



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Washington, D.C. 20594

October 27, 2016

Attachment 7 – RAP Approach Charts

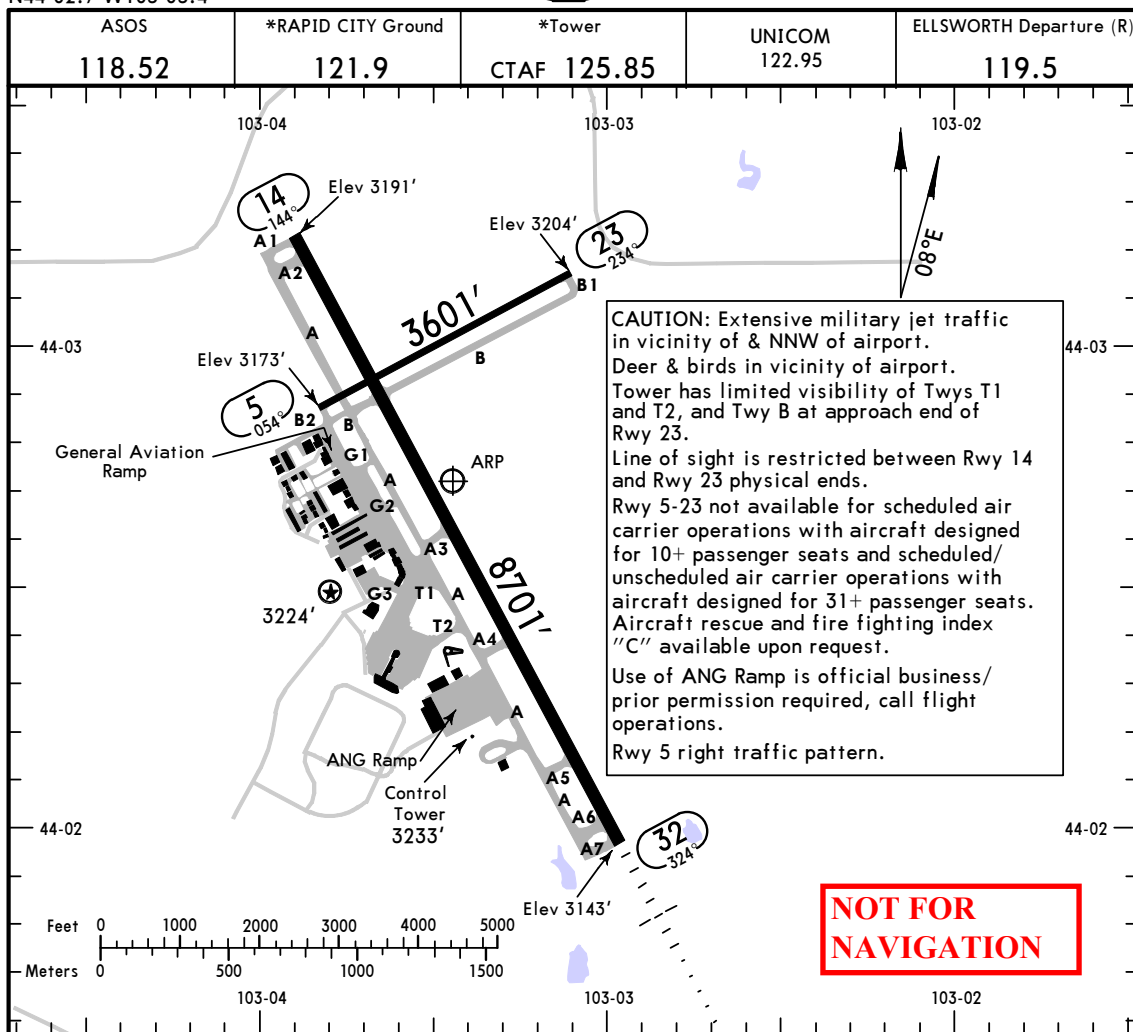
OPERATIONAL FACTORS

DCA16IA200

KRAP/RAP
Apt Elev 3204'
N44 02.7 W103 03.4

JEPPESSEN
2 JAN 15 11-1 Eff 8 Jan

RAPID CITY, S DAK
RAPID CITY REGL



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS			
		LANDING BEYOND Threshold	Glide Slope	TAKE-OFF	WIDTH
5	① MIRL ① PAPI-L (angle 3.0°)				75'
14	① HIRL ① REIL ① PAPI-L (angle 3.0°) grooved				150'
32	① HIRL ① MALSR ① PAPI-L (angle 3.0°) grooved RVR		7825'		

① Activate on 125.85 when Twr inop.

TAKE-OFF & OBSTACLE DEPARTURE PROCEDURE			FOR FILING AS ALTERNATE Authorized Only When Local Weather Available			
All Rwys						
Adequate Vis Ref		STD	ILS Rwy 32	RNAV (GPS) Rwy 14 RNAV (GPS) Rwy 32 VOR Rwy 14 VOR Rwy 32	LOC Rwy 32	RNAV (GPS) Rwy 5 RNAV (GPS) Rwy 23
1 & 2 Eng	RVR 16 or 1/4	RVR 50 or 1	A 600-2	800-2	800-2	800-2
3 & 4 Eng		RVR 24 or 1/2	B 700-2			NA
			C 800-2 1/4		800-2 1/4	

OBSTACLE DP: Rwy 5, climb on heading between 255° clockwise to 210° from departure end of runway, or minimum climb of 240'/NM to 8800' for all other courses. Rwy 14, climb on heading between 325° clockwise to 210° from departure end of runway, or minimum climb of 245'/NM to 8900' for all other courses. Rwy 23, climb on heading between

210° counterclockwise to 055° from departure end of runway, or minimum climb of 245'/NM to 8900' for all other courses. Rwy 32, climb heading 324° to 3700' for courses between 255° clockwise to 140° from departure end of runway, or minimum climb of 244'/NM to 8800' for all other courses.

A
M
E
N
D
7

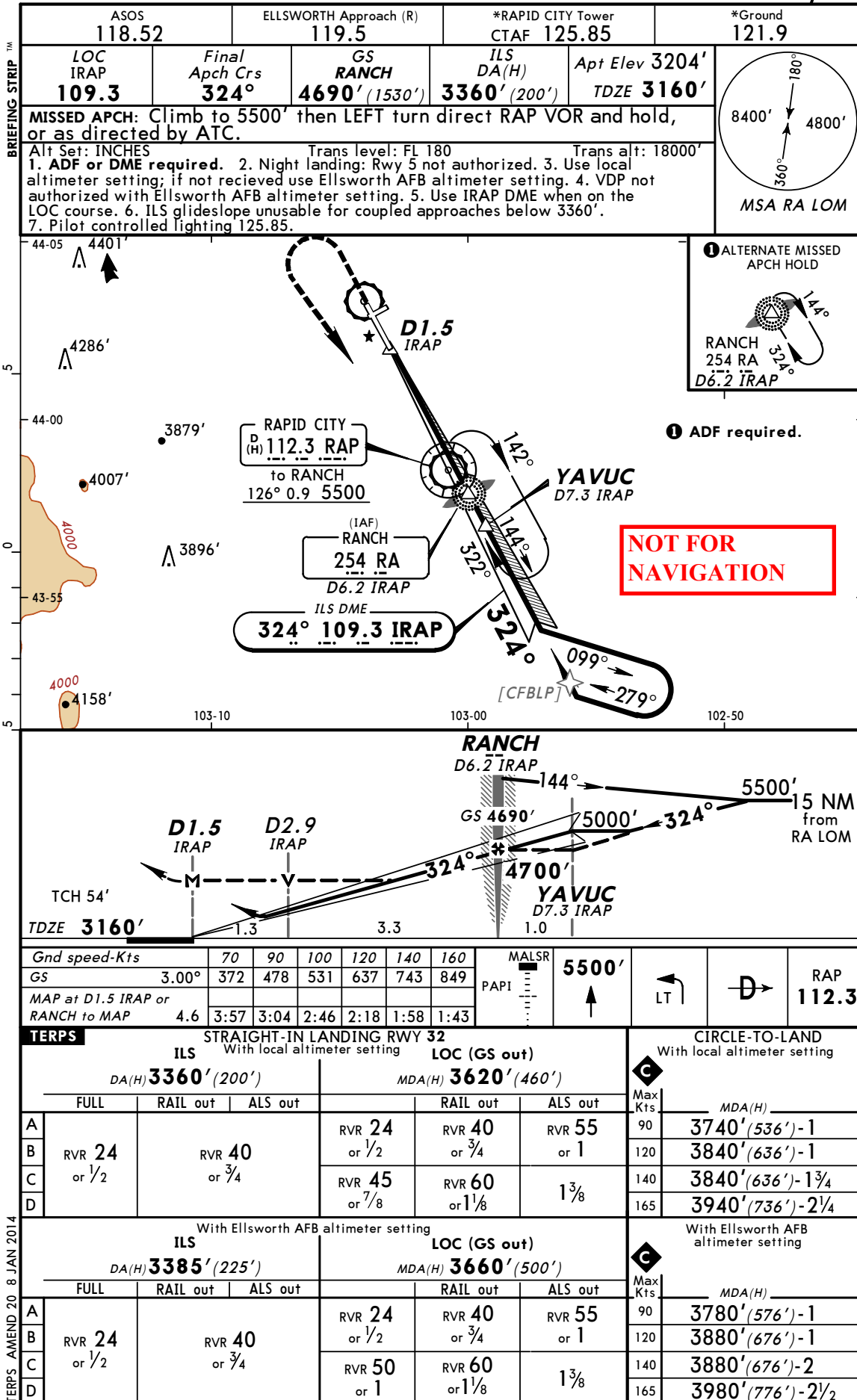
CHANGES: Alternate minimums.

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KRAP/RAP **RAPID CITY REGL**

JEPPESEN
 2 JAN 15 **(11-1)** **Eff 8 Jan**

RAPID CITY, S DAK
ILS or LOC Rwy 32



CHANGES: Procedure.

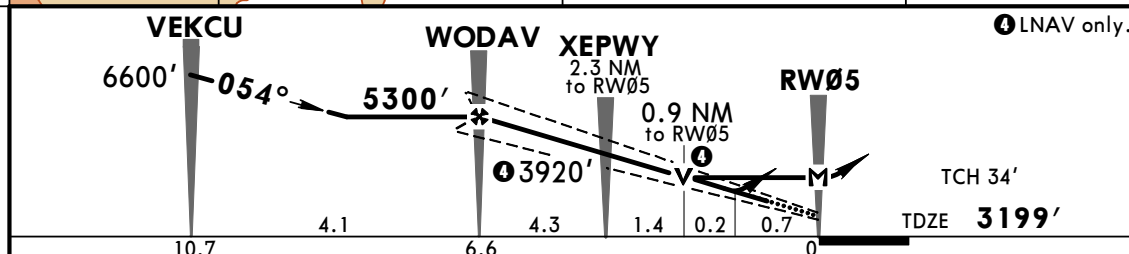
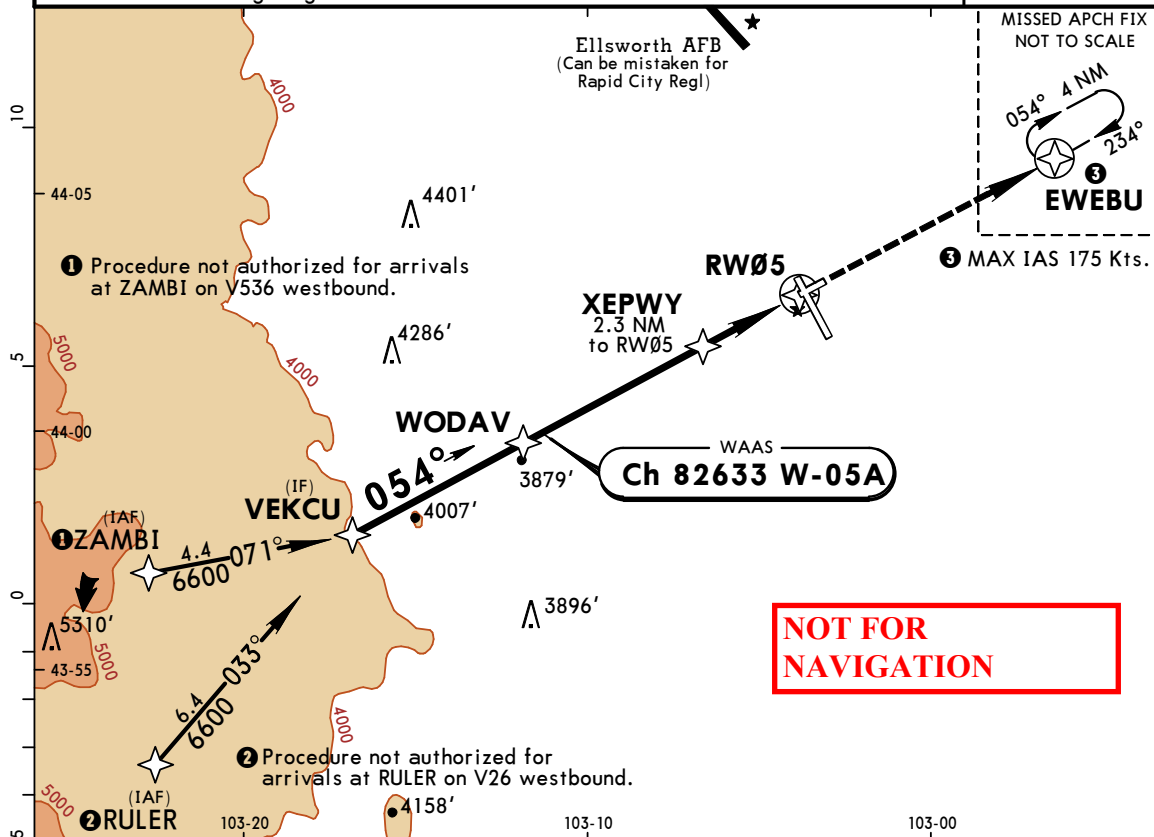
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KRAP/RAP RAPID CITY REGL

JEPPESSEN
24 APR 15
Eff 30 Apr (12-1) CAT A & B

RAPID CITY, S DAK
RNAV (GPS) Rwy 5

ASOS 118.52		ELLSWORTH Approach (R) 119.5		*RAPID CITY Tower CTAF 125.85		*Ground 121.9			
WAAS Ch 82633 W-05A		Final Apch Crs 054°		Minimum Alt WODAV 5300' (2101')		LPV DA(H) (CONDITIONAL) 3449' (250')		Apt Elev 3204' TDZE 3199'	
MISSED APCH: Climb to 5300' direct EWEBU and hold.								8500' MSA RW05	
Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'					
1. Use local altimeter setting; if not received, use Ellsworth AFB altimeter setting.									
2. VDP and Baro-VNAV not authorized when using Ellsworth AFB altimeter setting.									
3. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -21°C (-5°F) or above 54°C (130°F). 4. DME/DME RNP-0.30 not authorized.									
5. Pilot controlled lighting 125.85.									



Gnd speed-Kts	70	90	100	120	140	160			
Glide Path Angle	3.00°	372	478	531	637	743	849		
LPV, LNAV/VNAV: MAP at DA									
LNAV: MAP at RW05									

TERPS				CIRCLE-TO-LAND	
STRAIGHT-IN LANDING RWY 5					
① LPV	① LNAV/VNAV	② LNAV	③ LNAV	With Local Altimeter Setting	With Ellsworth AFB Altimeter Setting
DA(H)	DA(H)	MDA(H)	MDA(H)	MDA(H)	MDA(H)
3449' (250')	3449' (250')	3500' (301')	3500' (301')	3660' (456') - 1	3700' (496') - 1
A	1	1	1	90	3840' (636') - 1
B	1	1	1	120	3880' (676') - 1
C	NA	NA	NA	C	NA
D	NA	NA	NA	D	NA

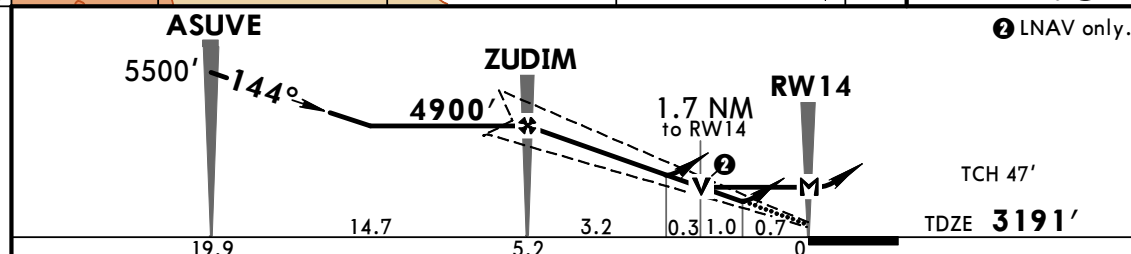
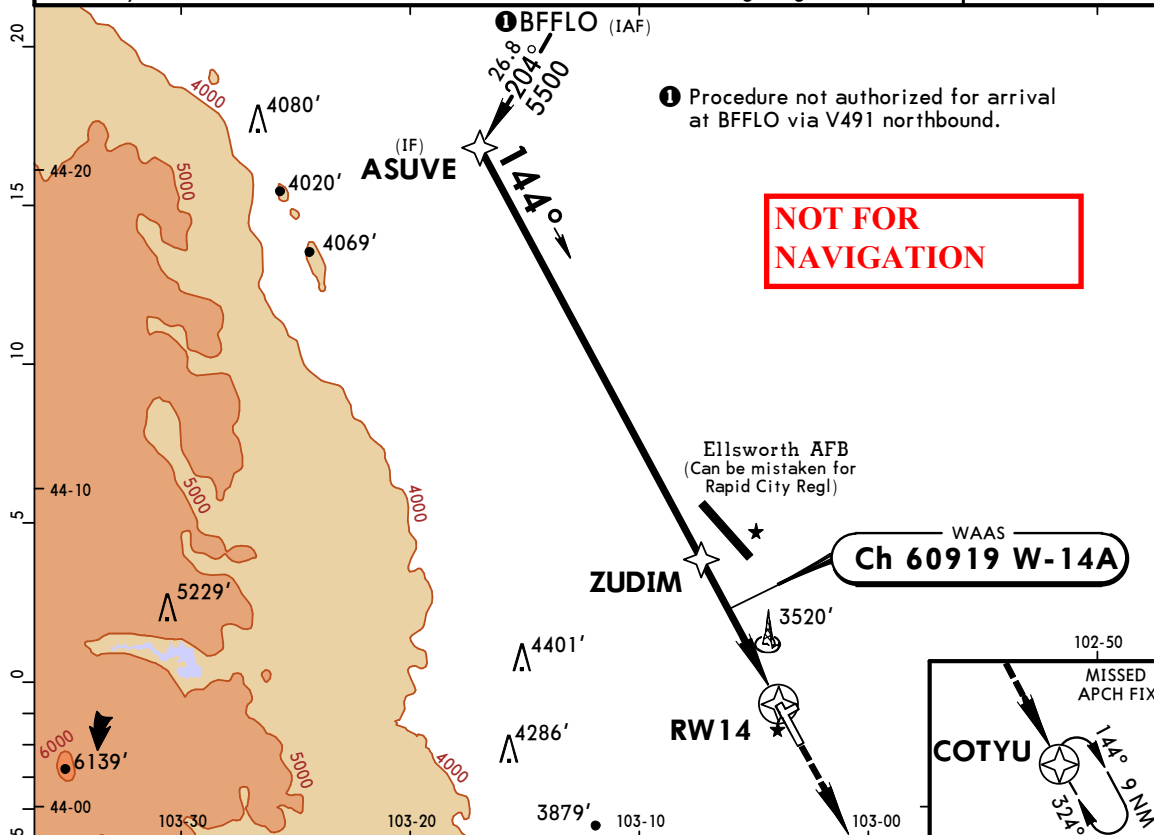
① DA(H) 3474' (275') with Ellsworth AFB altimeter setting.
 ② MDA(H) 3540' (341') with Ellsworth AFB altimeter setting.

KRAP/RAP RAPID CITY REGL

JEPPesen
24 APR 15 (12-2)

RAPID CITY, S DAK
RNAV (GPS) Rwy 14

ASOS 118.52	ELLSWORTH Approach (R) 119.5	*RAPID CITY Tower CTAF 125.85	*Ground 121.9
WAAS Ch 60919 W-14A	Final Aptch Crs 144°	Minimum Alt ZUDIM 4900' (1709')	LPV DA(H) (CONDITIONAL) 3450' (259')
Apt Elev 3204' TDZE 3191'			8500'
MISSED APCH: Climb to 5500' direct COTYU and hold.			
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'			
1. Use local altimeter setting; if not received, use Ellsworth AFB altimeter setting. 2. VDP and Baro-VNAV not authorized when using Ellsworth AFB altimeter setting. 3. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -14°C (7°F) or above 53°C (128°F). 4. DME/DME RNP-0.30 not authorized. 5. Helicopter visibility reduction below 1 SM not authorized. 6. Pilot controlled lighting 125.85.			
			MSA RW14



Gnd speed-Kts	70	90	100	120	140	160			
Glide Path Angle	3.00°	372	478	531	637	743	849		
LPV, LNAV/VNAV: MAP at DA									
LNAV: MAP at RW14									

TERPS			STRAIGHT-IN LANDING RWY 14			CIRCLE-TO-LAND		
1 LPV	2 LNAV/VNAV	3 LNAV	1 LPV	2 LNAV/VNAV	3 LNAV	4 CIRCLE-TO-LAND	5 CIRCLE-TO-LAND	6 CIRCLE-TO-LAND
DA(H) 3450' (259')	DA(H) 3871' (680')	MDA(H) 3780' (589')	DA(H) 3450' (259')	DA(H) 3871' (680')	MDA(H) 3780' (589')	Max Kts	With Local Altimeter Setting MDA(H)	With Ellsworth AFB Altimeter Setting MDA(H)
A			A			90	3780' (576') - 1	3820' (616') - 1
B			B			120	3840' (636') - 1	3880' (676') - 1
C	1	2½	C			140	3840' (636') - 1¾	3880' (676') - 2
D			D			165	3840' (636') - 2	3880' (676') - 2¼

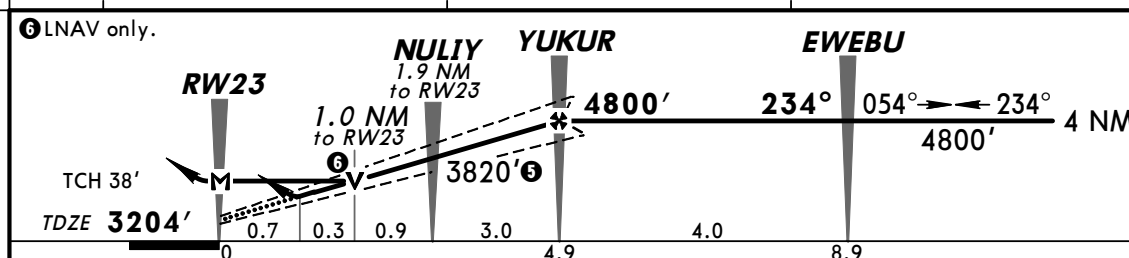
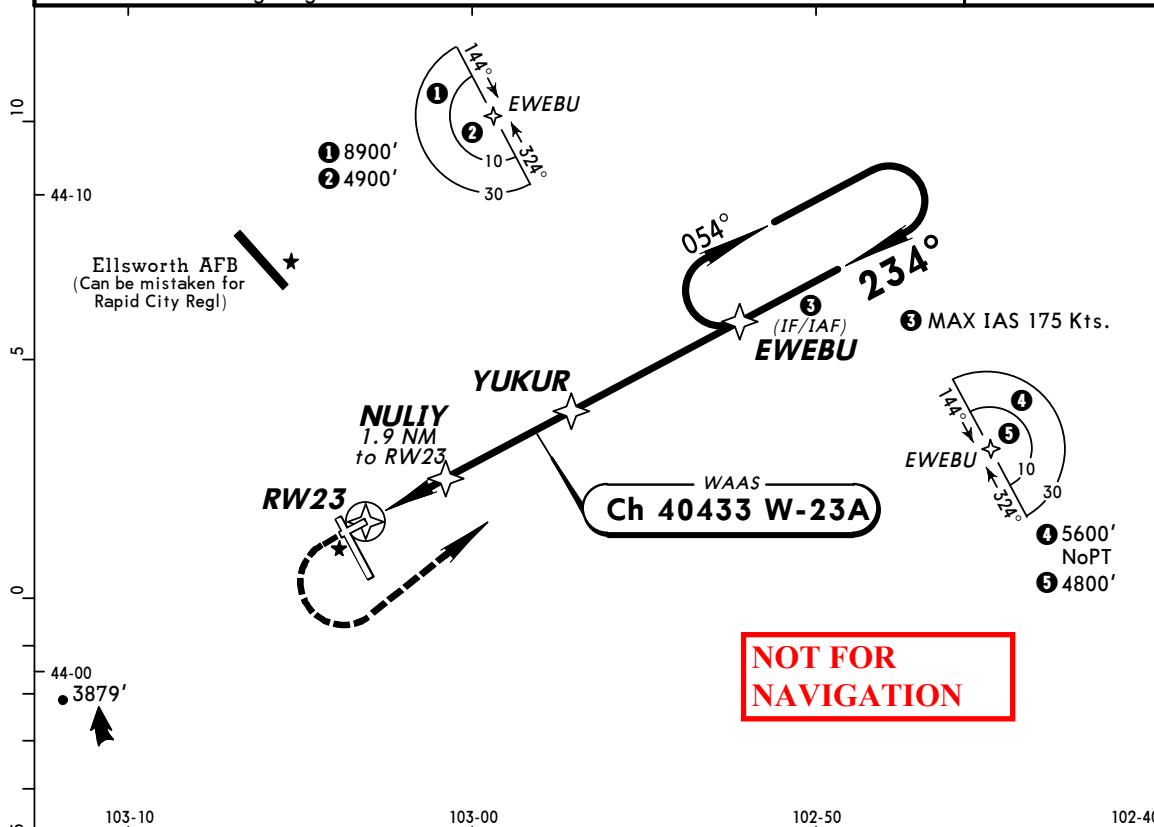
- 1 DA(H) 3476' (285') with Ellsworth AFB altimeter setting. 2 DA(H) 3897' (706') with Ellsworth AFB altimeter setting. 3 MDA(H) 3820' (629') CAT C,D: Vis 2 with Ellsworth AFB altimeter setting. 4 Not Authorized to Rwy 5-23 at Night.

KRAP/RAP RAPID CITY REGL

30 JAN 15 **(12-3)** **CAT A & B**

RAPID CITY, S DAK
RNAV (GPS) Rwy 23

ASOS 118.52		ELLSWORTH Approach (R) 119.5		*RAPID CITY Tower CTAF 125.85		*Ground 121.9			
WAAS Ch 40433 W-23A		Final Apch Crs 234°		Minimum Alt YUKUR 4800' (1596')		LPV DA(H) (CONDITIONAL) 3454' (250')		Apt Elev 3204' TDZE 3204'	
MISSED APCH: Climbing LEFT turn to 5300' direct EWEBU and hold.								TAA 30 NM IAF	
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'									
1. Use local altimeter setting; if not received, use Ellsworth AFB altimeter setting.									
2. VDP and Baro-VNAV not authorized when using Ellsworth AFB altimeter setting.									
3. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -21°C (-5°F) or above 54°C (130°F). 4. DME/DME RNP-0.30 not authorized.									
5. Pilot controlled lighting 125.85.									



Gnd speed-Kts	70	90	100	120	140	160				
Glide Path Angle	3.00°	372	478	531	637	743	849			
LPV, LNAV/VNAV: MAP at DA										
LNAV: MAP at RW23										

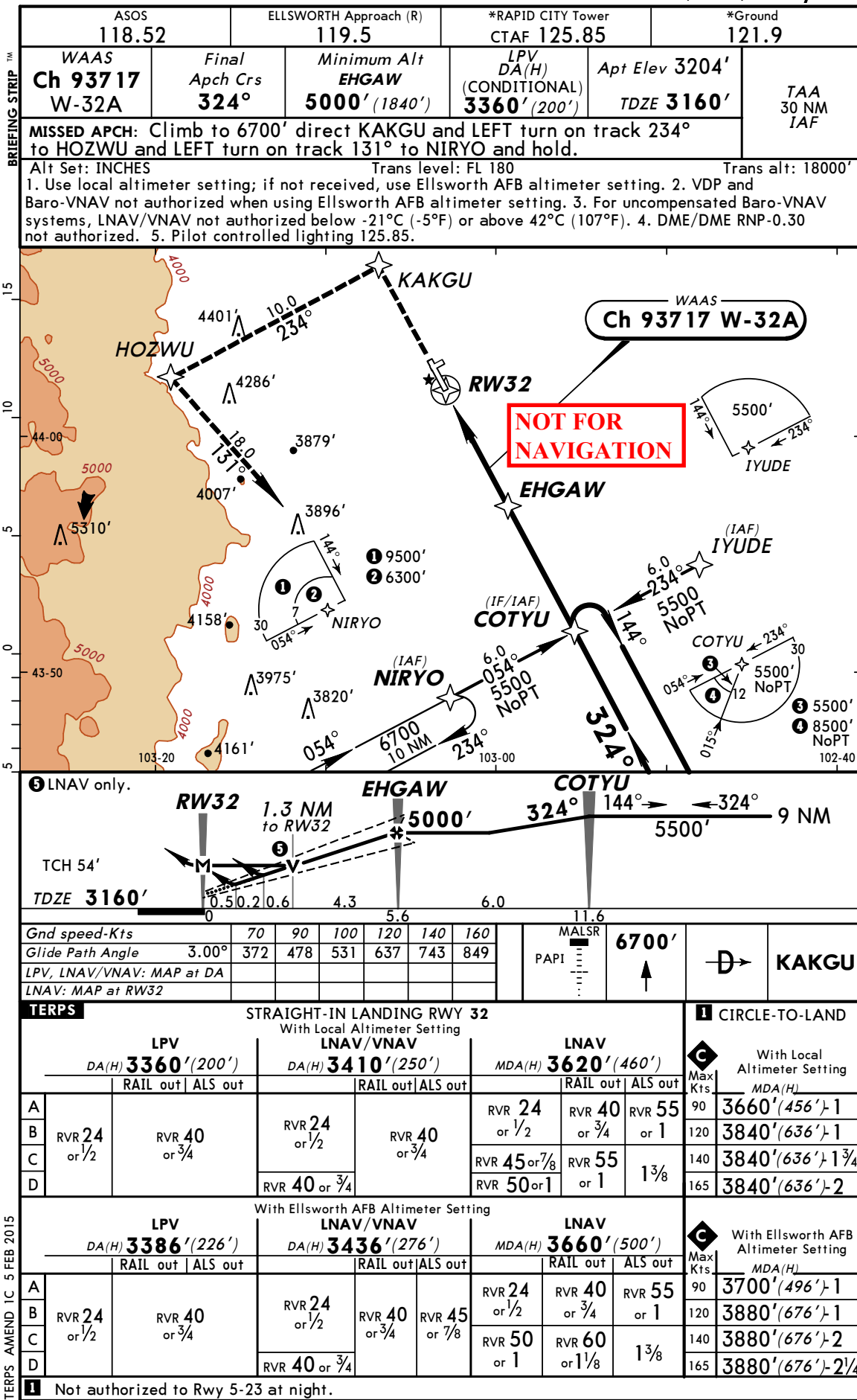
TERPS STRAIGHT-IN LANDING RWY 23			CIRCLE-TO-LAND		
1 LPV	1 LNAV/VNAV	2 LNAV	Max Kts	With Local Altimeter Setting MDA(H)	With Ellsworth AFB Altimeter Setting MDA(H)
DA(H) 3454' (250')	DA(H) 3454' (250')	MDA(H) 3560' (356')			
A	1	1	90	3660' (456')-1	3700' (496')-1
B	1	1	120	3840' (636')-1	3880' (676')-1
C	NA	NA	C	NA	NA
D	NA	NA	D	NA	NA

1 DA(H) 3479' (275') with Ellsworth AFB altimeter setting.
2 MDA(H) 3600' (396') with Ellsworth AFB altimeter setting.

KRAP/RAP RAPID CITY REGL

JEPPESSEN
30 JAN 15 (12-4)

RAPID CITY, S DAK RNAV (GPS) Rwy 32

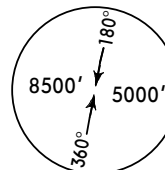


KRAP/RAP RAPID CITY REGL

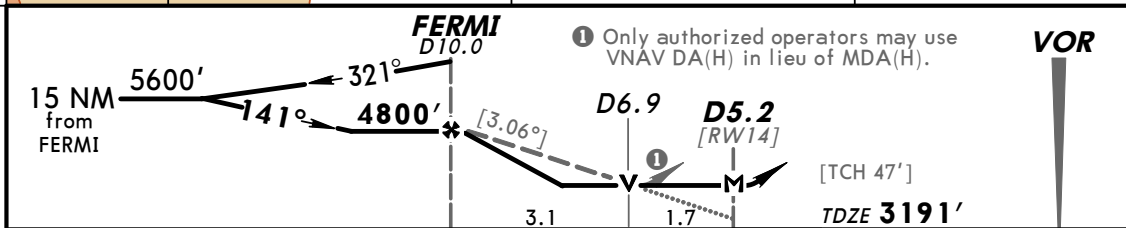
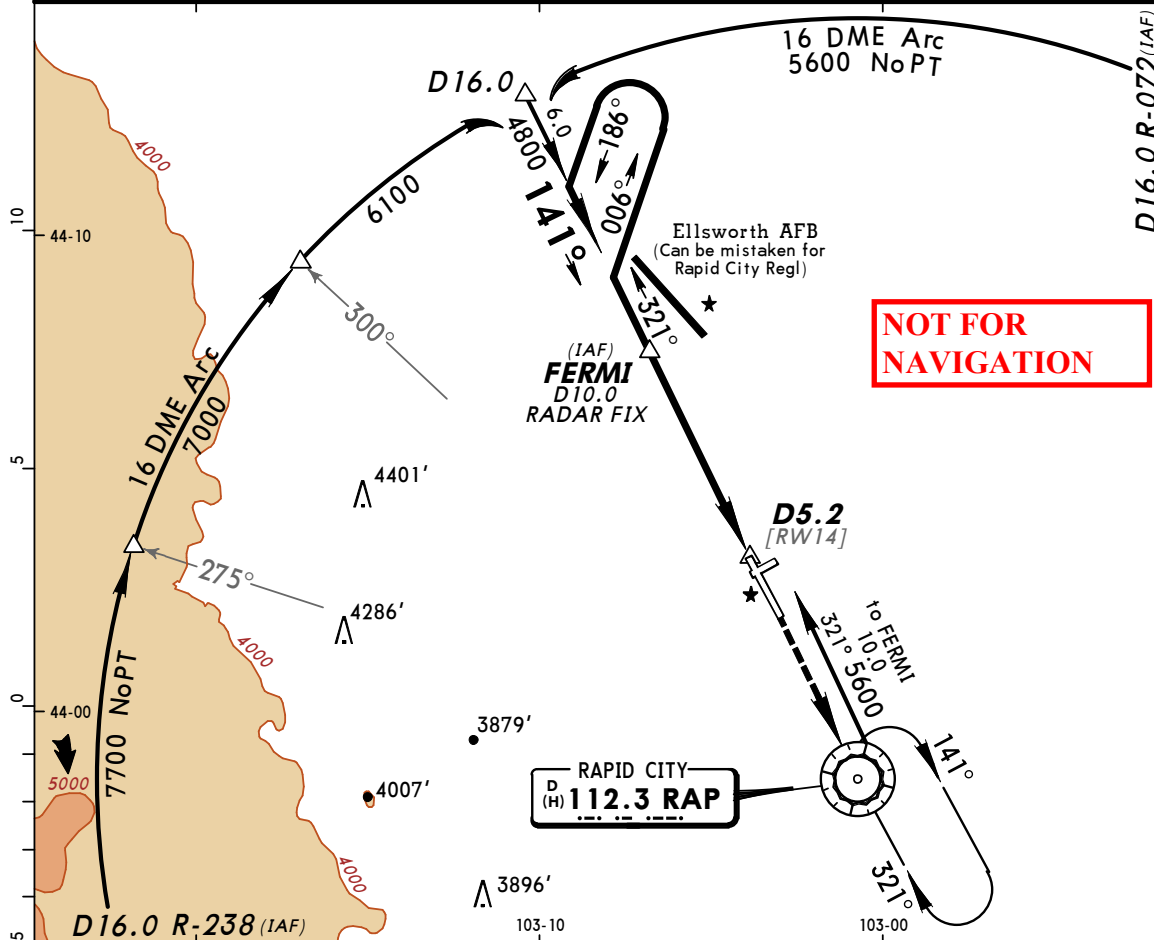
JEPPESSEN
13 MAR 15 (13-1)

RAPID CITY, S DAK
VOR Rwy 14

BRIEFING STRIP™	ASOS 118.52		ELLSWORTH Approach (R) 119.5		*RAPID CITY Tower CTAF 125.85		*Ground 121.9	
	VOR RAP 112.3	Final Apch Crs 141°	Minimum Alt FERMI 4800'(1609')	MDA(H) (CONDITIONAL) 3780'(589')	Apt Elev 3204' TDZE 3191'			
	MISSED APCH: Climb to 5600' direct RAP VOR and hold. Continue climb-in-hold to 5600'.							
	Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'			
	1. DME or Radar required. 2. Use local altimeter setting; if not received, use Ellsworth AFB altimeter setting. 3. VDP not authorized when using Ellsworth AFB altimeter setting. 4. Pilot controlled lighting 125.85.							



MSA RAP VOR



Gnd speed-Kts	70	90	100	120	140	160	REIL PAPI-L	5600' ↑	RAP 112.3
Descent Angle [3.06°]	379	487	541	650	758	866			
MAP at D5.2 or FERMI to MAP	4.8	4:07	3:12	2:53	2:24	1:48			

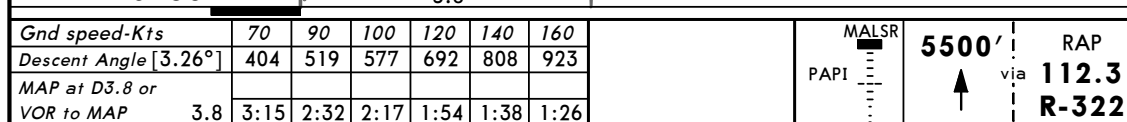
STRAIGHT-IN LANDING RWY 14			CIRCLE-TO-LAND		
MDA(H) 3780' (589') With Local Altimeter Setting		MDA(H) 3820' (629') With Ellsworth AFB Altimeter Setting	Max Kts	With Local Altimeter Setting MDA(H)	With Ellsworth AFB Altimeter Setting MDA(H)
A		1	90	3780' (576') - 1	3820' (616') - 1
B		1	120	3840' (636') - 1	3880' (676') - 1
C		1½	140	3840' (636') - 1¾	3880' (676') - 2
D		1¾	165	3840' (636') - 2	3880' (676') - 2¼

CHANGES: Circling minimums.

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TERPS AMEND OF 14 NOV 2013

RAPID CITY, S DAK
VOR Rwy 32



TERPS		STRAIGHT-IN LANDING RWY 32				CIRCLE-TO-LAND	
MDA(H) 3440' (280')		MDA(H) 3480' (320')					
With Local Altimeter Setting		With Ellsworth AFB Altimeter Setting				With Local Altimeter Setting With Ellsworth AFB Altimeter Setting	
RAIL out		ALS out		RAIL out		RAIL out	
A						90	3660' (456') - 1
B						120	3840' (636') - 1
C	RVR 40 or $\frac{3}{4}$	RVR 55 or 1	RVR 45 or $\frac{7}{8}$	RVR 55 or 1		140	3840' (636') - 1 $\frac{3}{4}$
D						165	3840' (636') - 2

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