

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
RNAV (GPS) STANDARD INSTRUMENT APPROACH PROCEDURE**

TITLE 14 CFR PART 97.33

Bearings, headings, courses, tracks 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 feet RVR.

<u>AIRPORT</u> MANASSAS RGNL/HARRY P DAVIS FIELD	<u>AIRPORT ID</u> KHEF	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 16R	<u>ORIGINAL/AMENDMENT</u> 1C	<u>CITY</u> WASHINGTON	<u>STATE</u> DC
<u>AIRPORT ELEVATION</u> 192	<u>TDZE</u> 186	<u>SUPERSEDED</u> RNAV (GPS) RWY 16R	<u>ORIGINAL/AMENDMENT</u> 1B	<u>DATED</u> 05/28/2015	<u>MAG VAR</u> 10W
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 30 JANUARY 2020	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>	<u>EPOCH YEAR</u> 2000

THIS IS A CORRECTED COPY OF A PROCEDURE ORIGINALLY PUBLISHED IN TL 20-02.

TERMINAL ROUTES

FROM	FIX TYPE	TO	FIX TYPE	LEG TYPE	FO/FB	RNP	COURSE	DISTANCE	ALTITUDE
CSN VORTAC		SAVVV		TF	FB	1.00	021.29	14.07	3000
SAVVV	IAF	ANECU		TF	FB	1.00	090.10	7.85	3000
SHYLO	IAF	ANECU		TF	FB	1.00	231.54	8.09	3000
MANNE	IAF	ANECU		TF	FB	1.00	172.16	6.94	3000
ANECU	IF	TIKTE		TF	FB	1.00	160.51	2.67	2600
TIKTE		WTRUS		TF	FB	1.00	160.53	2.67	2200
WTRUS	FAF	WUMAD/3.30 NM TO RW16R		TF	FB	0.30	160.57	2.87	
WUMAD/3.30 NM TO RW16R		RW16R	MAP	TF	FO	0.30	160.57	3.30	
RW16R	MAP	700 MSL		CA			160.57		
700 MSL		CSN VORTAC		DF	FO	1.00			3000

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW16R

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 700 THEN CLIMBING RIGHT TURN TO 3000 DIRECT CSN VORTAC AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)
2. PROFILE STARTS AT ANECU
3. FAC: 160.57 FAF: WTRUS DIST FAF TO MAP: 6.17 DIST FAF TO THLD: 6.17
4. MIN ALT: ANECU 3000, TIKTE 2600, WTRUS 2200, WUMAD/3.30 NM TO RW16R 1280*
5. DIST TO THLD FROM OM: MM: IM: 150 HAT: 308 HAT: 0.80 ← GS ANT:
6. MIN GP INCPT: 2200 GP ALT AT FAF : WTRUS 2200 OM: MM: IM:
7. GP ANGLE: 3.00 34:1: IS NOT CLEAR 20:1: IS CLEAR TCH: 53.0
8. MSA FROM: RW16R 3400

PBN REQUIREMENTS NOTE:

RNP APCH.
RADAR REQUIRED.

NOTES:

CHART NOTE: RWY 16R HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -15°C OR ABOVE 54°C.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL AT MANNE ON V4 NORTHWEST BOUND.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON
CHART R6608A, B, C
CHART VDP AT 1.32 NM TO RW16R*
*LNAV ONLY
WAAS CHANNEL #78035
REFERENCE PATH ID: W16B
CHART FAS OBST: 393 TREE 384545N/0773209W.
609 AAO 384822N/0773528W.
HOLD SW, LT, 027.00 INBOUND
LTP HAE: 24.5 M

MINIMUMS:

TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT

ALTERNATE: NA ☐ STANDARD - CAT D 800-2 1/4, NA WHEN LOCAL WEATHER NOT AVAILABLE.

CATEGORY:	A			B			C			D			E		
FINAL TYPE	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA
LPV DA	494	1	308	494	1	308	494	1	308	494	1	308			
LNAV/VNAV DA	675	1 5/8	489	675	1 5/8	489	675	1 5/8	489	675	1 5/8	489			
LNAV MDA	660	1	474	660	1	474	660	1 3/8	474	660	1 3/8	474			
CIRCLING	720	1	528	740	1	548	840	1 3/4	648	880	2 1/4	688			

QUALITY
9
CHECKED

CHANGES - REASONS

1. REPLACED "DME/DME RNP-0.3 NA" WITH PBN REQUIREMENT NOTE "RNP APCH" - IAW 8260.19H.
2. CHANGED "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -15°C (5°F) OR ABOVE 54°C (130°F)" TO "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -15°C OR ABOVE 54°C" - IAW 8260.19H.
3. CHANGED "CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL AT MANNE ON V4-92 NORTHWEST BOUND" TO "CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL AT MANNE ON V4 NORTHWEST BOUND" - V 92 CANCELLED PER DOCKET NUMBER 18-AEA-17.
4. DELETED BACKUP ALTIMETER NOTE - ADDED TO REMARKS SECTION OF 8260.9 AS CONTINGENCY NOTE.
5. DELETED VDP AND BARO-VNAV NA NOTES - ADDED TO REMARKS SECTION OF 8260.9 AS CONTINGENCY NOTE
6. CHANGED HELICOPTER VISIBILITY NOTE FROM "CHART NOTE: HELICOPTER VISIBILITY REDUCTION BELOW..." TO "CHART NOTE: RWY 16R HELICOPTER VISIBILITY REDUCTION BELOW..." - UPDATED FORMAT IAW 8260.19H.
7. ADDED 20:1 IS CLEAR - DOCUMENTING NO 20:1 PENETRATIONS IAW 8260.19H.
8. MOVED "RADAR REQUIRED" FROM ADDITIONAL FLIGHT NOTES TO PBN REQUIREMENT NOTES - IAW 8260.19H.
9. CHANGED LPV DA FROM 493 TO 494, LNAV/VNAV DA FROM 674 TO 675, AND LNAV HAT FROM 475 TO 474 - INCORPORATED PNOTAM 5/8235.

12/03/19: THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 11/20/2019.

1. ADDED 308 HAT: 0.80 TO LINE 5.
2. FAS DATA: ADDED "R" TO RUNWAY 16 TO REFLECT RW16R.

COORDINATED WITH:

A4A ☒ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZDC, IAD APP CON, HEF ATCT, HEF AMGR, VA DEPT OF AVIATION

FLIGHT CHECKED BY

PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-33) MEMO, OCTOBER 3, 2018, SUBJECT:
FLIGHT INSPECTION REVIEW NOT REQUIRED

OFFICE

DATE

Digitally signed by

ALLAN WILL

Dec 18, 2019

DEVELOPED BY

DAVID DANNER (TAYLOR GIBSON)

OFFICE

AJV-A421

DATE

08/21/2019

Digitally signed by

ALLAN WILL

Dec 18, 2019

APPROVED BY

MARLON ROBINSON

OFFICE

AJV-A420

DATE

Digitally signed by

ALLAN WILL

Dec 18, 2019

TITLE

MANAGER

FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KHEF
RUNWAY	RW16R
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W16B
LTP/FTP LATITUDE	384336.1465N
LTP/FTP LONGITUDE	0773115.8710W
LTP/FTP ELLIPSOIDAL HEIGHT	+00245
FPAP LATITUDE	384218.4340N
FPAP LONGITUDE	0773020.0125W
THRESHOLD CROSSING HEIGHT (TCH)	00053.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1616
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	76C25382

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K6
LTP ORTHOMETRIC HEIGHT	+00565
FPAP ORTHOMETRIC HEIGHT	+00565

