

**FEDERAL AVIATION ADMINISTRATION**  
**FLIGHT STANDARDS SERVICE**  
**RNAV (RNP) 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> KCMH	<u><b>PROCEDURE NAME</b></u> RNAV (RNP) Z RWY 10L	<u><b>ORIGINAL/AMENDMENT</b></u> 2	<u><b>CITY</b></u> COLUMBUS	<u><b>STATE</b></u> OH		
<u><b>AIRPORT ELEVATION</b></u> 815	<u><b>TDZE</b></u> 815	<u><b>SUPERSEDED</b></u> RNAV (RNP) Z RWY 10L	<u><b>ORIGINAL/AMENDMENT</b></u> 1C	<u><b>DATED</b></u> 09/13/2018	<u><b>MAG VAR</b></u> 7W	<u><b>EPOCH YEAR</b></u> 2015
<u><b>FACILITY</b></u> RNAV	<u><b>COORDINATES OF FACILITIES</b></u>	<u><b>ACTUAL EFFECTIVE DATE</b></u> 22 APRIL 2021	<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>
YUKAN	IAF	EVELE		TF	FB	1.00	030.57	3.70	3900
EVELE		MESRE		TF	FB	1.00	071.06	2.23	3300
MADZY	IAF	JARTO		TF	FB	1.00	170.10	3.57	3900
JARTO		MESRE		TF	FB	1.00	131.07	2.10	3300
AMITE	IAF	POGLE		TF	FB	1.00	101.01	3.50	4000
POGLE		MESRE		TF	FB	1.00	101.06	2.16	3300
SLATS	IF	ELTEE		TF	FB	1.00	281.05	3.72	5100
ELTEE		CCREW		RF	FB	1.00	(2.89 NM RADIUS CW (CFFDP))	9.08	2300
WILGO	IF	HINDO		TF	FB	1.00	281.23	3.46	4900
HINDO		OMANY		RF	FB	1.00	(2.60 NM RADIUS CCW (CFFDM))	2.83	4000
OMANY		FANAS		RF	FB	1.00	(2.60 NM RADIUS CCW (CFFDM))	4.08	2700
FANAS		CCREW		RF	FB	1.00	(2.60 NM RADIUS CCW (CFFDM))	1.26	2300
MESRE	IF	CCREW		TF	FB	1.00	101.09	3.20	2300
CCREW	PFAF	RW10L	MAP	TF	FO	0.30	101.14	4.51	
RW10L	MAP	1400 MSL		CA			101.14		1400
1400 MSL		APE VORTAC		DF	FO	1.00			3000

QUALITY  
24  
CHECKED

**MISSED APPROACH**

**MAP:**

RNP: DA

**MISSED APPROACH INSTRUCTIONS:**

CLIMB TO 1400 THEN CLIMBING LEFT 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. PROFILE STARTS AT CCREW					
3. FAC:	101.14	PFAF: CCREW	DIST PFAF TO MAP:	DIST PFAF TO THLD:	
4. MIN ALT:	CCREW 2300				
5. DIST TO THLD FROM OM:	4.51	MM:	IM:	150 HAT:	333 HAT: 0.89
6. MIN GP INCPT:	2300	GP ALT AT PFAF :	CCREW 2300	OM:	GS ANT:
7. GP ANGLE:	3.00	34:1: IS CLEAR	20:1: IS CLEAR	TCH: 50.1	MM:
8. MSA FROM:	RW10L 3100				

**PBN REQUIREMENTS NOTE:**

RNP AR APCH.

**NOTES:**

CHART NOTE: SIMULTANEOUS APPROACH AUTHORIZED.  
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, PROCEDURE NA BELOW -19°C OR ABOVE 54°C.  
CHART PROFILE NOTE: SEE PLANVIEW FOR MULTIPLE IF LOCATIONS.  
CHART PLANVIEW NOTE ADJACENT TO SLATS: RF REQUIRED.  
CHART PLANVIEW NOTE ADJACENT TO WILGO: RF REQUIRED.  
CHART NOTE: FOR INOPERATIVE ALS, INCREASE RNP 0.30 ALL CATS VISIBILITY TO RVR 6000.  
CHART SPEED ICON IN PLANVIEW AT SLATS: MAX 210 KIAS.  
CHART SPEED ICON IN PLANVIEW AT WILGO: MAX 210 KIAS.  
CHART SPEED ICON IN PLANVIEW AT YUKAN: MAX 210 KIAS.  
CHART SPEED ICON IN PLANVIEW AT MADZY: MAX 210 KIAS.

**ADDITIONAL FLIGHT DATA:**

CHART MANDATORY 5000 AT MADZY.  
CHART MANDATORY 5000 AT YUKAN.  
CHART MANDATORY 6000 AT SLATS.  
CHART MANDATORY 6000 AT WILGO.  
HOLD NE, RT, 235.00 INBOUND.



**MINIMUMS:**

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

ALTERNATE: NA ☐ STANDARD

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
AUTHORIZATION REQUIRED															
RNP 0.13 DA	1148	2600	333	1148	2600	333	1148	2600	333	1148	2600	333			
RNP 0.26 DA	1198	3500	383	1198	3500	383	1198	3500	383	1198	3500	383			
RNP 0.30 DA	1216	4000	401	1216	4000	401	1216	4000	401	1216	4000	401			

**CHANGES - REASONS**

1. RNP 0.13 DA INCREASED FROM 1142/327 TO 1148/333; VISIBILITY DECREASED FROM RVR 4000 TO RVR 2600. - NEW OBSTACLE EVALUATION; NEW INOP VISIBILITY TABLE USED.
2. RNP 0.26 DA INCREASED FROM 1193/378 TO 1198/383; VISIBILITY DECREASED FROM RVR 4000 TO RVR 3500. - NEW OBSTACLE EVALUATION; NEW INOP VISIBILITY TABLE USED.
3. RNP 0.30 DA DECREASED FROM 1246/431 TO 1216/401; VISIBILITY DECREASED FROM RVR 5000 TO RVR 4000. - NEW OBSTACLE EVALUATION; NEW INOP VISIBILITY TABLE USED.
4. TERMINAL ROUTES: INITIAL SEGMENTS PIZZA-CABMI AND LIMPS-CABMI REMOVED; ADDED IAF TRANSITIONS FROM YUKAN, EVELE, MADZY, JARTO, AMITE AND POGLE. - PER ATC REQUEST.
5. TERMINAL ROUTES: INTERMEDIATE CABMI-ALEME REMOVED; INTERMEDIATES SLATS-ELTEE, ELTEE-CCREW, WILGO-HINDO, HINDO-OMANY, OMAN-Y-FANAS, FANAS-CCREW, AND MESRE-CCREW ADDED. - PER FPT REQUEST.
6. TERMINAL ROUTES: FINAL ALEME TO RW10L UPDATED TO CCREW TO RW10L; FINAL COURSE/DISTANCE UPDATED FROM 101.12/5.76 TO 101.14/4.51. - PFAF MOVED PER FPT REQUEST.
7. TERMINAL ROUTES: MISSED APPROACH CA LEG COURSE UPDATED FROM 101.12 TO 101.14. - FINAL COURSE UPDATED.
8. PROFILE LINE 2: UPDATED PROFILE STARTS AT CABMI TO PROFILE STARTS AT CCREW. - PFAF UPDATED.
9. PROFILE LINE 4: UPDATED MIN ALT CABMI 3000, ALEME 2700 TO CCREW 2300. - MULTIPLE IF LOCATIONS. PFAF UPDATED.
10. PROFILE LINE 5: UPDATED DIST TO THLD FROM PFAF: 5.76, 327 HAT: 0.87 TO DIST TO THLD FROM OM: 4.51, 333 HAT: 0.89. - PFAF UPDATED AND MOVED, LOWEST DA UPDATED AFTER NEW OBSTACLE EVALUATION.
11. PROFILE LINE 6: MIN GP INCPT UPDATED FROM 2700 TO 2300; GP ALT AT FAF UPDATED FROM ALEME TO CCREW 2300. - IF/IAF AND FAF UPDATED AND MOVED.
12. PROFILE LINE 7: UPDATED TCH FROM 50.1# TO 50.1. - # REMOVED, ADDITIONAL FLIGHT DATA NOTE NO LONGER REQUIRED.
13. UPDATED CHART NOTE FROM "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, PROCEDURE NA BELOW -18C OR ABOVE 54C" TO "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, PROCEDURE 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.
14. REMOVED CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT LIMPS ON V45 SOUTHWEST BOUND. - INITIAL FROM LIMPS REMOVED.
15. ADDED CHART PROFILE NOTE: SEE PLANVIEW FOR MULTIPLE IF LOCATIONS. - IAW 8260.19I 8-6-7 B(3)B.
16. ADDED CHART PLANVIEW NOTE ADJACENT TO SLATS: RF REQUIRED. - IAW 8260.19I 4-5-3 A.
17. ADDED CHART PLANVIEW NOTE ADJACENT TO WILGO: RF REQUIRED. - IAW 8260.19I 4-5-3 A.
18. UPDATED CHART NOTE: FROM "FOR INOPERATIVE ALS, INCREASE RNP 0.13 ALL CATS VISIBILITY TO RVR 5500, INCREASE RNP 0.26 ALL CATS VISIBILITY TO 1 1/4 SM AND INCREASE RNP 0.30 ALL CATS VISIBLTY TO 1 1/2 SM" TO "FOR INOPERATIVE ALS, INCREASE RNP 0.30 ALL CATS VISIBLTY TO RVR 6000." - ALL LINES OF MINIMA UPDATED PER NEW TARGETS EVALUATION.
19. ADDED "CHART SPEED ICON IN PLANVIEW AT SLATS: MAX 210 KIAS," ". . . AT WILGO: MAX 210 KIAS," ". . . AT YUKAN: 210 KIAS," AND ". . . AT MADZY: 210 KIAS". - PER FPT REQUEST, IAW 8260.19I 4-6-10 G.
20. ADDED ADDITIONAL FLIGHT DATA: CHART MANDATORY 5000 AT MADZY, CHART MANDATORY 5000 AT YUKAN, CHART MANDATORY 6000 AT SLATS, AND CHART MANDATORY 6000 AT WILGO. - PER FPT REQUEST; IAW 8260.19I 8-6-10 N.
21. REMOVED ADDITIONAL FLIGHT DATA: "ROUTE TYPE: A, H," "ROUTE TYPE QUALIFIER 1: F" AND "ROUTE TYPE QUALIFIER 2: S." - NO LONGER A DOCUMENTATION REQUIREMENT.
22. REMOVED ADDITIONAL FLIGHT DATA: #TCH 864.8 MSL (DO NOT CHART). - NO LONGER REQUIRED.

QUALITY  
24  
CHECKED

**AIRPORT ID**  
KCMH

**PROCEDURE NAME**  
RNAV (RNP) Z RWY 10L

**ORIGINAL/AMENDMENT**  
2

**CITY**  
COLUMBUS

**STATE**  
OH

**COORDINATED WITH:**

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

**FLIGHT CHECKED BY**

Jeffrey W Haring

*Digitally signed by*

**JON DENTON**

Mar 09, 2021

**OFFICE**

FICO

**DATE**

03/09/2021

**DEVELOPED BY**

JON DENTON (BARBARA GORMAN)

*Digitally signed by*

**JON DENTON**

Mar 09, 2021

**OFFICE**

AJV-A432

**DATE**

12/02/2020

**APPROVED BY**

LONNIE EVERHART

*Digitally signed by*

**JON DENTON**

Mar 09, 2021

**OFFICE**

AJV-A430

**DATE**

**TITLE**  
MANAGER

