

**UNITED STATES AIR FORCE
FLIGHT STANDARDS SERVICE
VOR OR TACAN STANDARD INSTRUMENT APPROACH PROCEDURE**

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> KCHS	<u>PROCEDURE NAME</u> HI - VOR OR TACAN RWY 15		<u>ORIGINAL/AMENDMENT</u> 4A	<u>CITY</u> CHARLESTON	<u>STATE</u> SC	
<u>AIRPORT ELEVATION</u> 46	<u>TDZE</u> 43	<u>SUPERSEDED</u> HI - VOR/DME OR TACAN RWY 15	<u>ORIGINAL/AMENDMENT</u> 4	<u>DATED</u> 08/02/2007	<u>MAG VAR</u> 5W	<u>EPOCH YEAR</u> 1985
<u>FACILITY</u> CHS	<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>
MUGSE/24.00 DME CCW	IAF	NUCID/24.00 DME					24.00 DME ARC		17000
NUCID/24.00 DME CCW		CATAM/24.00 DME					24.00 DME ARC		3000
CATAM/24.00 DME		LADRE/15.00 DME					157.00	9.00 (CHS R-337)	3000
LADRE/15.00 DME	IF	MYRAA/4.00 DME					157.00	11.00 (CHS R-337)	1100

MISSED APPROACH

MAP:

COLOT/1.23 DME FIX

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 500 THEN CLIMBING LEFT TURN TO 3500 ON CHS VORTAC R-055 TO WANDO/CHS 13.00 DME AND HOLD, CONTINUE CLIMB-IN-HOLD TO 3500.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)
2. PROFILE STARTS AT MUGSE
3. FAC: 157.00 FAF: MYRAA/4.00 DME DIST FAF TO MAP: DIST FAF TO THLD: 2.77
4. MIN ALT: MUGSE/24.00 DME 17000, NUCID/24.00 DME 17000, CATAM/24.00 DME 3000, LADRE/15.00 DME 3000, MYRAA/4.00 DME 1100
8. MSA FROM: CHS VORTAC 3100, ESA W/IN 100 NM 3200

EQUIPMENT REQUIREMENTS NOTES:

DME REQUIRED.

NOTES:

CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART NOTE: FOR INOPERATIVE ALS, INCREASE S-15 CAT C/D/E RVR TO 6000, VISIBILITY TO 1 1/8 SM.



ADDITIONAL FLIGHT DATA:

CHART ARRIVAL HOLDING AT HERMN: HOLD N, LT, 198.29 INBOUND, 17000.
CHART CHS R-018 AT HERMN.
HOLD NE, RT, 234.80 INBOUND.
CHART FAS OBST: 194 ANTENNA 325449N/0800328W.
CHART VDP AT 2.39 DME
DISTANCE VDP TO THLD 1.15 NM.
CHART CHS R-018 AT MUGSE.
CHART CHS R-360 AT NUCID.
FAC CROSSES RWY C/L EXTENDED 5097 FT FROM THLD.
MYRAA TO RW15: 3.43/50.

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

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

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
S-15		NA			NA		460	4000	417	460	4000	417	460	4000	417
CIRCLING		NA			NA		540	1 1/2	494	740	2 1/4	694	740	2 1/2	694

CHANGES - REASONS

- PROCEDURE NAMED CHANGED FROM "VOR/DME OR TACAN RWY 15" TO "VOR OR TACAN RWY 15" - 8260.3D NAMING CONVENTION.
- APT ELEV CHANGED FROM 45 TO 46 - UPDATED SURVEY DATA.
- MISSED APPROACH, CHANGED "VIA" TO "ON" - CURRENT WORDING POLICY.
- MISSED APPROACH, REMOVED "INT" FROM FIX WANDO - VAN VORTAC CROSSING RADIAL PREVIOUSLY REMOVED FROM WANDO FIX MAKEUP AND IS NOT NECESSARY DUE TO THIS PROCEDURE REQUIRING DME.
- MISSED APPROACH, CHANGED ALTITUDE FROM 2000 TO 3500 AND ADDED CLIMB-IN-HOLD - DUE TO FACILITY RESTRICTION, HOLDING IS UNAVAILABLE BELOW 3500.
- EQUIPMENT REQUIREMENTS NOTES, ADDED "DME REQUIRED" - DME REQUIRED FOR ALL SEGMENTS EXCEPT MISSED APPROACH.
- REWORDED INOP ALS NOTE TO CURRENT STANDARD, INCREASED ALL CATS TO RVR 6000 - CURRENT CALCULATIONS.
- ADDITIONAL FLIGHT DATA, REMOVED "CHART HCS R-055 AT WANDO" - REDUNDANT INFORMATION AS THE RADIAL IS CONTAINED IN THE MISSED APPROACH TEXT.
- ADDITIONAL FLIGHT DATA, REMOVED "CHART: ASR" - KCHS NO LONGER HAS RADAR APPROACHES.
- ADDITIONAL FLIGHT DATA, ADDED "CHART CHS R-018 AT HERMN" - ARRIVAL HOLDING PATTERN.
- TAKEOFF MINIMUMS, CHANGED FROM "STANDARD" TO "SEE FAA FORM 8260-15A..." - 8260.19H REQUIREMENT.
- ALTERNATE MINIMUMS, CHANGED FROM "NA" TO "STANDARD - CAT D 800-2 1/4, CAT E 800-2 1/2" - PROCEDURE QUALIFIES FOR NON-STANDARD ALTERNATE MINIMUMS.
- MINIMUMS, LOWERED S-15 CAT D/E VISIBILITY FROM RVR 5000 TO RVR 4000 - RECALCULATION USING CURRENT TABLES.
- MINIMUMS, CIRCLING CAT C, CHANGED HAA FROM 495 TO 494 - APT ELEV UPDATED.
- MINIMUMS, CIRCLING CAT D, CHANGED MDA/VIS/HAA FROM 600-2-555 TO 740-2 1/4-694 - NEW CIRCLING AREA EVALUATED.
- MINUMUMS, CIRCLING CAT E, CHANGED HAA FROM 695 TO 694 - APT ELEV UPDATED.



AIRPORT ID
KCHS

PROCEDURE NAME
HI - VOR OR TACAN RWY 15

ORIGINAL/AMENDMENT
4A

CITY
CHARLESTON

STATE
SC

COORDINATED WITH:

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

FLIGHT CHECKED BY

PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJF-10) MEMO, APRIL 29, 2020, SUBJECT:
FLIGHT INSPECTION REVIEW NOT REQUIRED

OFFICE

Digitally signed by **DATE**

JASON KRETSCHMER

DEVELOPED BY

RUSSELL ROSLEWSKI

Digitally signed by

RUSSELL ROSLEWSKI

OFFICE

AJV-A421

Apr 01, 2021

DATE

10/15/2020

RECOMMENDED BY

MARLON J. ROBINSON

Digitally signed by

JASON KRETSCHMER

OFFICE

AJV-A420

DATE

TITLE
MANAGER

APPROVED BY

Apr 01, 2021

OFFICE

DATE

TITLE

QUALITY
22
CHECKED

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

<u>AIRPORT ID</u> KCHS	<u>PROCEDURE NAME</u> HI - VOR OR TACAN RWY 15	<u>AMDT NO.</u> 4A	<u>CITY</u> CHARLESTON	<u>STATE</u> SC	<u>AIRPORT ELEVATION</u> 46	<u>FACILITY</u> CHS
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PART A: OBSTRUCTION DATA SEGMENTS

INITIAL: ARC

FROM
MUGSE/24.00 DME CCW

TO
NUCID/24.00 DME

<u>RNP</u>	<u>DISTANCE</u>	<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 (41-0850)	331323.00N/0795619.00W	451	50	20	2C	1000				AT15549	17000
												2.TERRAIN	331912.00N/0795957.00W	89 (100)								AS1500	1600

COMPUTATIONS

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

SEGMENT REMARKS:

INITIAL: ARC STEPDOWN

FROM
NUCID/24.00 DME CCW

TO
CATAM/24.00 DME

<u>RNP</u>	<u>DISTANCE</u>	<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 (41-0221)	331647.00N/0801533.00W	501	250	50	4D	1000				AT1499	3000
												4.TERRAIN	331615.00N/0801351.00W	102 (100)								AS1500	1600

COMPUTATIONS

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

SEGMENT REMARKS:



INITIAL: STEPDOWN

FROM
CATAM/24.00 DME

TO
LADRE/15.00 DME

RNP	DISTANCE 9.00	PAT	MAP	HAT			HMAS					
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
5.TOWER (41-0319)	331138.00N/0801053.00W		425	500	50	5D	1000				AT1575	3000
6.TERRAIN	331233.00N/0801733.00W		105 (100)								AS1500	1600

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

SEGMENT REMARKS:

INTERMEDIATE

FROM
LADRE/15.00 DME

TO
MYRAA/4.00 DME

RNP	DISTANCE 11.00	PAT	MAP	HAT			HMAS					
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
7.TOWER (41-0610)	330214.00N/0800951.00W		468	500	50	5D	500					1000
8.TERRAIN	330751.00N/0800615.00W		92 (100)								AS1000	1100

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

SEGMENT REMARKS:



FINAL

FROM
MYRAA/4.00 DME

TO
COLOT/1.23 DME FIX

RNP	DISTANCE 2.77	PAT	MAP COLOT/1.23 DME FIX	HAT 417	HMAS							
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
9.ANTENNA (KCHS0107)	325449.48N/0800327.88W		194	50	20	2C	250					460

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

MISSED APPROACH

FROM
COLOT/1.23 DME FIX

TO
WANDO/CHS 13.00 DME

RNP	DISTANCE	PAT	MAP	HAT	HMAS 210							
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
								ASC				3500
10.TOWER (41-0539)	325423.00N/0795514.00W		649	50	20	2C	1000					1700
11.TERRAIN	325924.00N/0794809.00W		63 (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:



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 C											
CONTROL_TOWER (45-000230)	325340.81N/0800137.05W	2.84	494	233	20	3	1A	300			540
CATEGORY D											
STACK (45-000456)	325355.00N/0795759.00W	3.70	694	422	100	20	3C	300			740
CATEGORY E											
STACK (45-000456)	325355.00N/0795759.00W	4.63	694	422	100	20	3C	300			740

CIRCLING REMARKS:

MSA

CENTER

CHS VORTAC

RADIUS

25

SECTOR	OBSTRUCTION	COORDINATES	BEARING	DISTANCE	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
360-360	TOWER (41-0706)	325529.00N/0794157.00W	089	17.2	2016	500	50	5D	1000			3100

MSA REMARKS:

ESA

CENTER

CHS VORTAC

RADIUS

100

SECTOR	OBSTRUCTION	COORDINATES	BEARING	DISTANCE	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
360-360	TOWER (41-0481)	342205.00N/0791920.00W	027	95.3	2115	500	50	5D	1000			3200

ESA REMARKS:

NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS:



PART B: SUPPLEMENTAL DATA

COMMUNICATIONS WITH
ZJX ARTCC, CHS APP CON

<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 SOURCE NOT REQUIRED DUE TO REDUNDANT LOCAL SOURCES.

<u>PRIMARY NAVAID</u> CHS VORTAC	<u>MONITOR POINT</u> AOCC	<u>HRS OPERATION</u> 24	<u>CAT</u> 1
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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>	<u>ELEV RWY THRESHOLD</u>	<u>TCH</u>	<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 type="checkbox"/>	5097	FT FROM THRESHOLD	DISPLACED THRESHOLD DISTANCE
ON CENTERLINE	<input checked="" type="checkbox"/>		FT FROM CENTERLINE	

CRITICAL TEMPERATURES

<u>CRITICAL LOW</u>	<u>CRITICAL HIGH</u>	<u>ACT</u>	<u>APT ISA</u>
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CRITICAL TEMPERATURE REMARKS:

"VISUAL PORTION OF FINAL" PENETRATIONS

HELICOPTER 'VISUAL PORTION OF FINAL' PENETRATIONS



and/or
5280-FT "PROCEED VFR" SEGMENT LEVEL SURFACE AREA PENETRATIONS

<u>PENETRATIONS REMARKS:</u>

PART C: GENERAL REMARKS:
PRECIPITOUS TERRAIN EVALUATION COMPLETED.
100 FT VEGETATION HEIGHT USED.
ORDER 8260.3, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED.



<u>AIRPORT ID</u> KCHS	<u>PROCEDURE NAME</u> HI - VOR OR TACAN RWY 15	<u>AMDT NO.</u> 4A	<u>CITY</u> CHARLESTON	<u>STATE</u> SC	<u>AIRPORT ELEVATION</u> 46	<u>FACILITY</u> CHS
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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	2.60
WIDTH OF	FINAL	SEGMENT AT 1000FT POINT	2.38
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1000FT POINT	152.00
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1000FT POINT	0
DISTANCE FROM	FAF	TO 1500FT POINT	8.00
WIDTH OF	INTERMEDIATE	SEGMENT AT 1500FT POINT	6.47
TRUE COURSE OF	INTERMEDIATE	SEGMENT CONTAINING 1500FT POINT	152.00
HIGH TERRAIN IN	INTERMEDIATE	SEGMENT CONTAINING 1500FT POINT	100

THRESHOLD
COORDINATES
(IF STR-IN)

325446.88N/0800253.23W

ARP COORDINATES

325355.10N/0800225.90W

RUNWAY APCH END
AND DIST FURTHEST
FROM ARP

RUNWAY 15 DISTANCE 0.94 NM

FAF
COORDINATES

325711.83N/0800430.02W

FIX NAME
COORDINATES

IF LADRE: 330655.47N/0801039.19W

REMARKS

NO ADDITIONAL AIRSPACE REQUIRED

QUALITY
22
CHECKED

FAA Form 8260-9 / (11/16) Supersedes Previous Edition

Electronic Version

Page 7 of 8

PART E: PREPARED BY

<u>NAME</u> RUSSELL ROSLEWSKI	<u>OFFICE</u> AJV-A421	<u>DATE</u> 10/15/2020	<u>TITLE</u> AERONAUTICAL INFORMATION SPECIALIST
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