

**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 10R	<u>ORIGINAL/AMENDMENT</u> 4	<u>CITY</u> COLUMBUS	<u>STATE</u> OH		
<u>AIRPORT ELEVATION</u> 815	<u>TDZE</u> 809	<u>SUPERSEDED</u> RNAV (GPS) Y RWY 10R	<u>ORIGINAL/AMENDMENT</u> 3C	<u>DATED</u> 12/07/2017	<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. 011/30 CW 191/30	NOPT	BATTI	IF/IAF	3300
2. 191/30 CW 011/30		BATTI	IAF	3300

TERMINAL ROUTES

FROM	FIX TYPE	TO	FIX TYPE	LEG TYPE	FO/FB	RNP	COURSE	DISTANCE	ALTITUDE
BATTI	IF/IAF	SHUUU		TF	FB	1.00	101.08	3.30	2300
SHUUU	FAF	DEBBY/2.52 NM TO RW10R		TF	FB	0.30	101.13	2.00	
DEBBY/2.52 NM TO RW10R		RW10R	MAP	TF	FO	0.30	101.13	2.52	
RW10R	MAP	1400 MSL		CA			101.13		1400
1400 MSL		BOUTN LOM		DF	FO	1.00			3000

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW10R

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 1400 THEN CLIMBING RIGHT TURN TO 3000 DIRECT BU LOM AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

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

2. HOLD W BATTI, RT, 101.08 INBOUND, 3300 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAF: 101.13 FAF: SHUUU DIST FAF TO MAP: 4.52 DIST FAF TO THLD: 4.52

4. MIN ALT: BATTI 3300, SHUUU 2300, DEBBY/2.52 NM TO RW10R 1660*

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 : SHUUU 2300 OM: MM: IM:

7. GP ANGLE: 3.00 34:1: IS CLEAR 20:1: IS CLEAR TCH: 54.0

8. MSA FROM:

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -19°C OR ABOVE 54°C.
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
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 CAT C/D VISIBILITY TO 1 3/8 SM.
CHART NOTE: SIMULTANEOUS APPROACH AUTHORIZED.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
HOLD SW, LT, 038.00 INBOUND.
CHART FAS OBST: 1059 TOWER 395919N/0825808W.
CHART VDP AT 1.39 NM TO RW10R*
*LNAV ONLY.
WAAS CHANNEL # 99603
REFERENCE PATH ID: W10A
LTP HAE: 211.3 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	1009	1800	200	1009	1800	200	1009	1800	200	1009	1800	200			
LNAV/VNAV DA	1194	3500	385	1194	3500	385	1194	3500	385	1194	3500	385			
LNAV MDA	1320	2400	511	1320	2400	511	1320	5500	511	1320	5500	511		QUALITY 24 CHECKED	
CIRCLING	1340	1	525	1340	1	525	1520	2	705	1520	2 1/4	705			

CHANGES - REASONS

1. LNAV/VNAV DA/HAT DECREASED FROM 1273/464 TO 1194/385; VISIBILITY DECREASED FROM RVR 5500 TO 3500. - NEW LNAV/VNAV CONTROLLING OBSTACLE; NEW INOP VISIBILITY TABLE USED.
2. LNAV MDA/HAT INCREASED FROM 1220/411 TO 1320/511; VISIBILITY CAT C AND D INCREASED FROM 4000 TO 5500. - NEW LNAV CONTROLLING OBSTACLE; NEW INOP VISIBILITY TABLE USED.
3. CIRCLING CAT D MDA/HAA DECREASED FROM 1540/725 TO 1520/705. - NEW CIRCLING CONTROLLING OBSTACLE.
4. TAA: 011/30 CW 191/30 AND 191/30 CW 011/30 ADDED. - PER FPT REQUEST.
5. TERMINAL ROUTES: REMOVED FEEDER APE VORTAC TO WOTIT; REMOVED INITIALS JOGER TO WOTIT AND PIZZA TO WOTIT. - PER FPT REQUEST.
6. TERMINAL ROUTES: REMOVED INTERMEDIATE WOTIT TO SHOSH; ADDED BATTI TO SHUUU; COURSE AND DISTANCE UPDATED FROM 101.01/7.12 TO 101.08/3.30; ALTITUDE UPDATED FROM 2700 TO 2300. - IF/IAF AND FAF MOVED PER FPT REQUEST.
7. TERMINAL ROUTES: FINAL AND MISSED APPROACH CA LEG COURSE UPDATED FROM 101.11 TO 101.13. - FAF AND STEPDOWN FIXES REPLACED/MOVED FPT REQUEST.
8. TERMINAL ROUTES: FINAL SHOSH TO DEBBY/2.00 NM TO RW10R UPDATED TO SHUUU TO DEBBY/2.52 NM TO RW10R; DISTANCE UPDATED FROM 3.78 TO 2.00. - FAF AND STEPDOWN FIXES REPLACED/MOVED FPT REQUEST.
9. TERMINAL ROUTES: FINAL STEPDOWN DEBBY/2.00 NM TO RW10R UPDATED TO DEBBY/2.52 NM TO RW10R; DISTANCE UPDATED FROM 2.00 TO 2.52. - STEPDOWN FIX REPLACED PER FPT REQUEST.
10. TERMINAL ROUTES: RW10R TO 1009 MSL UPDATED TO RW10R TO 1400 MSL. - MISSED APPROACH CLIMB-TO ALTITUDE INCREASED.
11. TERMINAL ROUTES: MISSED APPROACH DF LEG CHANGED FROM 1009 MSL TO CORED TO 1400 MSL TO BOUTN LOM. - MISSED APPROACH INSTRUCTIONS UPDATED PER FPT REQUEST.
12. MISSED APPROACH INSTRUCTIONS UPDATED FROM "CLIMB TO 3000 DIRECT CORED AND HOLD" TO "CLIMB TO 1400 THEN CLIMBING RIGHT TURN TO 3000 DIRECT BU LOM AND HOLD." - PER FPT REQUEST.
13. PROFILE LINE 2: "HOLD W WOTIT, RT, 101.01 INBOUND, 2900 FT IN LIEU OF PT (IAF)" UPDATED TO "HOLD W BATTI, RT, 101.08 INBOUND, 3300 FT. IN LIEU OF PT (IAF), MAX 6000" ADDED. - HOLD-IN-LIEU UPDATED PER FPT REQUEST.
14. PROFILE LINE 3: FAC UPDATED FROM 101.11 TO 101.13; FAF UPDATED FROM SHOSH TO SHUUU; DISTANCE FAF TO MAP AND FAF TO THLD UPDATED FROM 5.78 TO 4.52. - IF/IAF AND FAF UPDATED AND MOVED.
15. PROFILE LINE 4: MIN ALT UPDATED FROM "WOTIT 2900, SHOSH 2700, DEBBY/2.00 NM TO RW10R 1480*" TO "BATTI 3300, SHUUU 2300, DEBBY/2.52 NM TO RW10R 1660*" - IF/IAF AND FAF UPDATED AND MOVED.
16. PROFILE LINE 5: ADDED DIST TO THLD FROM 200 HAT: 0.47; "DISTANCE TO THLD FROM 200 HAT: 0.46 NM" REMOVED FROM ADDITIONAL FLIGHT DATA. - UPDATED AIRNAV DATA AND FORMS.
17. PROFILE LINE 6: MIN GP INCPT UPDATED FROM 2700 TO 2300; GP ALT AT FAF UPDATED FROM SHOSH 2700 TO SHUUU 2300. - IF/IAF AND FAF UPDATED AND MOVED.
18. PROFILE LINE 7: 20:1 IS CLEAR ADDED. - NO 20:1 PENETRATIONS PRESENT
19. PROFILE LINE 8. MSA REMOVED. - TAA ADDED PER FPT REQUEST.
20. REMOVED CHART NOTE: DME/DME RNP-0.3 NA; ADDED PBN REQUIREMENTS NOTE: RNP APCH. - IAW 8260.58A TABLE 1-2-1.
21. UPDATED CHART NOTE FROM "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -18C (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.
22. REMOVED CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON APE VORTAC AIRWAY RADIALS 189 CW 335. - FEEDER FROM APE VORTAC REMOVED.
23. ADDED CHART NOTE: FOR INOPERATIVE ALS, INCREASE LNAV CAT C/D VISIBILITY TO 1 3/8 SM. - NEW INOP VISIBILITY TABLE USED.
24. UPDATED ADDITIONAL FLIGHT DATA: CHART FAS OBST: 968 TOWER 395919N/0825553W TO 1059 TOWER 395919N/0825808W. - NEW LNAV FINAL CONTROLLER.
25. UPDATED ADDITIONAL FLIGHT DATA: CHART VDP FROM "1.08 NM TO RW10R" TO "1.39 NM TO RW10R." - LNAV MDA/HAT CHANGED FROM 1220/411 TO 1320/511 .
26. FAS DATA: UPDATED LTP/FTP LATITUDE AND LONGITUDE FROM 395937.1445N/0825433.0425W TO 395937.1450N/0825433.0420W. - NEW AIRNAV DATA INCORPORATED.
27. FAS DATA: UPDATED FPAP LATITUDE AND LONGITUDE FROM 395929.8120N/0825223.4570W TO 395929.8100N/0825223.4540W. - NEW FPAP LOCATION.
28. FAS DATA: UPDATED CRC REMAINDER FROM 13A76E25 TO 7FBBBD75B. - LTP/FTP AND FPAP LATITUDE/LONGITUDE UPDATED.

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

JON DENTON

Mar 09, 2021

OFFICE

FICO

DATE

02/26/2021

DEVELOPED BY

JON DENTON (BARBARA GORMAN)

Digitally signed by

JON DENTON

Mar 09, 2021

OFFICE

AJV-A432

DATE

11/20/2020

APPROVED BY

LONNIE EVERHART

Digitally signed by

JON DENTON

Mar 09, 2021

OFFICE

AJV-A430

DATE

TITLE

MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KCMH
RUNWAY	RW10R
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	Y
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W10A
LTP/FTP LATITUDE	395937.1450N
LTP/FTP LONGITUDE	0825433.0420W
LTP/FTP ELLIPSOIDAL HEIGHT	+02113
FPAP LATITUDE	395929.8100N
FPAP LONGITUDE	0825223.4540W
THRESHOLD CROSSING HEIGHT (TCH)	00054.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0000
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	35.0
 CRC REMAINDER	 7FBBD75B

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K5
LTP ORTHOMETRIC HEIGHT	+02453
FPAP ORTHOMETRIC HEIGHT	+02453

