

US DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION							RNAV - STANDARD INSTRUMENT APPROACH PROCEDURE TITLE 14 CFR PART 97.33									Bearings, headings, courses, and radials are magnetic. Elevations and altitudes are in feet, MSL, except HAT, HAA, TCH, and RA. Altitudes are minimum altitudes unless otherwise indicated. Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles or in feet RVR.															
TERMINAL ROUTES													MISSED APPROACH																		
FROM			TO			COURSE AND DISTANCE			ALTITUDE			LPV: DA LNAV/VNAV: DA LNAV: RW35																			
PELAN (IAF)			YOULL (TF) (FB) (RNP 1.00)			351.59 / 3.76			2500			CLIMB TO 3000 DIRECT BLUUM AND HOLD, CONTINUE CLIMB-IN-HOLD TO 3000.																			
SHOWZ (IAF)			IHOBBS (TF) (FB) (RNP 1.00)			152.98 / 6.24			3000																						
IHOBBS			ELEEE (TF) (FB) (RNP 1.00)			086.67 / 5.27			3000																						
ELEEE			YOULL (TF) (FB) (RNP 1.00)			022.17 / 3.47			2500																						
YOULL (IF)			MNTIN (TF) (FB) (RNP 1.00)			351.57 / 3.01			1600			ADDITIONAL FLIGHT DATA: HOLD N, LT, 171.48 INBOUND. CHART FAS OBST: 495 TREE 425541N/0712506W DISTANCE TO THLD FROM 200 HAT: 0.45 NM. CHART VDP AT 1.33 NM TO RW35* *LNAV ONLY. WAAS CHANNEL # 99614 REFERENCE PATH ID: W35A CHART MANDATORY 5000 AT SHOWZ. CHART CIRCLING ICON. LTP HAE: 53.5 M																			
(SEE FORM 8260-10)																															
1. PT _____ SIDE OF COURSE _____ OUTBOUND _____ FT WITHIN _____ MILES OF _____ (IAF)													MAG VAR: 15W EPOCH YEAR: 2020																		
2. PROFILE STARTS AT YOULL																															
3. FAC: 351.55 FAF: MNTIN DIST FAF TO MAP: 4.02 THLD: 4.02																															
4. MIN. ALT: YOULL 2500, MNTIN 1600, XOHWI/1.90 NM TO RW35 920*																															
5. DIST TO THLD FROM OM: _____ MM: _____ IM: _____ 150 HAT: _____ 100 HAT: _____ GS ANT: _____																															
6. MIN GS INCPT: 1600 GS ALT AT: MNTIN 1600 OM: _____ MM: _____ IM: _____																															
7. GS ANGLE: 3.00 TCH: 54.9 34:1 IS NOT CLEAR																															
8. MSA FROM: RW35 3500																															
MINIMUMS																															
TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT													ALTERNATE: N A		STANDARD @																
CATEGORY =====>		A			B			C			D			E																	
	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA																
LPV DA	465	2400	200	465	2400	200	465	2400	200	465	2400	200																			
LNAV/VNAV DA	761	6000	496	761	6000	496	761	6000	496	761	6000	496																			
LNAV MDA	760	4000	495	760	4000	495	760	5000	495	760	5000	495																			
CIRCLING																880	1	614	880	1	614	980	2	714	1100	2 3/4	834				
NOTES: CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -18C (0F) OR ABOVE 54C (130F). CHART NOTE: DME/DME RNP-0.3 NA. CHART SPEED ICON IN PLANVIEW AT PELAN : MAX 210 KIAS. CHART SPEED ICON IN PLANVIEW AT SHOWZ : MAX 210 KIAS. (CONTINUED ON PAGE 2)																			@ NA WHEN LOCAL WEATHER NOT AVAILABLE. @ CAT D 900-2 3/4						QUALITY 25 CHECKED						
CITY AND STATE MANCHESTER, NH				ELEVATION: 266 TDZE: 265 AIRPORT NAME: MANCHESTER				FACILITY IDENTIFIER: RNAV		PROCEDURE NO./AMDT NO./EFFECTIVE DATE: RNAV (GPS) Y RWY 35, AMDT 1B						SUP: AMDT: 1A															
																DATED 06/25/2015															

ALL AFFECTED PROCEDURES REVIEWED? <div><input type="checkbox"/> YES</div> <div><input type="checkbox"/> NO</div>		COORDINATES OF FACILITIES		REQUIRED EFFECTIVE DATE	
				ROUTINE	
COORDINATED WITH:					
ATA <div>X</div>	AAT <div></div>	ALPA <div>X</div>	APA <div>X</div>	AOPA <div>X</div>	NBAA <div>X</div>
OTHER (specify) ZBW, BOS APP CON, MHT ATCT, AMGR					
FLIGHT CHECKED BY					
NAME:				FIFO	DATE:
DEVELOPED BY					
NAME:				FIFO	DATE:
HERMAN C. ROGERS				AJV-5432	03/17/2017
APPROVED BY					
NAME:				FIFO	DATE:
PATRICK MULQUEEN				AJV-5430	
CHANGES:					
1. CHANGED AIRPORT MAGVAR FROM 16W TO 15W. 2. CHANGED ALL HEADINGS, COURSES, AND TRACKS -1 DEGREE.					
REASONS:					
1. MAGVAR ROTATED PER AIRPORT CAT II/III ILS UPDATE INITIATIVE. 2. MAGVAR UPDATED FROM 16W/1995 TO 15W/2020.					



US DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION
RNAV - STANDARD
INSTRUMENT APPROACH PROCEDURE - TITLE 14 CFR PART 97.33

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TERMINAL ROUTES, (CONT.):

FROM	TO	COURSE AND DISTANCE	ALTITUDE
MNTIN (FAF)	XOHWI/1.90 NM TO RW35 (TF) (FB) (RNP 0.30)	351.55 / 2.12	
XOHWI/1.90 NM TO RW35	RW35 (MAP) (TF) (FO) (RNP 0.30)	351.55 / 1.90	
RW35 (MAP)	465 MSL (CA)	351.55	
465 MSL	BLUUM (DF) (FO) (RNP 1.00)		3000

NOTES, (CONT.):

CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).

*LNAV ONLY

CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE NASHUA ALTIMETER SETTING: INCREASE LPV DA TO 497 AND ALL CATS VISIBILITY 1/4 MILE; INCREASE LNAV/VNAV DA TO 793 AND ALL CATS VISIBILITY 1/8 MILE; INCREASE ALL MDA 40 FEET AND LNAV CATS C/D VISIBILITY 1/8 MILE AND CIRCLING CAT C VISIBILITY 1/4 MILE.

CHART NOTE: FOR INOPERATIVE ALSF, INCREASE LNAV CATS A/B VISIBILITY TO RVR 5500 AND CATS C/D VISIBILITY TO 1 3/8 MILE.

CHART NOTE: VDP AND BARO-VNAV NA WHEN USING NASUHA ALTIMETER SETTING.

CHART NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED FOR LNAV/VNAV AND LNAV.

CHART NOTE: INOPERATIVE TABLE DOES NOT APPLY TO LPV WHEN USING NASHUA ALTIMETER SETTING; FOR INOPERATIVE ALSF WHEN USING NASHUA ALTIMETER SETTING, INCREASE LNAV CATS A/B VISIBILITY TO RVR 6000 AND LNAV CATS C/D TO 1 3/8 MILE.

CHART PLANVIEW NOTE ADJACENT PELAN (IAF): RADAR REQUIRED FOR PROCEDURE ENTRY.

QUALITY
25
CHECKED

CITY AND STATE
MANCHESTER, NH

ELEVATION: 266 TDZE: 265
AIRPORT NAME:
MANCHESTER

FACILITY
IDENTIFIER:
RNAV

PROCEDURE NO./AMDT NO./EFFECTIVE DATE:
RNAV (GPS) Y RWY 35, AMDT 1B

SUP:
AMDT: 1A
DATED: 06/25/2015

ALL AFFECTED PROCEDURES REVIEWED? <input type="checkbox"/> YES <input type="checkbox"/> NO		COORDINATES OF FACILITIES		REQUIRED EFFECTIVE DATE	
COORDINATED WITH:					
ATA <input type="checkbox"/>	AAT <input type="checkbox"/>	ALPA <input type="checkbox"/>	APA <input type="checkbox"/>	AOPA <input type="checkbox"/>	NBAA <input type="checkbox"/>
OTHER (specify) <input type="checkbox"/> _____					
FLIGHT CHECKED BY					
NAME:				FIFO	DATE:
DEVELOPED BY					
NAME:				FIFO	DATE:
APPROVED BY					
NAME:				FIFO	DATE:
CHANGES:					
REASONS:					

**RNAV STANDARD INSTRUMENT APPROACH PROCEDURE
FLIGHT STANDARDS SERVICE - FAR PART 97.33**

Bearings, headings, courses, and radials are magnetic. Elevations and altitudes are in feet, MSL, except HAT, HAA, TCH, and RA. Altitudes are minimum altitudes unless otherwise indicated. Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles or in feet RVR.

FAS DATA BLOCK INFORMATION**DATA FIELD****DATA**

OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KMHT
RUNWAY	RW35
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	Y
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W35A
LTP/FTP LATITUDE	425514.2565N
LTP/FTP LONGITUDE	0712537.4700W
LTP/FTP ELLIPSOIDAL HEIGHT	+00535
FPAP LATITUDE	425636.0030N
FPAP LONGITUDE	0712625.7840W
THRESHOLD CROSSING HEIGHT (TCH)	00054.9
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0192
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	35.0

CRC REMAINDER

B9E4BD2F

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K6
LTP ORTHOMETRIC HEIGHT	+00809
FPAP ORTHOMETRIC HEIGHT	+00809

QUALITY
25
CHECKED

CITY AND STATE

MANCHESTER, NH

ELEVATION: 266

TDZE: 265

AIRPORT NAME:

MANCHESTER

FACILITY
IDENTIFIER:
RNAV

PROCEDURE NO./AMDT NO./EFFECTIVE DATE:

RNAV (GPS) Y RWY 35, AMDT 1B

SUP:

AMDT: 1A

DATED: 06/25/2015

ALL AFFECTED PROCEDURES REVIEWED? <input type="checkbox"/> YES <input type="checkbox"/> NO		COORDINATES OF FACILITIES		REQUIRED EFFECTIVE DATE	
COORDINATED WITH:					
ATA <input type="checkbox"/>	AAT <input type="checkbox"/>	ALPA <input type="checkbox"/>	APA <input type="checkbox"/>	AOPA <input type="checkbox"/>	NBAA <input type="checkbox"/>
OTHER (specify) <input type="checkbox"/> _____					
FLIGHT CHECKED BY					
NAME:				FIFO	DATE:
DEVELOPED BY					
NAME:				FIFO	DATE:
APPROVED BY					
NAME:				FIFO	DATE:
CHANGES:					
REASONS:					

STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD

PART - A OBSTRUCTION DATA

1. APP SEGMENT	FROM	TO	OBSTRUCTION	COORDINATES	ELEV. MSL	ROC	ALT. ADJUSTMENTS	MIN. ALT.	
INITIAL	PELAN	YOULL	1. AAO	424448.00N/0712133.00W	768 (4E)	1000	AT732	2500	
			2. TERRAIN	424500.00N/0712133.00W	568 (600)		AS1500	2100	
INITIAL	SHOWZ	IHOBB	3. AAO	424748.00N/0713739.00W	817 (4E)	1000	AT1183	3000	
			4. TERRAIN	424657.00N/0713648.00W	584 (600)		AS1500	2100	
INITIAL: STEPDOWN	IHOBB	ELEEE	5. TOWER (33-000085)	424407.00N/0712334.00W	988 (5D)	1000	AT1012	3000	
			6. TERRAIN	424448.00N/0712133.00W	568 (600)		AS1500	2100	
INITIAL: STEPDOWN	ELEEE	YOULL	1. AAO	424448.00N/0712133.00W	768 (4E)	1000	AT732	2500	
			7. TERRAIN	424703.00N/0712333.00W	476 (500)		AS1500	2000	
INTERMEDIATE	YOULL	MNTIN	8. AAO	424709.00N/0712233.00W	657 (4E)	500	AC98 AT345	1600	
			9. TERRAIN	425015.00N/0712333.00W	453 (500)		AS1000	1500	
FINAL: LPV	MNTIN	RW35				ASC		465/200	
FINAL: LNAV/VNAV	MNTIN	RW35	10. TREE	425409.52N/0712446.70W	463 (1A)	23.71:1		761/496	
FINAL: LNAV	MNTIN	XOHWI/1.90 NM TO	11. AAO	425155.90N/0712420.10W	629 (2C)	250	RA32	920	
		RW35							
2. PROCEDURE TURN									
3. MISSED APPROACH	MAP: DA / DA / RW35	BLUUM				ASC		3000	
	ELEV: 298/600/660		13. AAO	430339.00N/0713130.00W	893 (4E)	1000		1900	
			14. TERRAIN	430339.00N/0713130.00W	693 (700)		AS1500	2200	
4. CIRCLING AREA	DISTANCE	HT. ABV. ARPT.							
CATEGORY A	1.3 NM	REQUIRED 350	614	15. TREES	425552.41N/0712453.64W	579 (2C)	300	880	
CATEGORY B	1.5 NM	450	614	15. TREES	425552.41N/0712453.64W	579 (2C)	300	880	
CATEGORY C	1.7 NM	450	714	16. TOWER (33-000153)	425521.00N/0713028.00W	620 (4D)	300	AC50 980	
CATEGORY D	2.3 NM	550	834	17. AAO	425822.90N/0712137.00W	789 (2C)	300	1100	
CATEGORY E	4.5 NM	550							
5. MINIMUM SAFE ALTITUDES									
PRIMARY NAVAID: RW35									
SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A	SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A
360-360	AAO	276/20.2	2481 (4E)	3500					
CITY AND STATE	ELEVATION: 266	FACILITY	PROCEDURE AND AMENDMENT NO:	REGION					
MANCHESTER, NH	AIRPORT NAME: MANCHESTER	RNAV	RNAV (GPS) Y RWY 35, AMDT 1B	ANE					

QUALITY
25
CHECKED

PART B - SUPPLEMENTAL DATA										PART C - REMARKS: THRESHOLD DISPLACED 850. PRECIPITOUS TERRAIN EVALUATION COMPLETED. 2. KMHT ASOS ON SERVICE A. KASH ASOS ON SERVICE A. 3. KASH 24-HR BACK-UP PER EASTERN FPT REQUEST. MHT ATCT MAY OPERATE LESS THAN 24 HOURS IN THE FUTURE. 5. VGSI DATA: 3.00/67.9. SEE ATTACHED AIRSPACE LETTER. 80 FOOT TREES USED PER EASTERN FPT. TAA NOT DEVELOPED PER ATC REQUEST. LPV, LNAV/VNAV, AND LNAV INTERMEDIATE SEGMENTS HAVE THE SAME CONTROLLING OBSTACLES. PROCEDURE ENTRY FROM SHOWZ (IAF) AND SUBSEQUENT LEGS TO IHOB-EL-EE-YOULL USE 25 DEGREE BANK ANGLES AND MAX AIRSPEEDS OF 210 KIAS. ORDER 8260.3, VOLUME 1, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED CAT A: 1.30 NM CAT B: 1.81 NM CAT C: 2.85 NM CAT D: 3.72 NM LPV OCS SURFACE = 34:1 LNAV/VNAV OCS SURFACE = 23.71:1 AVERAGE COLD TEMPERATURE BASED ON 5 YEAR HISTORY: (2009, -11F; 2010, 2F; 2011, -11F; 2011, 1F; 2013, -2F). CRITICAL TEMPERATURES CRITICAL LOW: -18C (0F). CRITICAL HIGH: 54C (130F). ACT: -20C. AIRPORT ISA: 14.47C. DELTA ISA LOW: -32.47C. CRITICAL LOW TEMP BASED ON ACT DESCENT RATE: STANDARD TEMP 957, HIGH TEMP 1118 TEMPERATURE LIMITS, DELTA ISA LOW, AND DESCENT VALUES DERIVED FROM AFS-400 CALCULATOR RASS (PRESSURE PATTERNS ARE THE SAME): KMHT 266.4, KASH 200.4 RA = 31.46 RASS ROUNDED UP TO 32 FEET FOR ALL DA AND 40 FEET FOR ALL MDA AND PUBLISHED AS A NOTE. LPV 34:1 IS CLEAR OF PENETRATIONS WHEN USING MHT ALTIMETER SETTING. LPV 34:1 VISUAL SURFACE IS PENETRATED WHEN USING NASHUA ALTIMETER SETTING. ORDER 8260.3, VOLUME 1, "VISUAL PORTION OF FINAL" PENETRATIONS: 34:1 (AFFECTS LNAV/VNAV AND LNAV MINIMUMS ONLY) 362 TREE (KMHTT000996) 425448.36N/0712513.44W (10.80) 359 TREE (KMHTT000976) 425449.45N/0712513.06W (10.45) 397 TREE (KMHTT001209) 425437.15N/0712505.52W (8.28) 395 TREE (KMHTT001213) 425431.24N/0712523.32W (5.65) 345 TREE (KMHTT000920) 425451.83N/0712514.04W (3.81) 362 TREE (KMHTT001040) 425440.74N/0712528.76W (3.34) 445 TREE (KMHTT001574) 425420.95N/0712455.43W (3.24) 455 TREE (KMHTT001630) 425417.96N/0712452.98W (2.94) 396 TREE (KMHTT001240) 425429.12N/0712524.65W (2.02) CONT.	
1. COMMUNICATIONS WITH:			2. WEATHER SERVICE			3. ALTIMETER SETTING					
BOS APP CON MHT TOWER				N W S	OTHER: ASOS		SOURCE: KMHT / KASH				
				F A A			DISTANCE: 0 / 9.67				
				A / C			HOURS REMOTE OPERATION: 24 / BACKUP				
SATISFACTORY ON:											
X	V H F	X	U H F		H F	LOCATION: KMHT			ADJUSTMENT: 0/32		
4. MONITOR STATUS	PRIMARY NAVAID:										
	MONITOR POINT:										
	HRS OPTN:	CAT 1		CAT 3							
5. APPROACH & RUNWAY LIGHTING	X	ALSF-2 35 (PCL)									
		(S) SALS									
	X	MALSR 17 (PCL)									
	X	HIRL 06 (PCL), 17 (PCL), 24, 35 (PCL)									
		MIRL									
	X	REIL 06, 24									
	X	TDZ 17, 35									
	X	C/L 06, 17, 24, 35									
	X	OTHER (SPECIFY) PAPI-4R 17 PAPI-4L 06, 24, 35									
6. RUNWAY MARKINGS		BASIC									
		ALL WEATHER		PIR-G 06, 17, 35							
		INSTRUMENT		NPI-G 24							
7. RUNWAY VISUAL RANGE		APPROACH		06, 17, 24, 35							
		MIDFIELD		17, 35							
		ROLL OUT		06, 17, 24, 35							
8. GLIDE PATH		GP ANGLE: 3.00				ELEV RWY THRESHOLD: 265.4					
		DISTANCE FROM RWY:				ELEV GP ANTENNA:					
						THRESHOLD CROSSING HEIGHT: 54.9					
9. FINAL APPROACH COURSE AIMING		X	RUNWAY THRESHOLD						FT. FROM THRESHOLD		
		X	ON CENTERLINE						FT. FROM CENTERLINE		
10. WAIVERS: NONE											
PART D - PREPARED BY: HERMAN C. ROGERS						DATE: 03/17/2017					
TITLE: AERONAUTICAL INFORMATION SPECIALIST						OFFICE: AJV-5432					



STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD	
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PART - A OBSTRUCTION DATA

[illegible]

PART B - SUPPLEMENTAL DATA										PART C - REMARKS: CONTINUED. 370 TREE (KMHTT001091) 425443.10N/0712510.39W (1.78) 355 TREE (KMHTT001011) 425447.98N/0712510.88W (0.53) 417 TREE (KMHTT001392) 425429.68N/0712456.61W (0.11)		
1. COMMUNICATIONS WITH:				2. WEATHER SERVICE			3. ALTIMETER SETTING					
SATISFACTORY ON:					N W S	OTHER:		SOURCE:				
					F A A			DISTANCE:				
					A / C			HOURS REMOTE OPERATION:				
	V H F		U H F		H F	LOCATION:			ADJUSTMENT:			
4. MONITOR STATUS		PRIMARY NAVAID:										
		MONITOR POINT:										
		HRS	CAT 1									
		OPTN:	CAT 3									
5. APPROACH & RUNWAY LIGHTING			ALS									
			(S) SALS									
			MALS									
			HIRL									
			MIRL									
			REIL									
			TDZ									
			C/LINE									
6. RUNWAY MARKINGS			OTHER (SPECIFY)									
			BASIC									
			ALL WEATHER									
7. RUNWAY VISUAL RANGE			INSTRUMENT									
			APPROACH									
			MIDFIELD									
8. GLIDE PATH			ROLL OUT									
			GP ANGLE:				ELEV RWY THRESHOLD:					
			DISTANCE FROM RWY:				ELEV GP ANTENNA:					
9. FINAL APPROACH COURSE AIMING							THRESHOLD CROSSING HEIGHT:					
			RUNWAY THRESHOLD				FT. FROM THRESHOLD					
10. WAIVERS:							ON CENTERLINE				FT. FROM CENTERLINE	
PART D - PREPARED BY:										DATE:		
TITLE:										OFFICE:		