OBSTRUCTION DATA SHEET

ODS 725
NORWOOD MEMORIAL AIRPORT
NORWOOD, MASSACHUSETTS

DIGITIZED FROM

OC 725
SURVEYED JULY 1993
4TH EDITION

HORIZONTAL DATUM NAD 83
VERTICAL DATUM NGVD 29

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FOR THE FEDERAL AVIATION ADMINISTRATION

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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 No. 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 the 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 an FAR-77 approach or primary and listed with the associated runway (reference runway).

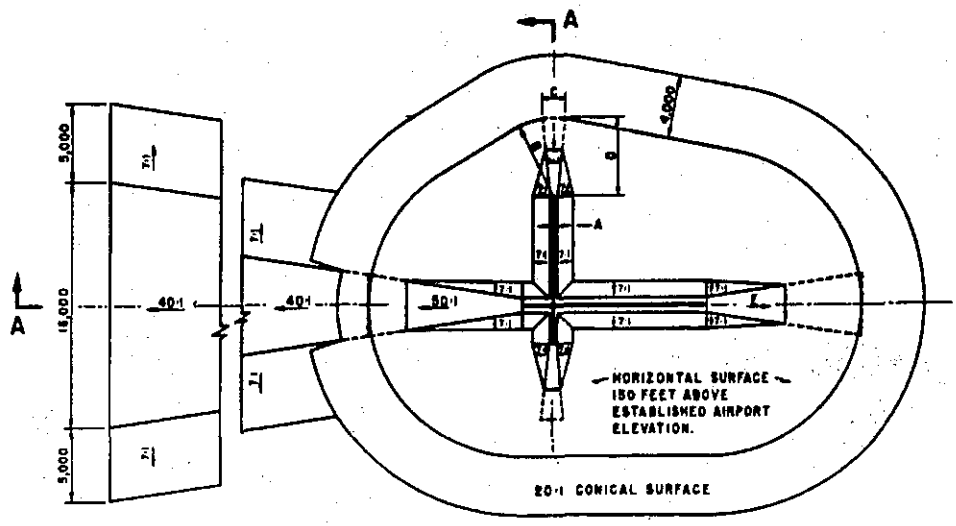
2. All objects not included in "1" above are listed with the Airport Reference Point (ARP).

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:

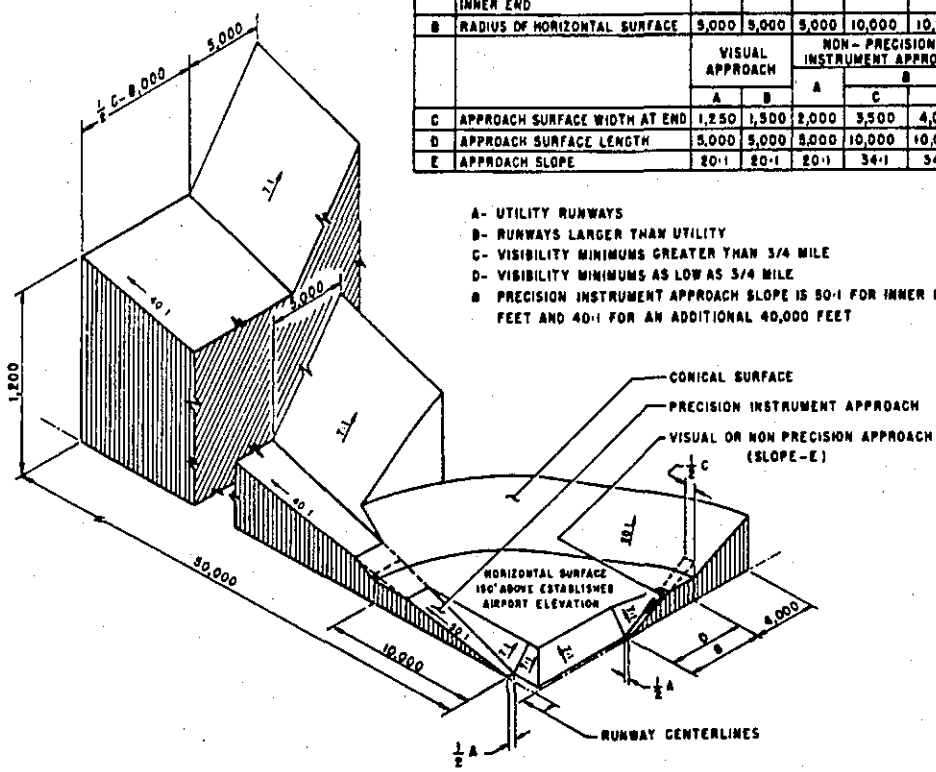
A(V) ..... Utility runway - visual approach only
A(NP) .... Utility runway - nonprecision instrument approach
B(V) ..... Nonutility runway - visual approach only
C ..... Nonutility runway - nonprecision instrument approach with visibility minimums greater than 3/4 mile
D ..... Nonutility runway- nonprecision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



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]
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

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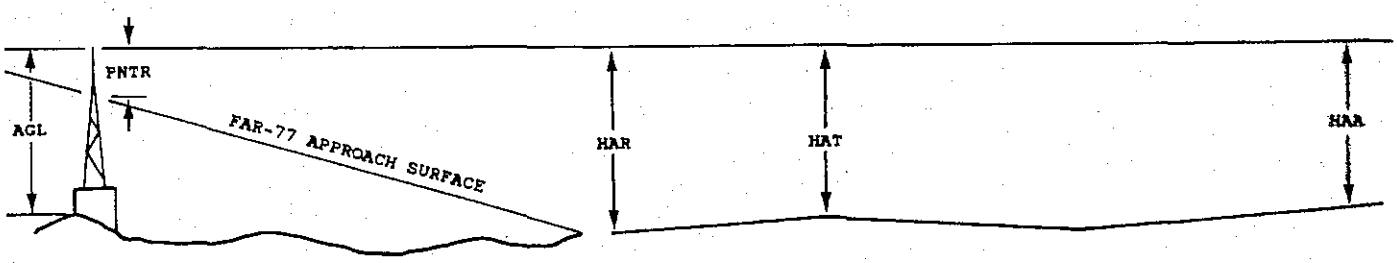

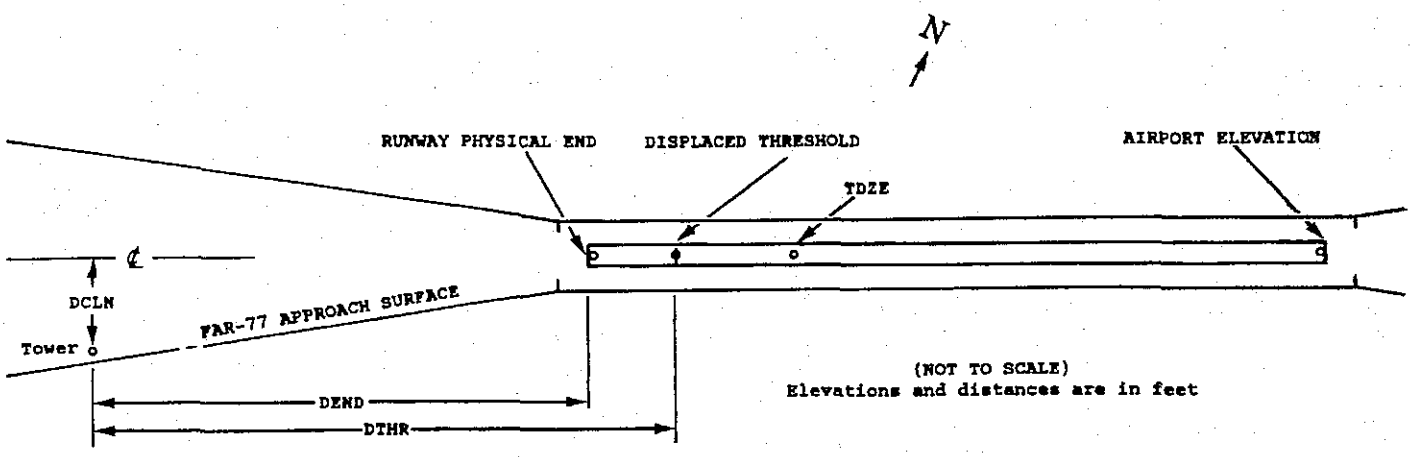

EXPLANATION OF FOOTNOTES

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 areas 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 Elevation at approach end of reference runway/touchdown zone elevation

4 Latitude and longitude at approach end of reference runway

5 Geodetic azimuth of reference runway reckoned from north

6 Elevation at reference runway displaced threshold/touchdown zone elevation

7 Latitude and longitude at reference runway displaced threshold

8 Accuracy codes:

Horizontal (Ft.)	Vertical (Ft.)
1 = 20	A = 2
2 = 40	B = 5
	C = 20

9 Elevation above mean sea level (MSL) 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). AGL's are provided only for manmade objects <u>appearing on the OC</u> and equal to or greater than 200 feet AGL. AGL accuracy is 10 feet.

11 HAA - Height above airport
HAR - Height above approach end of reference runway
HAT - Height above reference runway touchdown zone elevation

12 DEND - Distance along reference runway centerline from point nearest to object (perpendicular) to approach end of runway
DTHR - Distance along reference runway centerline from point nearest to object (perpendicular) to displaced 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 that object is in primary 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 50

10 AV 49/ 421131.606 -711042.684 884521. 48/ 48 421131.818 -711029.575

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
TREE	421132.37	-711043.92	1A	79		30	31	29	92	1079	79L	30
TREE	421130.98	-711044.29	1A	85		36	37	35	122	1109	61R	36
TREE	421131.83	-711045.99	1A	67		18	19	17	248	1236	28L	15
TREE	421131.24	-711047.25	1A	87		38	39	37	345	1332	29R	30
TREE	421130.01	-711049.61	1A	86		37	38	36	525	1512	150R	20
TREE	421132.70	-711050.57	1A	95		46	47	45	591	1578	124L	26
LT POLE	421129.74	-711051.97	1A	81		32	33	31	703	1690	174R	7
LT POLE	421130.92	-711052.77	1A	82		33	34	32	761	1748	53R	5
TREE	421133.18	-711053.13	1A	99		50	51	49	783	1770	176L	21
ANT ON BLDG	421132.55	-711055.88	1A	87		38	39	37	991	1978	117L	-2
POLE	421129.93	-711102.45	1A	103		54	55	53	1491	2479	137R	-11
LIGHT	421129.15	-711105.75	1A	127		78	79	77	1741	2728	211R	1
TREE	421131.72	-711105.85	1A	153		104	105	103	1743	2730	50L	27
TREE	421133.95	-711107.00	1A	166		117	118	116	1825	2812	277L	35
TREE	421129.42	-711115.01	1A	170		121	122	120	2437	3424	168R	9
ANT ON OL TWR	421133.06	-711141.55	1A	262		213	214	212	4427	5414	243L	1

28 AV 47/ 48 421132.461 -710949.543 2684556.

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
TREE	421130.98	-711044.29	1A	85		38	37	35	-4123		61L	36
TREE	421132.37	-711043.92	1A	79		32	31	29	-4093		79R	30
TREE	421133.72	-710946.82	1A	63		16	15	13	208		123R	16
TREE	421132.05	-710944.46	1A	71		24	23	21	382		50L	15
TREE	421133.89	-710942.28	1A	88		41	40	38	550		133R	24
TREE	421132.94	-710937.60	1A	93		46	45	43	900		29R	11
TREE	421130.97	-710932.76	1A	104		57	56	54	1260		178L	4
TREE	421133.14	-710927.77	1A	114		67	66	64	1640		34R	-5
TREE	421130.98	-710925.70	1A	120		73	72	70	1791		188L	-6

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AIRPORT ELEVATION 50

17 SUPLC 50/ 50 421139.615 -711041.569 1544557.

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
BUSH	421101.07	-711020.71	1A	62		12	12	12	-4199		243R	15
TREE	421104.89	-711016.25	1A	71		21	21	21	-3992		226L	24
BUSH	421103.94	-711022.44	1A	56		6	6	6	-3881		237R	9
TREE	421113.83	-711021.86	1A	74		24	24	24	-2994		229L	27
TREE	421121.65	-711026.61	1A	58		8	8	8	-2126		243L	10
TREE	421135.52	-711035.45	1A	95		45	45	45	-572		240L	46
TREE	421141.05	-711039.02	1A	73		23	23	23	49		236L	23
TREE	421142.68	-711040.08	1A	76		26	26	26	233		234L	25
ANT ON BLDG	421143.34	-711047.52	1A	61		11	11	11	532		244R	2
TREE	421146.07	-711042.21	1A	85		35	35	35	612		235L	23
OL ON LOC	421145.29	-711045.16	1A	56		6	6	6	635		1L	-6
TREE	421144.78	-711047.01	1A	88		38	38	38	647		148R	25
TREE	421148.17	-711043.10	1A	108		58	58	58	833		265L	40
TREE	421145.97	-711049.59	1A	87		37	37	37	840		272R	19
TREE	421149.23	-711044.71	1A	104		54	54	54	981		201L	31
TREE	421148.44	-711049.70	1A	99		49	49	49	1069		173R	24
TREE	421151.39	-711049.60	1A	110		60	60	60	1336		39R	27
TREE	421154.13	-711052.88	1A	108		58	58	58	1692		144R	15

35 C 47/ 49 421103.808 -711018.879 3344612.

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
TREE	421141.05	-711039.02	1A	73		26	24	23	-4056		236R	23
TREE	421135.52	-711035.45	1A	95		48	46	45	-3435		240R	46
TREE	421121.65	-711026.61	1A	58		11	9	8	-1881		243R	10
TREE	421113.83	-711021.86	1A	74		27	25	24	-1013		229R	27
BUSH	421103.94	-711022.44	1A	56		9	7	6	-126		237L	9
TREE	421104.89	-711016.25	1A	71		24	22	21	-15		226R	24
BUSH	421101.07	-711020.71	1A	62		15	13	12	192		243L	15
TREE	421102.95	-711014.67	1A	83		36	34	33	213		250R	36
TREE	421100.02	-711012.78	1A	90		43	41	40	543		252R	33
TREE	421044.32	-711009.68	1A	99		52	50	49	2080		214L	-3
TREE	421045.36	-711004.76	1A	105		58	56	55	2143		165R	1
TREE	420956.96	-710916.74	1A	197		150	148	147	8116		1349R	-83

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AIRPORT ELEVATION 50

ARP 421126.869 -711023.174

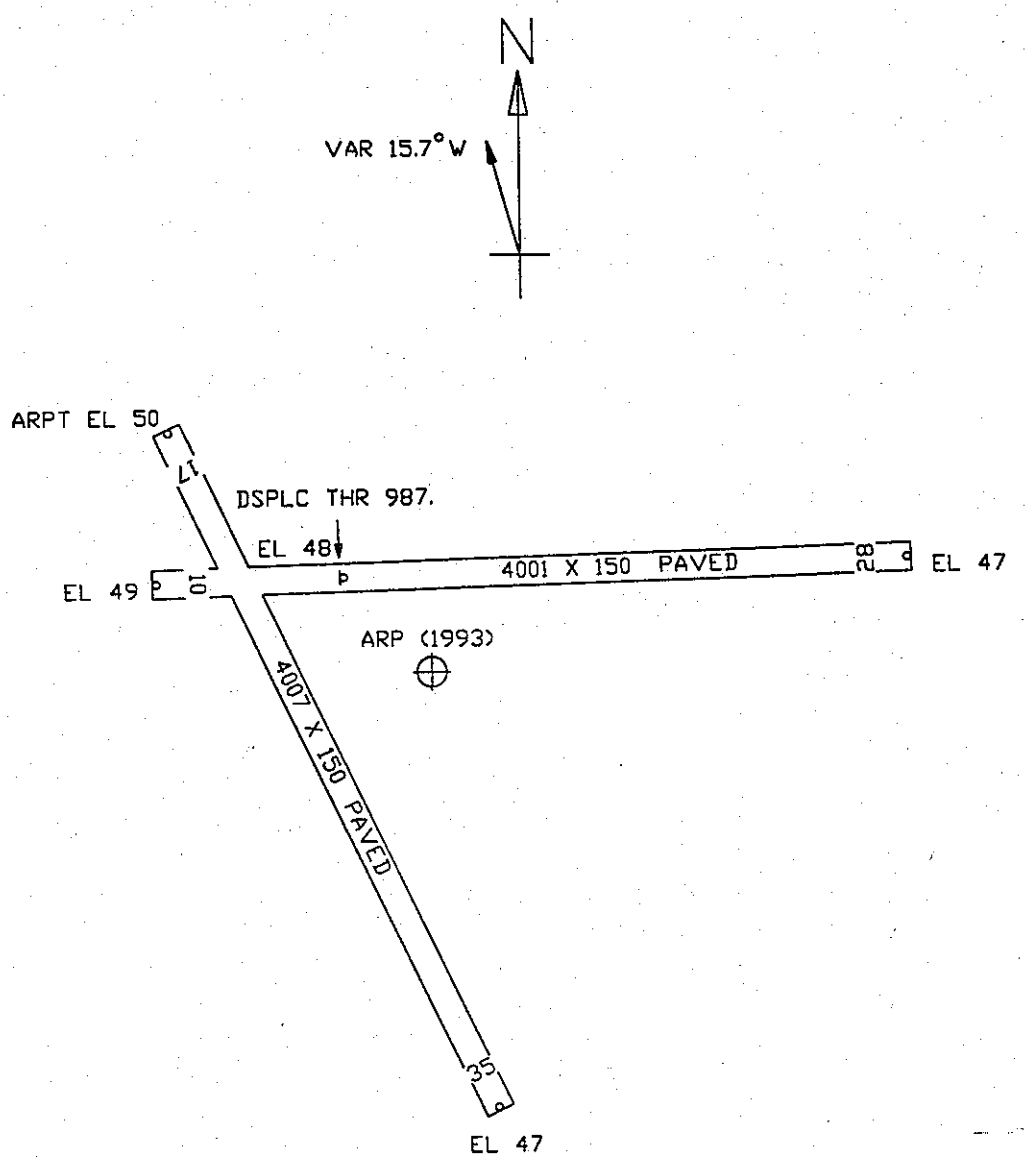
OBJECT	LAT	LONG	A	EL	AGL	HAA	MAG BEARING	DISTANCE
OL AMOM	421127.78	-711025.93	1A	69		19	30942	227
VISUAL GUIDE PANEL	421130.60	-711026.74	1A	55		5	34017	463
TREE	421128.07	-711030.38	1A	59		9	29822	556
TREE	421134.49	-711027.61	1A	94		44	35217	840
TREE	421134.68	-711015.86	1A	98		48	5033	963
TREE	421116.02	-711020.69	1A	87		37	18603	1114
OL ON WSK	421125.65	-711038.02	1A	73		23	27925	1124
TREE	421134.55	-711034.64	1A	88		38	32743	1161
BUSH	421128.82	-711039.08	1A	59		9	29503	1214
TREE	421114.74	-711030.18	1A	64		14	21857	1336
TREE	421113.57	-711017.65	1A	107		57	17831	1409
TREE	421134.78	-711007.33	1A	102		52	7149	1437
TREE	421129.46	-711043.45	1A	82		32	29527	1549
TREE	421109.15	-711018.57	1A	77		27	18445	1826
TREE	421129.37	-711047.28	1A	120		70	29337	1832
ANT AND APBN ON ATCT	421111.03	-711035.70	1A	133		83	22609	1860
TREE	421108.62	-711026.28	1A	61		11	20255	1862
TREE	421136.45	-711045.57	1A	93		43	31537	1945
TREE	421138.54	-711045.02	1A	85		35	32123	2025
TREE	421133.48	-711048.74	1A	94		44	30452	2037
TREE	421134.86	-710957.28	1A	83		33	8309	2110
TREE	421141.83	-711048.46	1A	107		57	32412	2432
TREE	421103.85	-711013.40	1A	112		62	17810	2443
TREE	421128.92	-710950.10	1A	73		23	10055	2498
TREE	421136.64	-711053.75	1A	123		73	30857	2505
TREE	421143.68	-711049.58	1A	109		59	32616	2617
TREE	421134.96	-710949.70	1A	71		21	8741	2650
TREE	421059.75	-711020.48	1A	58		8	19128	2753
TREE	421130.81	-710946.50	1A	82		32	9728	2789
TREE	421135.99	-710946.69	1A	84		34	8706	2898
OL BLDG	421127.57	-711108.19	1A	129		79	28654	3389
TREE	421136.24	-710935.61	1A	99		49	9051	3704
TREE	421129.61	-710926.52	1A	115		65	10158	4273
TREE	421040.83	-711013.12	1A	113		63	18628	4721
TREE	421217.51	-711031.04	1C	224		174	906	5160
TREE	421221.19	-710946.52	1A	265		215	4220	6151
TREE	421234.75	-711011.94	1A	251		201	2242	6923
STACK	421123.97	-711156.26	1A	235		185	28318	7013
TREE	421123.71	-710847.94	1A	196		146	10814	7176
TREE	421102.14	-710851.10	1C	242		192	12533	7369
SPIRE	421143.34	-711203.28	1A	285		235	29811	7717

OC0725 Continued from previous page

AIRPORT ELEVATION 50

ARP 421126.869 -711023.174

OBJECT	LAT	LONG	A	EL	AGL	HAA	MAG BEARING	DISTANCE
TREE	421036.95	-710856.31	1A	217		167	14323	8264
BLDG	421102.41	-711209.79	1A	217		167	26834	8399
TREE	421237.36	-710923.57	1A	225		175	4750	8429
TREE	421138.42	-710830.51	1A	201		151	9750	8561
SPIRE	421127.09	-711219.50	1A	269		219	28551	8757
TREE	421211.05	-711207.29	1A	236		186	31525	9023
TREE	421144.72	-710819.17	1A	216		166	9444	9508
TREE	421007.56	-710901.96	1A	235		185	15823	10092
TREE	421306.96	-711020.14	1B	204		154	1659	10134
STACK	421231.37	-711209.78	1A	288		238	32450	10345
TREE	421012.88	-711209.54	1A	203		153	24237	10965
TREE	421226.69	-711226.36	1A	281		231	31851	11074
ANT ON SPIRE	421126.42	-711251.99	1A	336		286	28528	11202
TANK	421136.50	-711257.45	1A	336		286	29030	11654
TREE	421012.63	-710818.18	1A	266		216	14417	12043
TREE	421257.38	-711208.44	1A	271		221	33451	12112
TREE	421309.05	-711147.62	1A	250		200	34408	12140
STACK	421005.89	-711224.27	1A	268		218	24345	12261
ROD ON OL DOME	420951.12	-711207.11	1A	224		174	23437	12457
TREE	421240.03	-711241.90	1A	305		255	32103	12801
SPIRE	421251.74	-711245.65	1A	365		315	32424	13740
STACK	420919.42	-710908.50	1A	208		158	17208	14073
ROD ON OL STACK	421033.29	-710727.73	1A	327		277	12800	14279
TREE	420903.89	-710959.61	1A	300		250	18842	14582



TOUCHDOWN ZONE	RUNWAY ELEVATION
10	48
28	48
17	50
35	49

NORWOOD MEMORIAL AIRPORT

NORWOOD, MASSACHUSETTS

(NOT TO SCALE)

(ELEVATIONS AND DISTANCES IN FEET)