754.92	1050058.65	1A	5025		52	40	9	960		516L	30
ANTENNA ON BUILDING	402753.18	1050108.52	1A	4977		4	-8	-39	1050		263R	-21
OL ON LOCALIZER	402754.08	1050105.32	1A	4974		1	-11	-42	1053		1L	-24
POLE	402755.77	1050104.23	1A	4989		16	4	-27	1186		138L	-13
POLE	402755.94	1050107.98	1A	4990		17	5	-26	1299		129R	-15
TREE	402758.82	1050111.11	1A	5002		29	17	-14	1654		260R	-14

AIRPORT ELEVATION 5016

33   PIR 5016/5016   402625.144N   1050023.969W   1602624

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
OL ON LIGHTED WINDSOCK	402647.45	1050040.98	1A	5023		7	7	7	-2568		484L	18
OL ON GLIDE SLOPE	402633.52	1050032.67	1A	5043		27	27	27	-1024		350L	31
GROUND	402626.37	1050017.41	1A	5018		2	2	2	53		519R	2
ROD ON BUILDING	402614.24	1050024.74	1A	5021		5	5	5	1020		425L	-11

ARP   402706.640N   1050038.889W

OBJECT	LAT	LONG	A	ELEV	AGL	HAA	MAG BEARING		DISTANCE
WINDSOCK	402659.17	1050031.33	1A	5012		-4	131	6	956
FLOODLIGHT POLE	402659.04	1050026.04	1A	5047		31	116	31	1256
OL ANEMOMETER	402655.06	1050030.02	1A	5030		14	138	29	1358
ROD OL AIRPORT BEACON	402635.23	1050013.81	1A	5089		73	137	25	3723
TREE	402744.90	1050048.15	1A	5025		9	338	19	3937
POLE	402737.32	1050110.90	1A	5023		7	310	15	3970
ANTENNA ON BUILDING	402740.57	1050109.58	1A	4999		-17	314	9	4174
POLE	402740.84	1050111.02	1A	5014		-2	313	8	4260
POLE	402747.45	1050110.99	1A	4994		-22	317	48	4818
TREE	402754.03	1050057.06	1A	5019		3	332	28	4997
OL ON WATER SPHERE	402608.68	1045825.07	1B	5212		196	108	20	11893

EL.4973

N

VAR 11.2°E
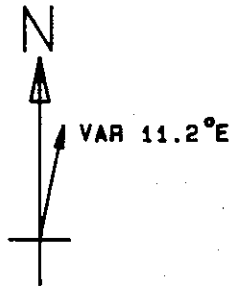
EL.4987

2273 X 40 PAVED

8500 X 100 PAVED

EL.4990
ARP (1991)

33

ARPT ELEV. 5016 FT.

TOUCHDOWN ZONE
RUNWAY ELEVATION
15   4985
33   5016

FORT COLLINS - LOVELAND MUNICIPAL AIRPORT

FORT COLLINS - LOVELAND, COLORADO

(NOT TO SCALE)