

**UNITED STATES AIR FORCE  
FLIGHT STANDARDS SERVICE  
VOR 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>	<u>PROCEDURE NAME</u>	<u>ORIGINAL/AMENDMENT</u>	<u>CITY</u>	<u>STATE</u>
CHS	HI - VOR Z OR TACAN Z RWY 15	4B	CHARLESTON	SC
<u>AIRPORT ELEVATION</u>	<u>TDZE</u>	<u>SUPERSEDED</u>	<u>DATED</u>	<u>EPOCH YEAR</u>
46	43	HI - VOR OR TACAN RWY 15	06/15/2023	1985
<u>FACILITY</u>	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u>	<u>REQUIRED EFFECTIVE DATE</u>	<u>CANCEL/SUSPEND</u>
CHS			ROUTINE	

**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 (CHS R-337)	9.00	3000
LADRE/15.00 DME	IF	MYRAA/4.00 DME					157.00 (CHS R-337)	11.00	1100

**MISSED APPROACH**

**MAP:**

COLOT/1.23 DME

**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					

QUALITY  
10  
CHECKED

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

1. PROCEDURE NAME CHANGED FROM "HI- VOR OR TACAN RWY 15" TO "HI - VOR Z OR TACAN Z RWY 15" - IAW 8260.3E.  
2. MAP: CHANGED "COLOT/1.23 DME FIX" TO "COLOT/1.23 DME" - "FIX" NOT REQUIRED IAW 8260.19J.



COORDINATED WITH:

A4A

X

ALPA

X

AOPA

X

APA

X

HAI

NBAA

X

OTHER:

ZJX, CHS APP CON/ATCT, AMGR

FLIGHT CHECKED BY

PROCESSED IAW TECHNICAL SUPPORT GROUP (AJF-17) MEMO DATED 07/07/2021 GUIDANCE

FOR PROCEDURAL CHANGES REQUIRING FLIGHT INSPECTION/VALIDATION

Digitally signed by

OFFICE

DATE

RAKE MCGRAW

Jul 01, 2024

DEVELOPED BY

BRITNEY ARMENTROUT

Digitally signed by

BRITNEY ARMENTROUT

Jun 20, 2024

OFFICE

DATE

AJV-A422

06/20/2024

RECOMMENDED BY

RAKE MCGRAW

Digitally signed by

RAKE MCGRAW

Jul 01, 2024

OFFICE

DATE

TITLE

AJV-A422

MANAGER

APPROVED BY

OFFICE

DATE

TITLE



**UNITED STATES AIR FORCE  
FLIGHT STANDARDS SERVICE  
STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD**

<u>AIRPORT ID</u> CHS	<u>PROCEDURE NAME</u> HI - VOR Z OR TACAN Z RWY 15	<u>AMDT NO.</u> 4B	<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**

<b>FROM</b> MUGSE/R-018/24.00 DME CCW	<b>TO</b> NUCID/24.00 DME
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<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>	<u>HMAS</u>
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<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>
TOWER (41-0850)	331323.00N/0795619.00W	451	50	20	2C	1000				AT15549	17000
TERRAIN	331912.00N/0795957.00W	89 (100)								AS1500	1600

**COMPUTATIONS**

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

**INITIAL: ARC STEPDOWN**

<b>FROM</b> NUCID/R-360/24.00 DME CCW	<b>TO</b> CATAM/24.00 DME
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<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>	<u>HMAS</u>
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<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>
TOWER	331647.00N/0801533.00W	501	250	50	4D	1000				AT1499	3000
TERRAIN	331615.00N/0801351.00W	102 (100)								AS1500	1600

**COMPUTATIONS**

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

QUALITY  
10  
CHECKED

INITIAL: STEPDOWN

FROM

CATAM/24.00 DME

TO

LADRE/15.00 DME

<u>RNP</u>	<u>DISTANCE</u> 9.00	<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>
TOWER (41-0319)	331138.00N/0801053.00W	425	500	50	5D	1000				AT1575	3000
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

<u>RNP</u>	<u>DISTANCE</u> 11.00	<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>
TOWER (41-0610)	330214.00N/0800951.00W	468	500	50	5D	500					1000
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

RNP

DISTANCE

PAT

MAP

HAT

HMAS

2.77

COLOT/1.23 DME

417

OBSTRUCTION	COORDINATES	ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
ANTENNA	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

SEGMENT REMARKS:

MISSED APPROACH

FROM

COLOT/1.23 DME

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
TOWER (45-000539)	325422.79N/0795513.82W	649	20	10	1B	1000					1700
TERRAIN	325515.00N/0800215.00W	59 (100)								AS1500	1600

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



AIRPORT ID

CHS

PROCEDURE NAME

HI - VOR Z OR TACAN Z RWY 15

AMDT NO.

4B

CITY

CHARLESTON

STATE

SC

AIRPORT ELEVATION

46

FACILITY

CHS

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:

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:

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:

NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS:



PART B: SUPPLEMENTAL DATA

COMMUNICATIONS WITH

ZJX ARTCC, CHS APP CON

<u>WX SERVICE</u>	<u>LOCATION</u>	<u>HRS OPERATION</u>	<u>ALTIMETER SOURCE</u>	<u>DISTANCE</u>	<u>SERVICE-A</u>	<u>ADJUSTMENTS</u>
ASOS	CHS	24	CHS	0	Y	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>	<u>MONITOR POINT</u>	<u>HRS OPERATION</u>	<u>CAT</u>
CHS VORTAC	AOCC	24	1

<u>APPROACH AND RUNWAY LIGHTING SYSTEM</u>	<u>RUNWAY MARKINGS</u>	<u>RUNWAY VISUAL RANGE</u>
RW03 - REIL, HIRL, PAPI-4L	PIR-G	
RW15 - ALSF-2, C/LINE, TDZ, HIRL, 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>	<u>TCH</u>
					3.00	50.0

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>





NAME  
AERONAUTICAL INFORMATION SPECIALIST

