

**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><b>AIRPORT ID</b></u> KHEF	<u><b>PROCEDURE NAME</b></u> RNAV (GPS) RWY 16R	<u><b>ORIGINAL/AMENDMENT</b></u> 2	<u><b>CITY</b></u> WASHINGTON	<u><b>STATE</b></u> DC		
<u><b>AIRPORT ELEVATION</b></u> 192	<u><b>TDZE</b></u> 186	<u><b>SUPERSEDED</b></u> RNAV (GPS) RWY 16R	<u><b>ORIGINAL/AMENDMENT</b></u> 1C	<u><b>DATED</b></u> 01/30/2020	<u><b>MAG VAR</b></u> 10W	<u><b>EPOCH YEAR</b></u> 2000
<u><b>FACILITY</b></u> RNAV	<u><b>COORDINATES OF FACILITIES</b></u>	<u><b>ACTUAL EFFECTIVE DATE</b></u> 29 DECEMBER 2022	<u><b>REQUIRED EFFECTIVE DATE</b></u> ROUTINE	<u><b>CANCEL/SUSPEND</b></u>		

**TERMINAL ROUTES**

<u><b>FROM</b></u>	<u><b>FIX TYPE</b></u>	<u><b>TO</b></u>	<u><b>FIX TYPE</b></u>	<u><b>LEG TYPE</b></u>	<u><b>FO/FB</b></u>	<u><b>RNP</b></u>	<u><b>COURSE</b></u>	<u><b>DISTANCE</b></u>	<u><b>ALTITUDE</b></u>
CSN VORTAC		SAVVV		TF	FB	1.00	021.29	14.07	3000
SAVVV	IAF	ANECU		TF	FB	1.00	090.10	7.85	3000
MANNE	IAF	ANECU		TF	FB	1.00	172.16	6.94	3000
ANECU	IF	TIKTE		TF	FB	1.00	160.51	3.12	2600
TIKTE		WTRUS		TF	FB	1.00	160.53	2.22	2200
WTRUS	FAF	WUMAD/3.30 NM TO RW16R		TF	FB	0.30	160.57	2.86	
WUMAD/3.30 NM TO RW16R		RW16R	MAP	TF	FO	0.30	160.57	3.30	
RW16R	MAP	700 MSL		CA			160.57		700
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:**

QUALITY  
22  
CHECKED

PROFILE:

1. PT                      SIDE OF COURSE                      OUTBOUND                      FT WITHIN                      MILES OF                      (IAF)

2. PROFILE STARTS AT ANECU

3. FAF: 160.57                      FAF: WTRUS                      DIST FAF TO MAP: 6.16                      DIST FAF TO THLD: 6.16

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 PFAF : 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 - GPS.

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.  
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL AT CSN VORTAC ON V453 NORTHWEST BOUND.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON  
HOLD SW, LT, 027.00 INBOUND.  
CHART FAS OBST: 393 TREE (51-036919) 384545N/0773209W.  
CHART 453 TOWER 384637N/0773224W.  
609 AAO 384822N/0773528W.  
CHART R-6608A, B, C.  
CHART VDP AT 1.32 NM TO RW16R.  
WAAS CHANNEL # 78035  
REFERENCE PATH ID: W16B  
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	7/8	308	494	7/8	308	494	7/8	308	494	7/8	308			
LNAV/VNAV DA	675	1 3/8	489	675	1 3/8	489	675	1 3/8	489	675	1 3/8	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			

**CHANGES - REASONS**

1. REMOVED IAF SHYLO TRANSITION - PER FPT/ATC REQUEST.
2. COURSE DISTANCE FROM ANECU TO TIKTE CHANGED FROM 2.67 TO 3.12 NM AND DISTANCE FROM TIKTE TO WTRUS CHANGED FROM 2.67 TO 2.22 NM - INTERMEDIATE STD FIX MOVED TO SUPPORT ATC VECTORING AND FAF MOVED TO ALIGN FOR NEW TARGETS EVALUATION.
3. DECREASED LPV VISIBILITY ALL CATS FROM 1 TO 7/8 NM, DECREASED LNAV/VNAV VISIBILITY ALL CATS FROM 1 5/8 TO 1 3/8 NM - 8260.3E TABLE 3-3-1.
4. UPDATED PBN REQUIREMENTS NOTE: RNP APCH, ADDED GPS - IAW 8260.I.
5. REMOVED PBN EQUIPMENT REQUIREMENTS NOTE "RADAR REQUIRED" - RADAR ISN'T REQUIRED ON RNP APCH-GPS APPROACHES.
6. REMOVED "LNAV ONLY" AND THE ASTERISK AT "1.32 NM TO RW16R" - 8260.19I.
7. ADDED CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL AT CSN VORTAC ON V453 NORTHWEST BOUND - GREATER THAN 90 DEGREE TURN.
8. CHANGED AFD NOTE FROM "CHART R6608A, B, C" TO "CHART R-6608A, B, C" - 8260.19I.
9. CRC REMAINDER CHANGED FROM 76C25382 TO 90C15326 - FPAP LAT/LONG CHANGED.
10. DISTANCE FROM FAF TO MAP/THLD CHANGED FROM 6.17 TO 6.16 NM - FAF RELOCATED.

**COORDINATED WITH:**

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

**FLIGHT CHECKED BY**

STEPHEN BAUER

*Digitally signed by***CASIMIR L TABAKA**

Aug 29, 2022

**OFFICE**

FPO

**DATE**

08/22/2022

**DEVELOPED BY**

LORRI DOWNEY

*Digitally signed by***LORRI F DOWNEY**

Jul 27, 2022

**OFFICE**

AJV-A432

**DATE**

06/16/2022

**APPROVED BY**

CASIMIR TABAKA

*Digitally signed by***CASIMIR L TABAKA**

Aug 01, 2022

**OFFICE**

AJV-A430

**DATE**

07/20/2022

**TITLE**  
MANAGERQUALITY  
22  
CHECKED

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	384218.4420N
FPAP LONGITUDE	0773019.9935W
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	90C15326

ADDITIONAL PATH POINT RECORD INFORMATION

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

