

<b>RNAV - STANDARD</b> <b>INSTRUMENT APPROACH PROCEDURE</b> <b>TITLE 14 CFR PART 97.33</b>							Bearings, headings, courses, 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 in feet RVR.												
<b>TERMINAL ROUTES</b>										<b>MISSED APPROACH</b>									
FROM		TO			COURSE AND DISTANCE			ALTITUDE		LPV: DA LNAV/VNAV: DA LNAV: RW23  CLIMB TO 2300 DIRECT EDURE AND HOLD.  ADDITIONAL FLIGHT DATA: HOLD SW, RT, 051.55 INBOUND. CHART FAS OBST: 417 TANK 335812N/0810525W. CHART 520 TOWER 335919N/0810136W. CHART R-6001 A & B. DISTANCE TO THLD FROM 290 HAT: 0.75 NM. CHART VDP AT 1.31 NM TO RW23* *LNAV ONLY. WAAS CHANNEL # 40026 REFERENCE PATH ID: W23A LTP HAE: 32.7 M									
COINT		UXPIG (TF) (FB) (RNP 2.00)			288.49 / 12.67			2400											
WIDER		BEFTY (TF) (FB) (RNP 2.00)			101.86 / 12.07			2400											
BEFTY (IAF)		NOTBE (TF) (FB) (RNP 1.00)			141.71 / 5.67			2400											
UXPIG (IAF)		NOTBE (TF) (FB) (RNP 1.00)			321.79 / 5.00			2400											
NOTBE (IF)		ZENSY (TF) (FB) (RNP 1.00)			231.75 / 6.31			1800											
(SEE FORM 8260-10)																			
1. PT _____ SIDE OF COURSE _____ OUTBOUND _____ FT WITHIN _____ MILES OF _____ (IAF) 2. PROFILE STARTS AT NOTBE _____ 3. FAC: <u>231.70</u> FAF: <u>ZENSY</u> DIST FAF TO MAP: <u>4.76</u> THLD: <u>4.76</u> 4. MIN. ALT: <b>NOTBE 2400, ZENSY 1800, HOMOL/2.00 NM TO RW23 900*</b> 5. DIST TO THLD FROM OM: _____ MM: _____ IM: _____ 150 HAT: _____ 100 HAT: _____ GS ANT: _____ 6. MIN GS INCPT: <u>1800</u> GS ALT AT: <u>ZENSY 1800</u> OM: _____ MM: _____ IM: _____ 7. GS ANGLE: <u>3.00</u> TCH: <u>54.0</u> 34:1 IS NOT CLEAR 8. MSA FROM: <b>RW23 3100</b>																MAG VAR: 7W		EPOCH YEAR: 2020	
<b>MINIMUMS</b>																			
TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT								ALTERNATE: N A		<b>STANDARD</b>									
CATEGORY =====>		A			B			C			D			E					
	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA				
LPV DA	503	5000	290	503	5000	290	503	5000	290	503	5000	290							
LNAV/VNAV DA	699	1 3/4	486	699	1 3/4	486	699	1 3/4	486	699	1 3/4	486							
LNAV MDA	680	5000	467	680	5000	467	680	6000	467	680	1 1/2	467							
CIRCLING	740	1	504	740	1	504	840	1 3/4	604	880	2	644							
NOTES: CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -15C (5F) OR ABOVE 48C (118F). CHART NOTE: DME/DME RNP-0.3 NA. CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}). CHART NOTE: RWY 23 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. (CONTINUED ON PAGE 2)																			
CITY AND STATE <b>COLUMBIA, SC</b>				ELEVATION: 236 TDZE: 213 AIRPORT NAME: <b>COLUMBIA METROPOLITAN</b>				FACILITY IDENTIFIER: <b>RNAV</b>				PROCEDURE NO./AMDT NO./EFFECTIVE DATE: <b>RNAV (GPS) RWY 23, AMDT 2B</b>				SUP: AMDT: <b>2A</b> DATED <b>09/14/2017</b>			

QUALITY  
 20  
 CHECKED

ALL AFFECTED PROCEDURES REVIEWED? <div><input type="checkbox"/> YES</div> <div><input type="checkbox"/> NO</div>		COORDINATES OF FACILITIES		REQUIRED EFFECTIVE DATE <div>ROUTINE</div>	
COORDINATED WITH: <div><div>ATA<div><input checked="" type="checkbox"/></div></div><div>AAT<div><input type="checkbox"/></div></div><div>ALPA<div><input checked="" type="checkbox"/></div></div><div>APA<div><input checked="" type="checkbox"/></div></div><div>AOPA<div><input checked="" type="checkbox"/></div></div><div>NBAA<div><input checked="" type="checkbox"/></div></div><div>OTHER (specify)<div><input checked="" type="checkbox"/> ZJX, CAE APP CON, CAE ATCT, AIRPORT MANAGER</div></div></div>					
FLIGHT CHECKED BY					
NAME: FLIGHT INSPECTION REVIEW NOT REQUIRED-PROCESSED IAW FLIGHT INSPECTION TEAM (AJW-333) MEMO, MAY 30, 2017.			FIFO	DATE:	
DEVELOPED BY					
NAME: <div><div>Digitally signed by</div><div>LIAM DONAHUE <i>LIAM DONAHUE</i></div><div>Aug 30, 2017</div></div>			FIFO	DATE:	
			AJV-5431	08/22/2017	
APPROVED BY					
NAME: <div>PATRICK MULQUEEN</div>			FIFO	DATE:	
			AJV-5430	MANAGER	
CHANGES: 1. DELETED "CHART ASR" FROM ADDITIONAL FLIGHT DATA. 2. CHANGED LNAV/VNAV CAT C VISIBILITY FROM 1 5/8 TO 1 3/4.					
REASONS: 1. ASR DECOMMISSIONED 7/24/14. 2. 1 5/8 ENTERED IN ERROR.					



US DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION  
RNAV - STANDARD  
INSTRUMENT APPROACH PROCEDURE - TITLE 14 CFR PART 97.33

Bearings, headings, courses, 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 in feet RVR.

TERMINAL ROUTES, (CONT.):

FROM	TO	COURSE AND DISTANCE	ALTITUDE
ZENSY (FAF)	HOMOL/2.00 NM TO RW23 (TF) (FB) (RNP 0.30)	231.70 / 2.76	
HOMOL/2.00 NM TO RW23	RW23 (MAP) (TF) (FO) (RNP 0.30)	231.70 / 2.00	
RW23 (MAP)	503 MSL (CA)		
503 MSL	EDURE (DF) (FO) (RNP 1.00)		2300

NOTES, (CONT.):

CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT WIDER ON V155 SOUTHWEST BOUND AND V53 NORTHWEST BOUND.

CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT COINT ON V56 EASTBOUND.

CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT BEFTY ON V37 NORTHBOUND.

QUALITY  
20  
CHECKED

CITY AND STATE  
COLUMBIA, SC

ELEVATION: 236 TDZE: 213  
AIRPORT NAME:  
COLUMBIA METROPOLITAN

FACILITY  
IDENTIFIER:  
RNAV

PROCEDURE NO./AMDT NO./EFFECTIVE DATE:  
RNAV (GPS) RWY 23, AMDT 2B

SUP:  
AMDT: 2A  
DATED: 09/14/2017

ALL AFFECTED PROCEDURES REVIEWED? <div><input type="checkbox"/> YES</div> <div><input type="checkbox"/> NO</div>		COORDINATES OF FACILITIES		REQUIRED EFFECTIVE DATE	
COORDINATED WITH:					
ATA <div><input type="checkbox"/></div>		AAT <div><input type="checkbox"/></div>	ALPA <div><input type="checkbox"/></div>	APA <div><input type="checkbox"/></div>	AOPA <div><input type="checkbox"/></div>
NBAA <div><input type="checkbox"/></div>		OTHER (specify) <div><input type="checkbox"/></div>			
FLIGHT CHECKED BY					
NAME:				FIFO	DATE:
DEVELOPED BY					
NAME:				FIFO	DATE:
APPROVED BY					
NAME:				FIFO	DATE:
CHANGES:					
REASONS:					



**RNAV STANDARD INSTRUMENT APPROACH PROCEDURE  
FLIGHT STANDARDS SERVICE - FAR PART 97.33**

Bearings, headings, courses, 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 in feet RVR.

**FAS DATA BLOCK INFORMATION**

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KCAE
RUNWAY	RW23
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W23A
LTP/FTP LATITUDE	335631.9495N
LTP/FTP LONGITUDE	0810627.8835W
LTP/FTP ELLIPSOIDAL HEIGHT	+00327
FPAP LATITUDE	335528.4500N
FPAP LONGITUDE	0810743.1400W
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	0616
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
 <u>CRC REMAINDER</u>	 1EECB384

**ADDITIONAL PATH POINT RECORD INFORMATION**

ICAO CODE	K7
LTP ORTHOMETRIC HEIGHT	+00638
FPAP ORTHOMETRIC HEIGHT	+00638

QUALITY  
20  
CHECKED

CITY AND STATE  COLUMBIA, SC	ELEVATION: 236 AIRPORT NAME:  COLUMBIA METROPOLITAN	TDZE: 213  RNAV	PROCEDURE NO./AMDT NO./EFFECTIVE DATE:  RNAV (GPS) RWY 23, AMDT 2B	SUP:
				AMDT: 2A
				DATED: 09/14/2017

ALL AFFECTED PROCEDURES REVIEWED? <input type="checkbox"/> YES <input type="checkbox"/> NO		COORDINATES OF FACILITIES		REQUIRED EFFECTIVE DATE	
COORDINATED WITH:					
ATA <input type="checkbox"/>	AAT <input type="checkbox"/>	ALPA <input type="checkbox"/>	APA <input type="checkbox"/>	AOPA <input type="checkbox"/>	NBAA <input type="checkbox"/>
OTHER (specify) <input type="checkbox"/> _____					
FLIGHT CHECKED BY					
NAME:				FIFO	DATE:
DEVELOPED BY					
NAME:				FIFO	DATE:
APPROVED BY					
NAME:				FIFO	DATE:
CHANGES:					
REASONS:					



STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD																			
PART - A OBSTRUCTION DATA																			
1. APP SEGMENT		FROM		TO		OBSTRUCTION		COORDINATES		ELEV. MSL	ROC	ALT. ADJUSTMENTS		MIN. ALT.					
FEEDER		COINT		UXPIG		1. TOWER (45-000654)		340550.00N/0804550.00W		2049 (5D)	1000	SA-997 AT348		2400					
						2. TERRAIN		340116.00N/0805202.00W		540 (500)		AS1500		2000					
FEEDER		WIDER		BEFTY		3. TOWER (45-000649)		340828.00N/0810322.00W		1325 (4D)	1000			2400					
						4. TERRAIN		341127.00N/0810206.00W		410 (400)		AS1500		1900					
INITIAL		BEFTY		NOTBE		3. TOWER (45-000649)		340828.00N/0810322.00W		1325 (4D)	1000			2400					
						5. TERRAIN		340954.00N/0805730.00W		470 (500)		AS1500		2000					
INITIAL		UXPIG		NOTBE		6. TOWER (45-002168)		340117.00N/0805207.00W		800 (5D)	1000	AT600		2400					
						7. TERRAIN		340118.00N/0805221.00W		516 (500)		AS1500		2000					
INTERMEDIATE		NOTBE		ZENSY		8. TOWER (45-000105)		340324.00N/0805849.00W		997 (3C)	500	AT303		1800					
						9. TERRAIN		340324.00N/0805221.00W		410 (400)		AS1000		1400					
FINAL: LPV		ZENSY		RW23		10. TREE (KCAE0021)		335650.61N/0810603.75W		283 (1A)	27.03:1			503/290					
FINAL: LNAV/VNAV		ZENSY		RW23		ROD TWR (KCAE0115)		335700.17N/0810458.00W		384 (2C)	23.4:1	AC20		699/486					
FINAL: LNAV		ZENSY		HOMOL/2.00 NM TO		12. TOWER (45-000195)		335919.00N/0810136.00W		520 (3C)	250	DG130		900					
				RW23															
2. PROCEDURE TURN																			
3. MISSED APPROACH	MAP:		DA / DA / RW23		EDURE						ASC			2300					
							14. TOWER (45-002293)		334959.95N/0811850.59W		780 (2C)	1000	1800						
	ELEV:		283/405/430				15. TERRAIN		335014.61N/0811238.25W		562 (600)		AS1500 2100						
4. CIRCLING AREA		DISTANCE		HT. ABV. ARPT.															
CATEGORY A		1.3 NM		REQUIRED	350	ACTUAL	504		16. TREE (KCAE0114)		335741.76N/0810825.54W		429 (2C)	300			740		
CATEGORY B		1.5 NM			450		504		17. TREE (KCAE0116)		335806.69N/0810811.02W		435 (2C)	300			740		
CATEGORY C		1.7 NM			450		604		18. TOWER (45-002061)		335433.00N/0810556.00W		480 (5D)	300	AC50		840		
CATEGORY D		2.3 NM			550		644		19. ROD ON MCWV TWR		335804.86N/0811021.63W		563 (2C)	300			880		
CATEGORY E		4.5 NM			550														
5. MINIMUM SAFE ALTITUDES													PRIMARY NAVAID: RW23						
SECTOR		OBSTRUCTION		BRG/DIST		ELEVATION (MSL)		M S A		SECTOR		OBSTRUCTION		BRG/DIST		ELEVATION (MSL)		M S A	
360-360		TWR (45-000654)		068/19.5		2049 (5D)		3100											
CITY AND STATE				ELEVATION: 236				FACILITY		PROCEDURE AND AMENDMENT NO:				REGION					
COLUMBIA, SC				AIRPORT NAME: COLUMBIA METROPOLITAN				RNAV		RNAV (GPS) RWY 23, AMDT 2B				ASO					

PART B - SUPPLEMENTAL DATA										PART C - REMARKS:																			
1. COMMUNICATIONS WITH:					2. WEATHER SERVICE					3. ALTIMETER SETTING					PRECIPITOUS TERRAIN EVALUATION COMPLETED.														
CAE TOWER CAE APP CON ZJX ARTCC							N W S		OTHER: ASOS					SOURCE:KCAE					VGSI DATA: 3.00/69.3										
							F A A							DISTANCE:					NO ADDITIONAL AIRSPACE REQUIRED.										
							A / C							HOURS REMOTE OPERATION: 0/YES					LPV: INNER SURFACE = 27:1 OUTER SURFACE = 34:1 LNAV/VNAV: INNER SURFACE = 23.4:1 OUTER SURFACE= 34:1										
SATISFACTORY ON:					LOCATION: KCAE					ADJUSTMENT: 0					OBST 1: OBSTACLE IS 12087 FT INTO SECONDARY AREA.														
4. MONITOR STATUS					PRIMARY NAVAID:										VISUAL PORTION OF FINAL PENETRATIONS: 34:1 KCAEA014 282 TREE 335649.02N-0810615.61W KCAEA013 273 TREE 335648.03N-0810615.37W KCAEA012 272 TREE 335647.76N-0810617.24W KCAEA011 257 TREE 335644.24N-0810612.96W KCAEA008 252 TREE 335638.14N-0810611.40W KCAEA005 245 TREE 335642.63N-0810621.46W KCAE0018 286 TREE 335649.02N-0810615.61W KCAE0017 282 TREE 335647.77N-0810617.15W KCAE0015 258 TREE 335638.14N-0810611.40W KCAE0001 239 TREE 335642.96N-0810622.21W														
					MONITOR POINT:																								
					HRS OPTN:		CAT 1																						
5. APPROACH & RUNWAY LIGHTING					X		ALSF-2 11								RWY 23 THLD DISPLACED 1000'														
							(S) SALS																						
					X		MALSR 05, 29																						
					X		HIRL 05, 11, 23, 29																						
							MIRL																						
					X		REIL 05, 23																						
					X		TDZ 11, 23																						
					X		C/L 11, 29																						
					X		OTHER (SPECIFY) PAPI-4R 05 PAPI-4L 11, 23, 29																						
6. RUNWAY MARKINGS					BASIC										BACKUP ALTIMETER SOURCE NOT REQUIRED, AIRPORT HAS REDUNDANT ALTIMETER SOURCES.														
					ALL WEATHER PIR-G 05, 11, 23, 29																								
					INSTRUMENT																								
7. RUNWAY VISUAL RANGE					APPROACH 05, 11, 23, 29										VEGETATION ASSUMED TO BE 100'.														
					MIDFIELD 11, 29																								
					ROLL OUT 11, 29																								
8. GLIDE PATH					GP ANGLE: 3.00					ELEV RWY THRESHOLD:209.2					TAA NOT DEVELOPED. ATC REQUEST.														
					DISTANCE FROM RWY:					ELEV GP ANTENNA:																			
										THRESHOLD CROSSING HEIGHT:54.0																			
9. FINAL APPROACH COURSE AIMING					X		RUNWAY THRESHOLD								FT. FROM THRESHOLD														
					X		ON CENTERLINE								FT. FROM CENTERLINE														
10. WAIVERS: NONE																													
PART D - PREPARED BY: LIAM DONAHUE										DATE: 08/22/2017																			
TITLE: AERONAUTICAL INFORMATION SPECIALIST										OFFICE: AJV-5431																			





STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD		
--	--	--

## PART - A OBSTRUCTION DATA

[illegible]

PART B - SUPPLEMENTAL DATA										PART C - REMARKS:	
1. COMMUNICATIONS WITH:				2. WEATHER SERVICE			3. ALTIMETER SETTING				
SATISFACTORY ON:					N W S	OTHER:		SOURCE:			
					F A A			DISTANCE:			
					A / C			HOURS REMOTE OPERATION:			
	V H F		U H F		H F	LOCATION:			ADJUSTMENT:		
4. MONITOR STATUS		PRIMARY NAVAID:									
		MONITOR POINT:									
		HRS	CAT 1								
		OPTN:	CAT 3								
5. APPROACH & RUNWAY LIGHTING			ALS								
			(S) SALS								
			MALS								
			HIRL								
			MIRL								
			REIL								
			TDZ								
			C/LINE								
6. RUNWAY MARKINGS		BASIC									
		ALL WEATHER									
		INSTRUMENT									
7. RUNWAY VISUAL RANGE		APPROACH									
		MIDFIELD									
		ROLL OUT									
8. GLIDE PATH		GP ANGLE:				ELEV RWY THRESHOLD:					
		DISTANCE FROM RWY:				ELEV GP ANTENNA:					
						THRESHOLD CROSSING HEIGHT:					
9. FINAL APPROACH COURSE AIMING				RUNWAY THRESHOLD					FT. FROM THRESHOLD		
				ON CENTERLINE					FT. FROM CENTERLINE		
10. WAIVERS:											
PART D - PREPARED BY:										DATE:	
TITLE:										OFFICE:	

