

**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</u> CHARLESTON AFB/INTL	<u>AIRPORT ID</u> KCHS	<u>PROCEDURE NAME</u> RNAV (GPS) Y RWY 21	<u>ORIGINAL/AMENDMENT</u> 3	<u>CITY</u> CHARLESTON	<u>STATE</u> SC	
<u>AIRPORT ELEVATION</u> 46	<u>TDZE</u> 43	<u>SUPERSEDED</u> RNAV (GPS) Y RWY 21	<u>ORIGINAL/AMENDMENT</u> 2B	<u>DATED</u> 12/11/2014	<u>MAG VAR</u> 7W	<u>EPOCH YEAR</u> 2010
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u>	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>		

TERMINAL ROUTES

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>LEG TYPE</u>	<u>FO/FB</u>	<u>RNP</u>	<u>COURSE</u>	<u>DISTANCE</u>	<u>ALTITUDE</u>
CHS VORTAC		ALGOE		TF	FO	1.00	030.84	12.34	3000
GMSTR	IAF	CANID	NOPT	TF	FB	1.00	327.27	23.71	4000
RIKKI	IAF	ANNDI	NOPT	TF	FB	1.00	261.33	11.76	4000
ANNDI	IAF	ALGOE	NOPT	TF	FB	1.00	211.79	4.85	3000
LOFTI	IAF	CEBTI	NOPT	TF	FB	1.00	015.23	19.73	4000
SEAMS	IAF	POETS	NOPT	TF	FB	1.00	097.65	8.66	4000
CANID	IAF	ALGOE	NOPT	TF	FB	1.00	300.61	7.00	3000
CEBTI	IAF	POETS	NOPT	TF	FB	1.00	033.04	8.19	4000
POETS	IAF	DAGBE	NOPT	TF	FB	1.00	097.81	7.67	3300
DAGBE	IAF	ALGOE	NOPT	TF	FB	1.00	122.31	7.00	3000
ALGOE	IF/IAF	AKETE		TF	FB	1.00	211.46	6.81	1700
AKETE	FAF	RW21	MAP	TF	FO	0.30	211.43	5.06	
RW21	MAP	293 MSL		CA			211.43		
293 MSL		HERTZ		DF	FO	1.00			3000



MISSED APPROACH

MAP:
LPV: DA
LNAV/VNAV: DA
LNAV: RW21

MISSED APPROACH INSTRUCTIONS:
CLIMB TO 3000 DIRECT HERTZ AND HOLD, CONTINUE TO CLIMB-IN-HOLD TO 3000.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT	SIDE OF COURSE	OUTBOUND	FT WITHIN	MILES OF	(IAF)
2. HOLD NE ALGOE, RT, 211.46	INBOUND, 3000 FT. IN LIEU OF PT (IAF), MAX 6000.				
3. FAC:	211.43	FAF: AKETE	DIST FAF TO MAP: 5.06	DIST FAF TO THLD: 5.06	
4. MIN ALT:	ALGOE 3000, AKETE 1700				
5. DIST TO THLD FROM OM:	MM:	IM:	150 HAT:	250 HAT: 0.64	GS ANT:
6. MIN GP INCPT:	1700	GP ALT AT FAF : AKETE 1700	OM:	MM:	IM:
7. GP ANGLE:	3.00	34:1: IS CLEAR	20:1: IS CLEAR	TCH: 50.0	
8. MSA FROM:	RW21 3100				

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -5°C OR ABOVE 54°C.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON CHS VORTAC AIRWAY RADIALS 300 CW 055.

ADDITIONAL FLIGHT DATA:

HOLD SW, RT, 031.28 INBOUND.
FAS OBST: 244 AAO 325815N/0795830W.
CHART VDP AT 1.28 NM TO RW21*
*LNAV ONLY.
WAAS CHANNEL # 40499
REFERENCE PATH ID: W21A
CHART CIRCLING ICON.
LTP HAE: -20.8 M



MINIMUMS:

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

ALTERNATE: NA☐

STANDARD - CAT D 800-2 1/4

<u>CATEGORY:</u>	<u>A</u>			<u>B</u>			<u>C</u>			<u>D</u>			<u>E</u>		
<u>FINAL TYPE</u>	<u>DA/MDA</u>	<u>VIS</u>	<u>HAT/HAA</u>	<u>DA/MDA</u>	<u>VIS</u>	<u>HAT/HAA</u>	<u>DA/MDA</u>	<u>VIS</u>	<u>HAT/HAA</u>	<u>DA/MDA</u>	<u>VIS</u>	<u>HAT/HAA</u>	<u>DA/MDA</u>	<u>VIS</u>	<u>HAT/HAA</u>
LPV DA	293	3/4	250	293	3/4	250	293	3/4	250	293	3/4	250			
LNAV/VNAV DA	382	1	339	382	1	339	382	1	339	382	1	339			
LNAV MDA	500	1	457	500	1	457	500	1 3/8	457	500	1 3/8	457			
CIRCLING	540	1	494	540	1	494	600	1 1/2	554	740	2 1/4	694			



CHANGES - REASONS

1. LNAV/VNAV DA DECREASED FROM 446/403 TO 382/339. VISIBILITY DECREASED FROM 1 3/8 TO 1. - NEW LNAV/VNAV CONTROLLING OBSTACLE; UPDATED VISIBILITY VALUES IAW 8260.3D, TABLE 3-3-1.
2. CIRCLING CAT C MDA/HAA INCREASED FROM 540/494 TO 600/554; CAT D MDA/HAA INCREASED FROM 600/554 TO 740/694, CAT D VISIBILITY INCREASED FROM 2 TO 2 1/4. - NEW CIRCLING RADII APPLIED IAW 8260.3D, UPDATED VISIBILITY VALUES IAW 8260.3D, TABLE 3-3-1.
3. TERMINAL ROUTES: CHS VORTAC TO BAMDE UPDATED TO CHS VORTAC TO ALGOE; RNP/DISTANCE UPDATED FROM 2.00/12.33 TO 1.00/12.34. - BAMDE REMOVED PER FPT/ATC. RNP UPDATED IAW 8260.58A, TABLE 1-2-1.
4. TERMINAL ROUTES: RSRVE TO ANNDI UPDATED TO RIKKI TO ANNDI; COURSE/DISTANCE UPDATED FROM 261.29/11.77 TO 261.33/11.76. - RSRVE REMOVED PER FPT/ACT.
5. TERMINAL ROUTES: OSPRI TO LUTHR UPDATED TO SEAMS TO POETS; COURSE UPDATED FROM 097.65 TO 097.70. - OSPRI AND LUTHR REMOVED PER FPT/ATC.
6. TERMINAL ROUTES: CEBTI TO LUTHR, LUTHR TO DAGBE, DAGBE TO BAMDE, AND CANID TO BAMDE REMOVED. - DUPLICATE LINES.
7. TERMINAL ROUTES: BAMDE TO AKETE UPDATED TO ALGOE TO AKETE; DISTANCE UPDATED FROM 6.80 TO 6.81. RNP UPDATED FROM 0.50 TO 1.00. - BAMDE REMOVED PER FPT/ATC; IAW 8260.58A, TABLE 1-2-1.
8. TERMINAL ROUTES: RW21 TO 290 MSL UPDATED TO RW21 TO 293 MSL, REMOVED RNP 1.00, AND ADDED COURSE 211.43. - INCORPORATE P-NOTAM AMENDMENT IAW 8260.19H 8-3-4 C.2; RNP REMOVED AND COURSE ADDED IAW 8260.19H APPENDIX F, FIGURE 3.
9. TERMINAL ROUTES: 290 MSL TO FEPID UPDATED TO 293 MSL TO HERTZ; ADDED RNP 1.00. - INCORPORATE P-NOTAM AMENDMENT IAW 8260.19H 8-3-4 C.2; RNP ADDED IAW 8260.19H APPENDIX F, FIGURE 3; HERTZ REPLACED FEPID PER FPT.ATC.
10. UPDATED MISSED APPROACH INSTRUCTIONS FROM "CLIMB TO 3000 DIRECT FEPID AND HOLD" TO "CLIMB TO 3000 DIRECT HERTZ AND HOLD, CONTINUE TO CLIMB-IN-HOLD TO 3000." - CLIMB-IN-HOLD REQUIRED; HERTZ REPLACED FEPID.
11. PROFILE: LINES 2/5: BAMDE UPDATED TO ALGOE. - BAMDE REMOVED PER FPT/ATC.
12. PROFILE LINE 5: ADDED DISTANCE TO THLD FROM 250 HAT: 0.64; AND "DISTANCE TO THLD FROM 250 HATH: 0.63 NM" REMOVED FROM ADDITIONAL FLIGHT DATA. - LPV DA/HAT UPDATED.
13. PROFILE LINE 7: 34:1 IS NOT CLEAR UPDATED TO 34:1 IS CLEAR; ADDED 20:1 IS CLEAR. - NO 34:1 OR 20:1 PENETRATIONS EXIST.
14. CHART NOTES: DME/DME RNP 0.3 NA REMOVED; PBN REQUIREMENTS NOTE: RNP APCH ADDED. - IAW 8260.58A TABLE 1-2-1.
15. UPDATED CHART NOTE FROM "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -15C (5F) OR ABOVE 43C (109F)" TO "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -5C 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.
16. ADDED ADDITIONAL FLIGHT DATA: CHART CIRCLING ICON. - NEW CIRCLING RADII APPLIED IAW 8260.3D.
17. UPDATED ADDITIONAL FLIGHT DATA: FROM "CHART VDP AT 1.29 NM TO RW21*" TO CHART VDP AT 1.28 NM TO RW21*." - VERIFIED WITH TARGETS BUILD.
18. FAS DATA: CRC REMAINDER UPDATED FROM 079D0FA9 TO 74E185E4. - UPDATED FPAP LATITUDE/LONGITUDE FROM 325247.1200N/0800253.9700W TO 325247.1180N/0800253.9710W.
19. PROFILE LINE 2: HOLD-IN-LIEU MAX ALTITUDE 6000 ADDED. - MAX ALTITUDES MUST BE DOCUMENTED IAW 8260.19H PARA 8-6-7 B(2).
20. ALTERNATE MINIMUMS: CAT D 800-2 1/4 ADDED. - IAW 8260.3D TABLE 3-4-1.22.
21. TERMINAL ROUTES: DDENA TO CEBTI UPDATED TO LOFTI TO CEBTI; COURSE/DISTANCE UPDATED FROM 015.25/19.74 TO 015.23/19.73. - DDENA REMOVED PER FPT/ATC.
23. TERMINAL ROUTES: CEBTI TO LUTHR UPDATED TO CEBTI TO POETS; COURSE UPDATED FROM 033.10/8.18 033.04/8.19. - LUTHR REMOVED PER FPT/ATC.
24. TERMINAL ROUTES: LUTHR TO DAGBE UPDATED TO POETS TO DAGBE; COURSE UPDATED FROM 097.75/097.81. - LUTHR REMOVED PER FPT/ATC.
25. TERMINAL ROUTES: DAGBE TO BAMDE UPDATED TO DAGBE TO ALGOE; COURSE UPDATED FROM 122.39 TO 122.31. - BAMDE REMOVED PER FPT/ATC
26. TERMINAL ROUTES: ANNDE TO BAMDE UPDATED TO ANNDE TO ALGOE; DISTANCE UPDATED FROM 4.86 TO 4.85. - BAMDE REMOVED PER FPT/ATC.
27. TERMINAL ROUTES: CANID TO BAMDE UPDATED TO CANID TO ALGOE; COURSE UPDATED FROM 300.53 TO 300.61. - BAMDE REMOVED PER FPT/ATC.



COORDINATED WITH:

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

FLIGHT CHECKED BY

BRANDON VANDERSCHAAF

Digitally signed by

WARDELL HENNING

Sep 09, 2020

OFFICE

FICO

DATE

8/31/2020

DEVELOPED BY

WARDELL HENNING (BARBARA GORMAN)

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AJV-A432

DATE

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GEORGE DAVIS

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Sep 09, 2020

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	KCHS
RUNWAY	RW21
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	Y
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W21A
LTP/FTP LATITUDE	325408.4150N
LTP/FTP LONGITUDE	0800210.2490W
LTP/FTP ELLIPSOIDAL HEIGHT	-00208
FPAP LATITUDE	325247.1180N
FPAP LONGITUDE	0800253.9710W
THRESHOLD CROSSING HEIGHT (TCH)	00050.0
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
CRC REMAINDER	74E185E4

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K7
LTP ORTHOMETRIC HEIGHT	+00121
FPAP ORTHOMETRIC HEIGHT	+00121



FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD

AIRPORT	AIRPORT ID	PROCEDURE NAME	AMDT NO.	CITY	STATE	AIRPORT ELEVATION	FACILITY
CHARLESTON AFB/INTL	KCHS	RNAV (GPS) Y RWY 21	3	CHARLESTON	SC	46	RNAV

PART A: OBSTRUCTION DATA SEGMENTS

FEEDER

FROM CHS VORTAC TO ALGOE

<u>RNP</u>	<u>DISTANCE</u> 12.34	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>			<u>HMAS</u>				
<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
1.TOWER (45-000767)	325758.00N/0800233.00W	387	50	20	2C	1000				AT1613	3000
2.TERRAIN	325403.00N/0795954.00W	52 (100)								AS1500	1600

COMPUTATIONS

ALT KIAS KTAS HAA VKTW TR BA DTA COURSE CHANGE DVEB VEB OCS RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

INITIAL

FROM GMSTR TO CANID

<u>RNP</u>	<u>DISTANCE</u> 23.71	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>			<u>HMAS</u>					
<u>OBSTRUCTION</u>	<u>COORDINATES</u>		<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
3.TOWER (45-000706)	325529.00N/0794157.00W		2016	500	50	5D	1000				AT984	4000
4.TERRAIN	325924.00N/0794809.00W		62 (100)								AS1500	1600

COMPUTATIONS

ALT KIAS KTAS HAA VKTW TR BA DTA COURSE CHANGE DVEB VEB OCS RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



FACILITY
RNAV

QUALITY
25
CHECKED

FACILITY
RNAV

RF CENTER FIX/DISTANCERF CENTER FIX/DISTANCE

INITIAL

FROM

CANID

TO

ALGOE

RNP	DISTANCE	PAT	MAP	HAT	HMAS							
	7.00											
OBSTRUCTION	COORDINATES	ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT	
13.TOWER (45-000365)	330232.00N/0794836.00W	537	100	20	3C	1000				AT1463	3000	
14.TERRAIN	330645.00N/0795542.00W	55 (100)								AS1500	1600	

COMPUTATIONS	ALT	KIAS	KTAS	HAA	VKTW	TR	BA	DTA	COURSE CHANGE	DVEB	VEB OCS	RF CENTER FIX/DISTANCE
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SEGMENT REMARKS:

INITIAL

FROM

CEBTI

TO

POETS

RNP	DISTANCE	PAT	MAP	HAT	HMAS							
	8.19											
OBSTRUCTION	COORDINATES	ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT	
15.TOWER (45-000432)	330456.19N/0801705.85W	548	100	20	3C	1000				AT2452	4000	
16.TERRAIN	330703.00N/0801551.00W	85 (100)								AS1500	1600	

COMPUTATIONS	ALT	KIAS	KTAS	HAA	VKTW	TR	BA	DTA	COURSE CHANGE	DVEB	VEB OCS	RF CENTER FIX/DISTANCE
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SEGMENT REMARKS:



INITIAL

FROM
POETS

TO
DAGBE

RNP	DISTANCE 7.67	PAT	MAP	HAT			HMAS					
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
17.TOWER (45-052668)	330750.80N/0801352.10W		332	250	50	4D	1000				AT1968	3300
18.TERRAIN	330603.00N/0800754.00W		91 (100)								AS1500	1600

COMPUTATIONS	ALT	KIAS	KTAS	HAA	VKTW	TR	BA	DTA	COURSE CHANGE	DVEB	VEB OCS	RF CENTER FIX/DISTANCE
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SEGMENT REMARKS:

INITIAL

FROM
DAGBE

TO
ALGOE

RNP	DISTANCE 7.00	PAT	MAP	HAT			HMAS					
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
19.TOWER (45-000993)	330733.00N/0800220.00W		554	50	20	2C	1000				AT1446	3000
20.TERRAIN	330845.00N/0800336.00W		88 (100)								AS1500	1600

COMPUTATIONS	ALT	KIAS	KTAS	HAA	VKTW	TR	BA	DTA	COURSE CHANGE	DVEB	VEB OCS	RF CENTER FIX/DISTANCE
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SEGMENT REMARKS:



INTERMEDIATE

FROM

ALGOE (IF/IAF)

TO

AKETE

RNP	DISTANCE	PAT	MAP	HAT			HMAS					
	6.81											
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
21.TOWER (45-000825)	330007.00N/0795550.00W		503	100	20	3C	500				AT697	1700
22.TERRAIN	330000.00N/0795851.00W		49 (0)								AS1500	1500

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

FINAL: LPV

FROM

AKETE

TO

RW21

<u>RNP</u>	<u>DISTANCE</u> 5.06	<u>PAT</u>	<u>MAP</u> DA	<u>HAT</u> 250			<u>HMAS</u>					
<u>OBSTRUCTION</u>	<u>COORDINATES</u>		<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
23.TRAVERSE_WAY (45-051040)	325415.83N/0800202.18W		63	20	3	1A		34:1				293

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



FACILITY
RNAV

RF CENTER FIX/DISTANCERF CENTER FIX/DISTANCE

QUALITY
25
CHECKED

HOLD-IN-LIEU OF PT

FROM
ALGOE

TO
P-5

RNP	DISTANCE	PAT P-5	MAP	HAT			HMAS					
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
26.TOWER (45-000850)	331323.00N/0795619.00W		451	50	20	2C	1000				AT1549	3000
27.TERRAIN	331354.00N/0795806.00W		65 (100)								AS1500	1600

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

MISSED APPROACH : LPV

FROM
DA

TO
HERTZ

RNP	DISTANCE	PAT	MAP	HAT			HMAS 104					
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
								ASC				3000
28.TOWER (45-001871)	324547.00N/0800612.00W		303	50	20	2C	1000					1400
29.TERRAIN	325412.00N/0800233.00W		39 (0)								AS1500	1500

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



MISSED APPROACH : LNAV/VNAV

FROM

DA

TO

HERTZ

RNP	DISTANCE	PAT	MAP	HAT			HMAS 221					
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
								ASC				3000
28.TOWER (45-001871)	324547.00N/0800612.00W		303	50	20	2C	1000					1400
29.TERRAIN	325412.00N/0800233.00W		39 (0)								AS1500	1500

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

MISSED APPROACH : LNAV

FROM

RW21

TO

HERTZ

RNP	DISTANCE	PAT	MAP	HAT			HMAS 400					
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
								ASC				3000
28.TOWER (45-001871)	324547.00N/0800612.00W		303	50	20	2C	1000					1400
29.TERRAIN	325412.00N/0800233.00W		39 (0)								AS1500	1500

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



CIRCLING

☐ ALL CATS

☒ CAT A

☒ CAT B

☒ CAT C

☒ CAT D

☐ CAT E

☐ NOT AUTHORIZED

OBSTRUCTION	COORDINATES	RADIUS	HAA	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
CATEGORY A											
24.ATCT (45-000230)	325340.81N/0800137.05W	1.3	494	233	20	3	1A	300			540
CATEGORY B											
24.ATCT (45-000230)	325340.81N/0800137.05W	1.81	494	233	20	3	1A	300			540
CATEGORY C											
30.TOWER (45-051424)	325430.60N/0795850.41W	2.84	554	235	250	50	4D	300		AC50	600
CATEGORY D											
31.STACK (45-000456)	325355.00N/0795759.00W	3.7	694	422	100	20	3C	300			740

CIRCLING REMARKS:

MSA

CENTER	RADIUS
RW21	25

SECTOR	OBSTRUCTION	COORDINATES	BEARING	DISTANCE	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
360-360	TWR (45-000706)	325529.00N/0794157.00W	092	17.1	2016	500	50	5D	1000			3100

MSA REMARKS:

NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS:

VEGETATION HEIGHT: 100FT PER FPT.



PART B: SUPPLEMENTAL DATA

COMMUNICATIONS WITH

CHS APP CON, CHS TOWER, ZJX ARTCC

<u>WX SERVICE</u> ASOS	<u>LOCATION</u> KCHS	<u>HRS OPERATION</u> 24	<u>ALTIMETER SOURCE</u> KCHS	<u>DISTANCE</u> 0	<u>SERVICE-A</u> Y	<u>ADJUSTMENTS</u> 0
<u>BACK-UP WX SERVICE</u>	<u>LOCATION</u>	<u>HRS OPERATION</u>	<u>ALTIMETER SOURCE</u>	<u>DISTANCE</u>	<u>SERVICE-A</u>	<u>ADJUSTMENTS</u>

WX REMARKS:

BACKUP ALTIMETER NOT REQUIRED. REDUNDANT WEATHER SERVICE AVAILABLE.

<u>PRIMARY NAVAID</u>	<u>MONITOR POINT</u>	<u>HRS OPERATION</u>	<u>CAT</u>
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<u>APPROACH AND RUNWAY LIGHTING SYSTEM</u>	<u>RUNWAY MARKINGS</u>	<u>RUNWAY VISUAL RANGE</u>
RW03 - HIRL, REIL, PAPI-4L	PIR-G	
RW15 - TDZ, ALSF-2, HIRL, C/LINE, PAPI-4L	PIR-G	APPROACH, MIDPOINT, ROLL OUT
RW21 - HIRL, REIL, PAPI-4L	PIR-G	
RW33 - MALSR, HIRL, C/LINE, PAPI-4L	PIR-G	APPROACH, MIDPOINT, ROLL OUT

<u>GLIDESLOPE ANGLE</u> 3.00	<u>ELEV RWY THRESHOLD</u> 39.6	<u>TCH</u> 50.0	<u>ELEV GS ANTENNA</u>	<u>DISTANCE FROM RWY</u>	<u>VGSI ANGLE</u> 3.00	<u>TCH</u> 50.0
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FINAL APPROACH COURSE AIMING

RUNWAY THRESHOLD	<input checked="" type="checkbox"/>	FT FROM THRESHOLD	DISPLACED THRESHOLD DISTANCE
ON CENTERLINE	<input checked="" type="checkbox"/>	FT FROM CENTERLINE	

CRITICAL TEMPERATURES

<u>CRITICAL LOW</u> -5C	<u>CRITICAL HIGH</u> +54C	<u>ACT</u> -5C	<u>APT ISA</u> +14.91C
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CRITICAL TEMPERATURE REMARKS:

AVERAGE COLD TEMPERATURE DERIVED FROM 5-YEAR HISTORY (2015-2019).
CRITICAL LOW TEMPERATURE BASED ON ACT.
DESCENT RATE (FPM): STANDARD TEMP 956 HIGH TEMP 1261.

"VISUAL PORTION OF FINAL" PENETRATIONS

HELICOPTER 'VISUAL PORTION OF FINAL' PENETRATIONS



<u>AIRPORT</u> CHARLESTON AFB/INTL	<u>AIRPORT ID</u> KCHS	<u>PROCEDURE NAME</u> RNAV (GPS) Y RWY 21	<u>AMDT NO.</u> 3	<u>CITY</u> CHARLESTON	<u>STATE</u> SC	<u>AIRPORT ELEVATION</u> 46	<u>FACILITY</u> RNAV
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and/or

5280-FT "PROCEED VFR" SEGMENT LEVEL SURFACE AREA PENETRATIONS

PENETRATIONS REMARKS:

PART C: GENERAL REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

ORDER 8260.3, VOLUME 1, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED.

QUALITY
25
CHECKED

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<u>AIRPORT</u> CHARLESTON AFB/INTL	<u>AIRPORT ID</u> KCHS	<u>PROCEDURE NAME</u> RNAV (GPS) Y RWY 21	<u>AMDT NO.</u> 3	<u>CITY</u> CHARLESTON	<u>STATE</u> SC	<u>AIRPORT ELEVATION</u> 46	<u>FACILITY</u> RNAV
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PART D: AIRSPACE

DOCKET #

ALL DISTANCES TO 1/100NM; ELEVATION TO NEAREST 100 FEET; COORDINATES TO 1/100 SECOND; DEG TO 1/100 DEGREE

DISTANCE FROM	THLD	TO 1000FT POINT	2.86
WIDTH OF	FINAL	SEGMENT AT 1000FT POINT	1.20
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1000FT POINT	204.43
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1000FT POINT	0
DISTANCE FROM	THLD	TO 1500FT POINT	4.66
WIDTH OF	FINAL	SEGMENT AT 1500FT POINT	1.76
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1500FT POINT	204.43
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1500FT POINT	0

THRESHOLD
COORDINATES
(IF STR-IN)

325408.42N/0800210.25W

ARP COORDINATES

325355.10N/0800225.90W

RUNWAY APCH END
AND DIST FURTHEST
FROM ARP

RUNWAY 15 DISTANCE 0.94 NM

FAF
COORDINATES

325845.23N/0795941.19W

FIX NAME
COORDINATES

REMARKS

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FACILITY
RNAV

TITLE
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