

**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 ID</u> KCMH	<u>PROCEDURE NAME</u> RNAV (GPS) Y RWY 28R	<u>ORIGINAL/AMENDMENT</u> 3	<u>CITY</u> COLUMBUS	<u>STATE</u> OH		
<u>AIRPORT ELEVATION</u> 815	<u>TDZE</u> 813	<u>SUPERSEDED</u> RNAV (GPS) Y RWY 28R	<u>ORIGINAL/AMENDMENT</u> 2B	<u>DATED</u> 06/22/2017	<u>MAG VAR</u> 7W	<u>EPOCH YEAR</u> 2015
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 22 APRIL 2021	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>		

TAA

FROM	FIX TYPE	TO	FIX TYPE	ALTITUDE
1. 191/30 CW 011/30	NOPT	BAATZ	IF/IAF	3300
2. 011/30 CW 191/30		BAATZ	IAF	3300

TERMINAL ROUTES

FROM	FIX TYPE	TO	FIX TYPE	LEG TYPE	FO/FB	RNP	COURSE	DISTANCE	ALTITUDE
BAATZ	IF/IAF	WEEKZ		TF	FB	1.00	281.33	3.30	2300
WEEKZ	FAF	UNOIT/2.00 NM TO RW28R		TF	FB	0.30	281.28	2.51	
UNOIT/2.00 NM TO RW28R		RW28R	MAP	TF	FO	0.30	281.28	2.00	
RW28R	MAP	1400 MSL		CA			281.28		1400
1400 MSL		APE VORTAC		DF	FO	1.00			3000

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW28R

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 1400 THEN CLIMBING RIGHT TURN TO 3000 DIRECT APE VORTAC AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT	SIDE OF COURSE	OUTBOUND	FT WITHIN	MILES OF	(IAF)
2. HOLD E BAATZ, RT, 281.33 INBOUND, 3300 FT. IN LIEU OF PT (IAF), MAX 6000.					
3. FAC:	281.28	FAF: WEEKZ	DIST FAF TO MAP: 4.51	DIST FAF TO THLD: 4.51	
4. MIN ALT:	BAATZ 3300, WEEKZ 2300, UNOIT/2.00 NM TO RW28R 1480*				
5. DIST TO THLD FROM OM:	MM:	IM:	150 HAT:	200 HAT: 0.47	GS ANT:
6. MIN GP INCPT:	2300	GP ALT AT FAF :	WEEKZ 2300	OM:	MM:
7. GP ANGLE:	3.00	34:1: IS CLEAR	20:1: IS CLEAR	TCH: 50.2	IM:
8. MSA FROM:					

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: SIMULTANEOUS APPROACH AUTHORIZED.
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -19°C OR ABOVE 54°C.
CHART NOTE: LNAV PROCEDURE NA DURING SIMULTANEOUS OPERATIONS.
CHART NOTE: USE OF FD OR AP PROVIDING RNAV TRACK GUIDANCE REQUIRED DURING SIMULTANEOUS OPERATIONS.
CHART NOTE: FOR INOPERATIVE ALS, INCREASE LNAV/VNAV ALL CATS VISIBILITY TO RVR 4500; INCREASE LNAV CAT C/D VISIBILITY TO 1 3/8 SM.
CHART NOTE: ** RVR 1800 AUTHORIZED WITH USE OF FD OR AP OR HUD TO DA.

ADDITIONAL FLIGHT DATA:

HOLD NE, RT, 235.00 INBOUND.
CHART FAS OBST: 1024 TREE 400029N/0825035W.
1270 AAO 400130N/0824624W.
CHART VDP AT 1.31 NM TO RW28R*
*LNAV ONLY.
WAAS CHANNEL # 86619
REFERENCE PATH ID: W28B
CHART CIRCLING ICON.
LTP HAE: 213.5 M



MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD - CAT D 800-2 1/4

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**	1013	2400	200	1013	2400	200	1013	2400	200	1013	2400	200			
LNAV/VNAV DA	1096	2400	283	1096	2400	283	1096	2400	283	1096	2400	283			
LNAV MDA	1280	2400	467	1280	2400	467	1280	5000	467	1280	5000	467			
CIRCLING	1340	1	525	1340	1	525	1520	2	705	1520	2 1/4	705			

CHANGES - REASONS

1. LPV DA/HAT DECREASED FROM 1018/205 TO 1013/200. - ALL SURFACES CLEAR, NO MISSED PENETRATION.
2. LNAV/VNAV DA HAT DECREASED FROM 1122/309 TO 1096/283. - LNAV/VNAV NEW CONTROLLING OBSTACLE.
3. TAA: 011/30 TO CW 191/30 AND 191/30 TO 011/30 ADDED. - PER FPT REQUEST.
4. TERMINAL ROUTES: INITIALS BREMN TO CAGTI AND APE VORTAC TO CAGTI REMOVED. - PER FPT REQUEST.
5. TERMINAL ROUTES: INTERMEDIATE CAGTI TO ATIPE REMOVED; BAATZ TO WEEKZ ADDED; COURSE AND DISTANCE UPDATED FROM 281.38/6.21 TO 281.33/3.30. - IF/IAF AND FAF MOVED PER FPT REQUEST.
6. TERMINAL ROUTES: FINAL ATIPE TO HULOP/2.10 NM TO RW28R REMOVED; WEEKZ TO UNOIT/2.00 NM TO RW28R ADDED; COURSE AND DISTANCE UPDATED FROM 281.29/3.04 TO 281.28/2.51. - FAF AND STEPDOWN FIXES REPLACED FPT REQUEST.
7. TERMINAL ROUTES: FINAL STEPDOWN HULOP/2.10 NM TO RW28R REMOVED; UNOIT/2.00 NM TO RW28R ADDED; COURSE AND DISTANCE UPDATED FROM 281.29/2.10 TO 281.28/2.00. - STEPDOWN FIX REPLACED PRE FPT REQUEST.
8. TERMINAL ROUTES: RW28R TO 1018 MSL UPDATED TO RW28R TO 1400 MSL; COURSE UPDATED FROM 281.29 TO 281.28. - MISSED APPROACH CLIMB-TO ALTITUDE INCREASED; FINAL COURSE UPDATED.
9. TERMINAL ROUTES: MISSED APPROACH DF LEG CHANGED FROM 1018 MSL TO ALEME TO 1400 MSL TO APE VORTAC. - MISSED APPROACH INSTRUCTIONS UPDATED PER FPT REQUEST.
10. MISSED APPROACH INSTRUCTIONS UPDATED FROM "CLIMB TO 2800 DIRECT ALEME AND HOLD" TO "CLIMB TO 1400 THEN CLIMBING RIGHT TURN TO 3000 DIRECT APE VORTAC AND HOLD." - PER FPT REQUEST.
11. PROFILE LINE 2: PROFILE STARTS AT CAGTI REMOVED; HOLD E BAATZ, RT, 281.33 INBOUND, 3300 FT. IN LIEU OF PT (IAF), MAX 6000" ADDED. - HOLD-IN-LIEU ADDED.
12. PROFILE LINE 3: FAC UPDATED FROM 281.29 TO 281.28; FAF UPDATED FROM ATIPE TO WEEKZ; DISTANCE FAF TO MAP AND FAF TO THLD UPDATED FROM 5.14 TO 4.51. - IF/IAF AND FAF UPDATED AND MOVED.
13. PROFILE LINE 4/6: MIN ALT UPDATED FROM "CAGTI 3000, ATIPE 2500, HULOP/2.10 NM TO RW28R 1520*" TO "BAATZ 3300, WEEKZ 2300, UNOIT/2.00 NM TO RW28R 1480*; MIN GP INCPT UPDATED FROM 2500 TO 2300; GP ALT AT FAF UPDATED FROM ATIPE 2500 TO WEEKZ 2300. - IF/IAF AND FAF UPDATED AND MOVED.
14. PROFILE LINE 5: DIST TO THLD FROM 205 HAT: 0.48 UPDATED TO 200 HAT: 0.47; "DISTANCE TO THLD FROM 205 HAT: 0.48 NM" REMOVED FROM ADDITIONAL FLIGHT DATA. - LPV MINS DECREASED; UPDATED FORMS.
15. PROFILE LINE 7: 20:1 IS CLEAR ADDED. - NO 20:1 PENETRATIONS PRESENT.
16. PROFILE LINE 8. MSA REMOVED. - TAA ADDED PER FPT REQUEST.
17. CHART NOTE: DME/DME RNP-0.3 NA REMOVED; PBN REQUIREMENTS NOTE: RNP APCH ADDED. - IAW 8260.58A TABLE 1-2-1.
18. UPDATED CHART NOTE FROM "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -14C (0F) OR ABOVE 54C (130F)" TO "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -19C OR ABOVE 54C. - UPDATED WEATHER STUDY (2015-2019) USED FOR SLOPE CALCULATIONS AND TO DETERMINE UPPER/LOWER TEMPERATURE LIMITS FOR UNCOMPENSATED BARO-VNAV SYSTEMS; FAHRENHEIT REMOVED IAW 8260.19H.
19. REMOVED CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON APE VORTAC AIRWAY RADIALS 117 CW 271. - INITIAL FROM APE VORTAC REMOVED.
20. UPDATED ADDITIONAL FLIGHT DATA: 1289 AAO 400028N/0824538W TO 1270 AAO 400130N/0824624W. - NEW LNAV FINAL 7:1 OBSTACLE.
21. UPDATED ADDITIONAL FLIGHT DATA: FROM "HOLD W, RT, 101.12 INBOUND" TO "HOLD NE, RT, 235.00 INBOUND." - MISSED APPROACH HOLDING UPDATED PER FPT.
22. FAS DATA: UPDATED LTP/FTP LATITUDE AND LONGITUDE FROM 400005.7315N/0825244.9700W TO 400005.7305N/0825244.9690W. - NEW AIRNAV DATA INCORPORATED.
23. FAS DATA: UPDATED FPAP LATITUDE AND LONGITUDE FROM 400012.2765N/0825440.6040W TO 400012.2705N/0825440.6030W. - NEW FPAP LOCATION.
24. FAS DATA: UPDATED CRC REMAINDER FROM 3B7B76E2 TO 0C3DF130. - LTP/FTP AND FPAP LATITUDE/LONGITUDE UPDATED.

QUALITY
24
CHECKED

AIRPORT ID
KCMH

PROCEDURE NAME
RNAV (GPS) Y RWY 28R

ORIGINAL/AMENDMENT
3

CITY
COLUMBUS

STATE
OH

COORDINATED WITH:

A4A ☒ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: ZID, CMH APP CON, CMH ATCT, AMGR

FLIGHT CHECKED BY

GLEN B FREEMAN

Digitally signed by OFFICE

JON DENTON FICO

DATE

02/25/2021

DEVELOPED BY

JON DENTON (BARBARA GORMAN)

Digitally signed by

JON DENTON

Mar 09, 2021

OFFICE

AJV-A432

DATE

11/19/2020

APPROVED BY

LONNIE EVERHART

Digitally signed by

JON DENTON

Mar 09, 2021

OFFICE

AJV-A430

DATE

TITLE
MANAGER

QUALITY
24
CHECKED

FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KCMH
RUNWAY	RW28R
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	Y
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W28B
LTP/FTP LATITUDE	400005.7305N
LTP/FTP LONGITUDE	0825244.9690W
LTP/FTP ELLIPSOIDAL HEIGHT	+02135
FPAP LATITUDE	400012.2705N
FPAP LONGITUDE	0825440.6030W
THRESHOLD CROSSING HEIGHT (TCH)	00050.2
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0312
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	35.0
CRC REMAINDER	0C3DF130

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K5
LTP ORTHOMETRIC HEIGHT	+02476
FPAP ORTHOMETRIC HEIGHT	+02476

