

**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.

AIRPORT ID CHS	PROCEDURE NAME HI - VOR Z OR TACAN Z RWY 15	ORIGINAL/AMENDMENT 4B	CITY CHARLESTON	STATE SC
AIRPORT ELEVATION 46	TDZE 43	SUPERSEDED HI - VOR OR TACAN RWY 15	DATED 06/15/2023	EPOCH YEAR 1985
FACILITY CHS	COORDINATES OF FACILITIES	ACTUAL EFFECTIVE DATE	REQUIRED EFFECTIVE DATE ROUTINE	MAG VAR 5W
				CANCEL/SUSPEND

TERMINAL ROUTES

FROM	FIX TYPE	TO	FIX TYPE	LEG TYPE	FO/FB	RNP	COURSE	DISTANCE	ALTITUDE
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. **FAF:** 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

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.



AIRPORT ID
CHS

PROCEDURE NAME
HI - VOR Z OR TACAN Z RWY 15

ORIGINAL/AMENDMENT
4B

CITY
CHARLESTON

STATE
SC

COORDINATED WITH:

A4A **ALPA** **AOPA** **APA** **HAI** **NBAA**

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
RAKE MCGRAW
Jul 01, 2024

DATE

DEVELOPED BY

BRITNEY ARMENTROUT

Digitally signed by
BRITNEY ARMENTROUT
Jun 20, 2024

OFFICE
AJV-A422

DATE
06/20/2024

RECOMMENDED BY

RAKE MCGRAW

RAKE MCGRAW
Jul 01, 2024

OFFICE
AJV-A422

DATE

TITLE
MANAGER

APPROVED BY

OFFICE

DATE

TITLE



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

<u>AIRPORT ID</u>	<u>PROCEDURE NAME</u>	<u>AMDT NO.</u>	<u>CITY</u>	<u>STATE</u>	<u>AIRPORT ELEVATION</u>	<u>FACILITY</u>
CHS	HI - VOR Z OR TACAN Z RWY 15	4B	CHARLESTON	SC	46	CHS

PART A: OBSTRUCTION DATA SEGMENTS

INITIAL: ARC

FROM
MUGSE/R-018/24.00 DME CCW

TO
NUCID/24.00 DME

RNP DISTANCE PAT MAP HAT HMAS

<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

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

SEGMENT REMARKS:

INITIAL: ARC STEPDOWN

FROM
NUCID/R-360/24.00 DME CCW

TO
CATAM/24.00 DME

RNP DISTANCE PAT MAP HAT HMAS

<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

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

INITIAL: STEPDOWN

FROM
CATAM/24.00 DME

TO
LADRE/15.00 DME

RNP **DISTANCE** **PAT** **MAP** **HAT** **HMAS**
9.00

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

RNP **DISTANCE** **PAT** **MAP** **HAT** **HMAS**
11.00

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



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

FINAL

FROM
MYRAA/4.00 DME

TO
COLOT/1.23 DME

RNP

DISTANCE
2.77

PAT

MAP
COLOT/1.23 DME

HAT
417

HMAS

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

<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>RADIUS</u>	<u>HAA</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
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 RADIUS
CHS VORTAC 100

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

ESA REMARKS:

MSA

CENTER RADIUS
CHS VORTAC 25

<u>SECTOR</u>	<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>BEARING</u>	<u>DISTANCE</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
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:



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

PART B: SUPPLEMENTAL DATA

COMMUNICATIONS WITH

ZJX ARTCC, CHS APP CON

WX SERVICE
ASOS

LOCATION
CHS

HRS OPERATION
24

ALTIMETER SOURCE
CHS

DISTANCE
0

SERVICE-A
Y

ADJUSTMENTS
0

BACK-UP WX SERVICE

LOCATION

HRS OPERATION

ALTIMETER SOURCE

DISTANCE

SERVICE-A

ADJUSTMENTS

WX REMARKS:

BACKUP ALTIMETER SOURCE NOT REQUIRED DUE TO REDUNDANT LOCAL SOURCES.

PRIMARY NAVAID
CHS VORTAC

MONITOR POINT
AOCC

HRS OPERATION
24

CAT
1

APPROACH AND RUNWAY LIGHTING SYSTEM	RUNWAY MARKINGS	RUNWAY VISUAL RANGE
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

GLIDESLOPE ANGLE

ELEV RWY THRESHOLD

TCH

ELEV GS ANTENNA

DISTANCE FROM RWY

VGSI ANGLE
3.00

TCH
50.0

FINAL APPROACH COURSE AIMING

RUNWAY THRESHOLD

5097 FT FROM THRESHOLD

DISPLACED THRESHOLD DISTANCE

ON CENTERLINE

FT FROM CENTERLINE

CRITICAL TEMPERATURES

CRITICAL LOW

CRITICAL HIGH

ACT

APT ISA

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



PENETRATIONS REMARKS:

PART C: GENERAL REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETE.

100 FT VEGETATION HEIGHT USED.
ORDER 8260.3, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED.

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

PART E: PREPARED BY

NAME	OFFICE	DATE	TITLE
BRITNEY ARMENTROUT	AJV-A422	06/20/2024	AERONAUTICAL INFORMATION SPECIALIST

