



NATIONAL TRANSPORTATION SAFETY BOARD

**Office of Aviation Safety
Washington, D.C. 20594**

December 30, 2017

Attachment 8: CRW Airport Charts

OPERATIONAL FACTORS

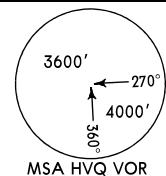
DCA17FA109

1. Airport Qualification: Mountainous Terrain
2. Primary Class C Airport

Apt Elev 947'

3 NM East Charleston

N38 22.6 W081 35.6



RUNWAY 5

Caution: There are extreme drop offs at both ends of this runway.

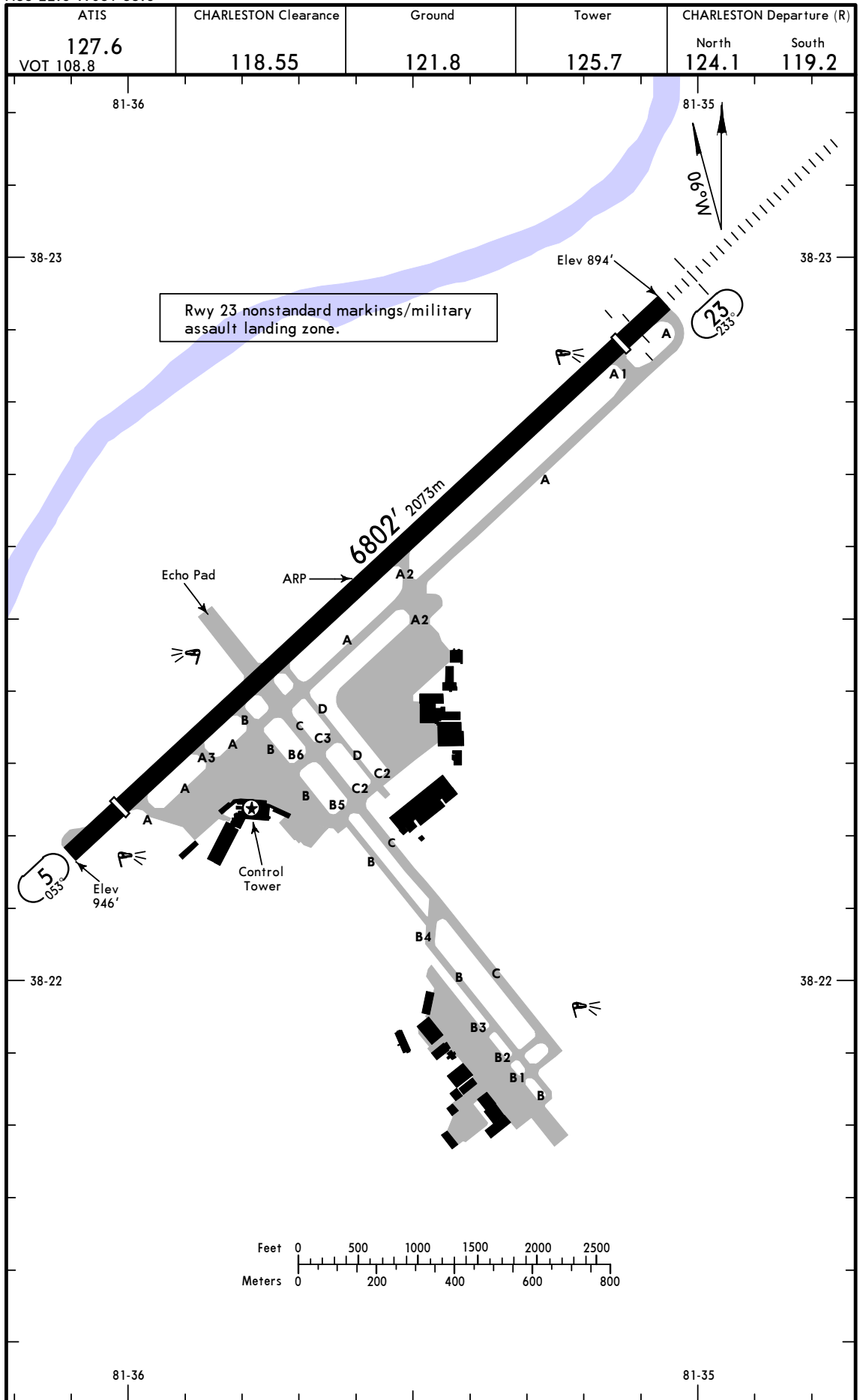
Visual vertical guidance is provided by VASI (3.0°) on the left side of the runway. The VASI is unusable when 2° or more right of course and is not coincident with the ILS glideslope.

Rapidly rising terrain may activate GPWS on short final to this runway.

There is a hill, with several lighted antennas located right of centerline, within 1 NM of the threshold. The highest antenna rises to 1297 feet MSL.

This runway has a displaced threshold resulting in a usable landing length of 5724 feet (1745m). The last 501 feet (153m) is not available for landing distance computations.

The lowest takeoff minimums for this runway require a minimum climb gradient of 240 feet/NM up to 1400 feet MSL.



GENERAL
Deer and birds on and in vicinity of airport.
Low level wind shear alert system.

ADDITIONAL RUNWAY INFORMATION							
RWY					USABLE LENGTHS		WIDTH
					Threshold	Glide Slope	
5	HIRL CL REIL ①②	VASI-L	grooved	RVR	③ 5724' 1745m		150' 46m
23	HIRL CL ALSF-I	VASI-R	grooved	RVR	④ 5802' 1768m	4936' 1504m	

- ① Not coincident with ILS glideslope.
- ② Unusable 2° right of course.
- ③ Last 501' (153 m) is unavailable for landing distance computations.
- ④ Last 500' (152 m) is unavailable for landing distance computations.

TAKE-OFF & OBSTACLE DEPARTURE PROCEDURE

Rwy 23				
Both RVRs are required and controlling.		Adequate Vis Ref	STD	
CL & HIRL	CL, or RCLM & HIRL		3 & 4 Eng	1 & 2 Eng
TDZ RVR 5	TDZ RVR 10	RVR 16 or 1/4	RVR 24 or 1/2	RVR 50 or 1
Rollout RVR 5	Rollout RVR 10			

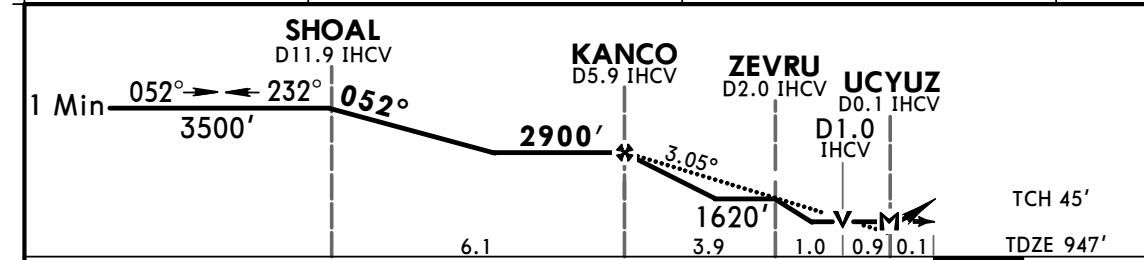
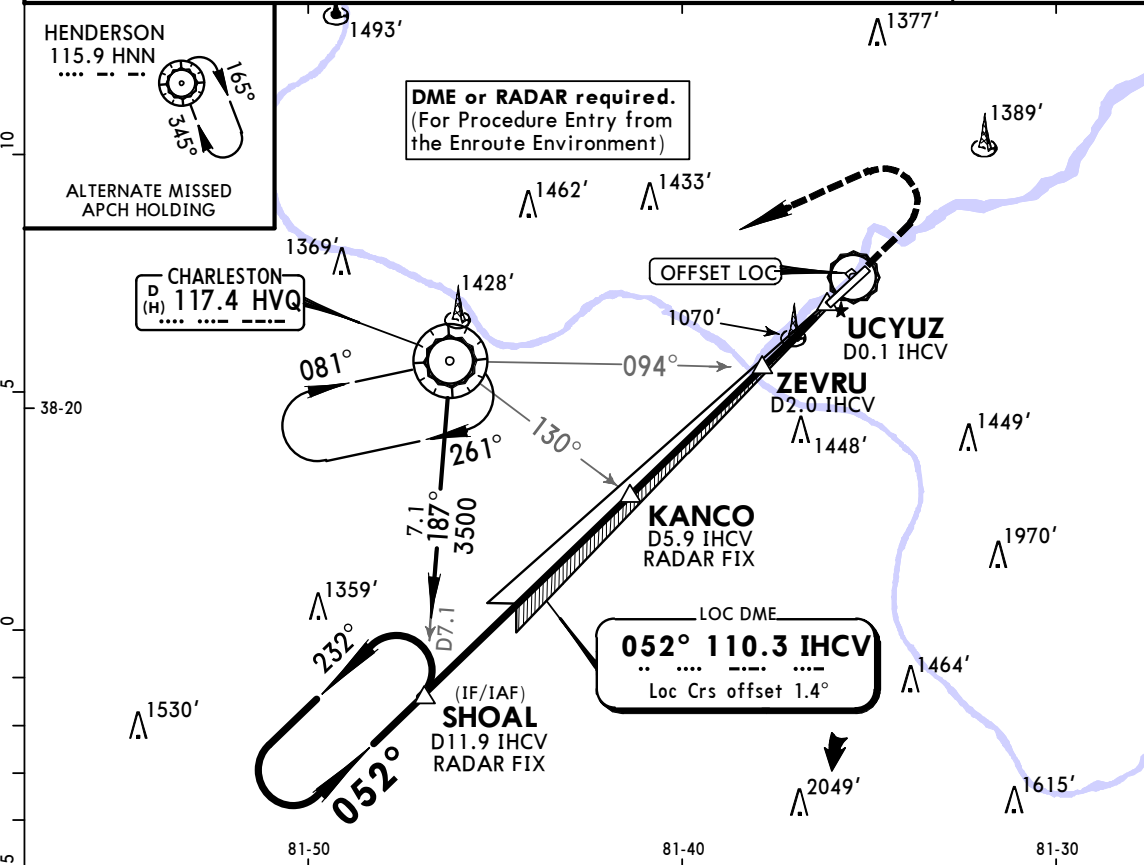
Rwy 5					
With Min climb of 240'/NM to 1400'					Other
Both RVRs are required and controlling.		Adequate Vis Ref	STD		
CL & HIRL	CL, or RCLM & HIRL		3 & 4 Eng	1 & 2 Eng	
TDZ RVR 5	TDZ RVR 10	RVR 16 or 1/4	RVR 24 or 1/2	RVR 50 or 1	400-2 1/4
Rollout RVR 5	Rollout RVR 10				

OBSTACLE DP
Rwy 23 - Climb heading 233° to 1400' before turning left.

TAKE-OFF OBSTACLE NOTES: Note: Rwy 5: trees beginning 3781' from DER, 736' left of centerline, up to 150' AGL/1217' MSL. Tree 5848' from DER, 1055' right of centerline, 104' AGL/1062' MSL. Tower 1.9 NM from DER, 2764' left of centerline, 184' AGL/1235' MSL.

FOR FILING AS ALTERNATE						
	ILS Rwy 23	RNAV (GPS) Y Rwy 23 RNAV (RNP) Z Rwy 23	LOC Rwy 23 VOR-A	RNAV (GPS) Y Rwy 5	RNAV (RNP) Z Rwy 5	LOC Rwy 5
A	700-2	800-2	800-2	800-2	800-2 1/2	800-2
B				800-2 1/4		900-2 1/2
C				800-2 1/4		900-2 3/4
D				1000-3		900-2 3/4

ATIS 127.6		CHARLESTON Approach (R) 124.1		CHARLESTON Tower 125.7		Ground 121.8
LOC IHCV 110.3	Final Apch Crs 052°	Minimum Alt KANCO 2900' (1953')	MDA(H) (CONDITIONAL) 1320' (373')	Apt Elev 947' TDZE 947'		
MISSED APCH: Climb to 1800' then climbing LEFT turn to 3500' direct HVQ VOR and hold, or as directed by ATC.						
Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'		MSA HVQ VOR



Gnd speed-Kts	70	90	100	120	140	160	REIL VASI-L	1800'	3500'	HVQ 117.4
Descent Angle 3.05°	378	486	540	648	755	863		↑	←	
MAP at UCYUZ or KANCO to MAP	5.8	4:58	3:52	3:29	2:54	2:29	2:10			

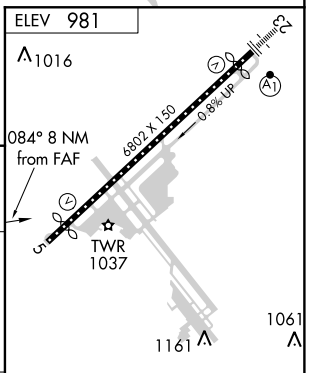
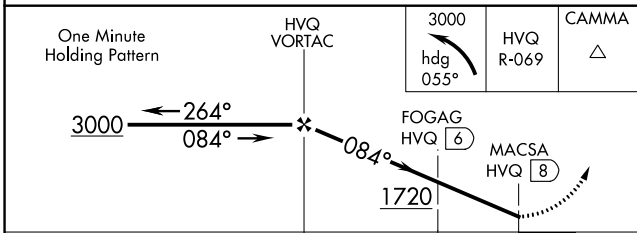
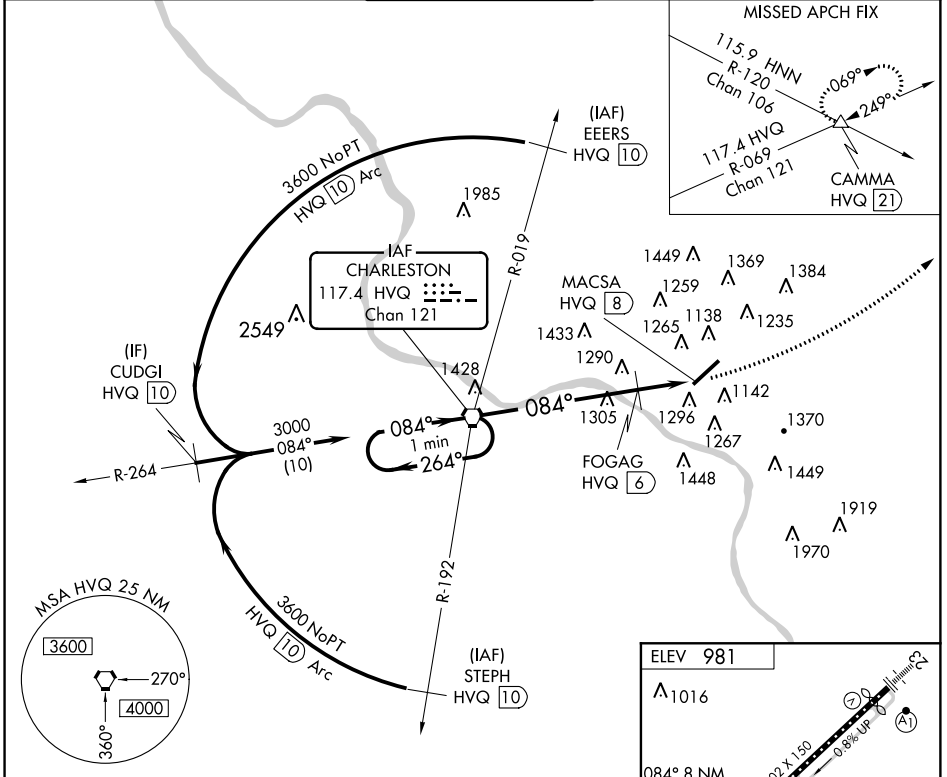
TERPS		STRAIGHT-IN LANDING RWY 5		CIRCLE-TO-LAND	
		With ZEVRU	Without ZEVRU	With ZEVRU	Without ZEVRU
		MDA(H) 1320' (373')	MDA(H) 1620' (673')	Max Kts	MDA(H)
A	RVR 55 or 1	RVR 55 or 1	1 7/8	90	1600'(653')-1
B				120	1620'(673')-1
C				140	1760'(813')-2 1/2
D				165	1760'(813')-2 3/4

VORTAC HVQ 117.4 Chan 121	APP CRS 084°	Rwy Idg TDZE Apt Elev	N/A N/A 981
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VOR-A
YEAGER (CRW)

MISSED APPROACH: Climbing left turn to 3000 via heading 055° and HVQ R-069 to CAMMA INT/21 DME and hold.

ATIS 127.6	CHARLESTON APP CON 124.1 269.125	CHARLESTON TOWER 125.7 257.8	GND CON 121.8 348.6	CLNC DEL 118.55
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CATEGORY	A	B	C	D
CIRCLING	1720-1 739 (800-1)		1720-2 739 (800-2)	1720-2 1/4 739 (800-2 1/4)
FOGAG FIX MINIMUMS				
CIRCLING	1600-1 619 (700-1)		1600-1 3/4 619 (700-1 3/4)	1620-2 639 (700-2)

FAF to MAP 8 NM					
Knots	60	90	120	150	180
Min:Sec	8:00	5:20	4:00	3:12	2:40

NE-4, 27 APR 2017 to 25 MAY 2017

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