

General Information

Location: MANZANILLO MEX
ICAO/IATA: MMZO / ZLO
Lat/Long: N19° 08.7', W104° 33.5'
Elevation: 30 ft

Airport Use: Public
Daylight Savings: Not Observed
UTC Conversion: +6:00 = UTC
Magnetic Variation: 8.0° E

Fuel Types: 100 Octane (LL), Jet A-1
Customs: Yes
Airport Type: IFR
Landing Fee: No
Control Tower: Yes
Jet Start Unit: No
LLWS Alert: No
Beacon: No

Sunrise: 1242 Z
Sunset: 0119 Z

Runway Information

Runway: 10
Length x Width: 7238 ft x 148 ft
Surface Type: asphalt
TDZ-Elev: 30 ft
Lighting: Edge

Runway: 28
Length x Width: 7238 ft x 148 ft
Surface Type: asphalt
TDZ-Elev: 30 ft
Lighting: Edge, ALS

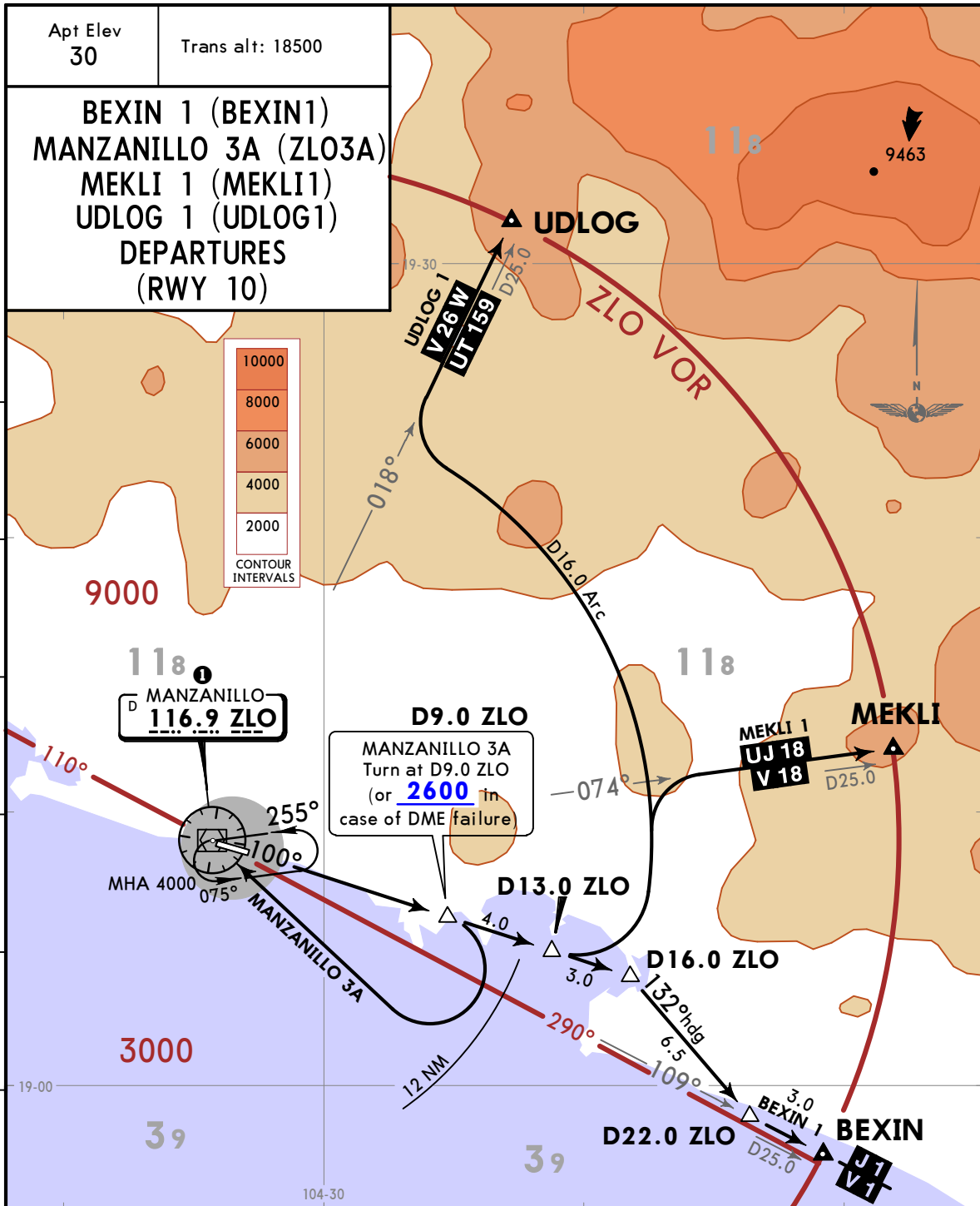
Communication Information

Manzanillo Tower: 118.700
Manzanillo Approach: 118.700

MMZO/ZLO
COSTALEGRE INTL

JEPPESEN 29 OCT 21 **10-3** Eff 4 Nov

MANZANILLO, MEXICO **SID**



These SIDs require a minimum climb gradient of 280 per NM:
 BEXIN 1 to 4200,
 MANZANILLO 3A to 7000,
 MEKLI 1 to 8600,
 UDLOG 1 to 11000.

Gnd speed-KT	75	100	150	200	250	300
280 per NM	350	467	700	933	1167	1400

MINIMUM CROSSING ALTITUDES

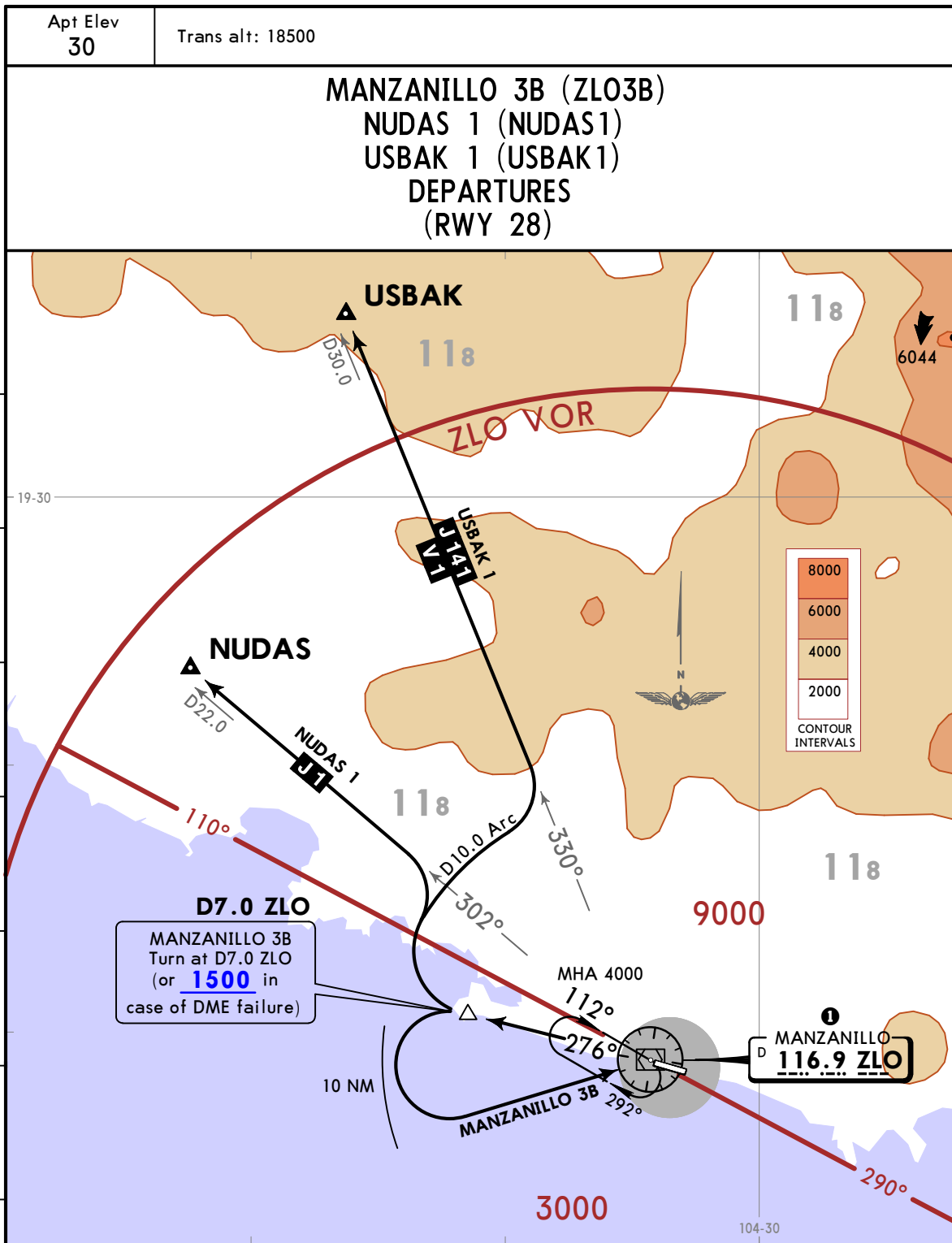
GDL	V-26W	UT159	3000
GDL	V-26	UJ-11	7700
COL	V-18	UJ-18	3000
ZIH	V-1	J-1	2000
SJD		J-1	2000
PVR	V-1	J-141	3000

SID	ROUTING
BEXIN 1	Climb via ZLO R100 until D16.0 ZLO, then turn RIGHT heading 132° to intercept ZLO R109 to BEXIN and continue on the assigned route, or according to ATC instructions.
MANZANILLO 3A	Climb via ZLO R100 until D9.0 ZLO (or 2600 in case of DME failure). Turn RIGHT within 12 NM to ZLO VOR crossing at the MCA ① for the assigned route, or according to ATC instructions.
MEKLI 1 UDLOG 1	Climb via ZLO R100 until D13.0 ZLO, then turn LEFT and proceed on the D16.0 Arc ZLO to intercept the corresponding radial from ZLO VOR to UDLOG or MEKLI and continue on the assigned route, or according to ATC instructions.

MMZO/ZLO
COSTALEGRE INTL

JEPPESEN
29 OCT 21 **10-3A** Eff 4 Nov

MANZANILLO, MEXICO
SID



These SIDs require minimum climb gradients:
 NUDAS 1: 220 per NM to 4000.
 USBAK 1: 260 per NM to 6000.

Gnd speed-KT	75	100	150	200	250	300
220 per NM	275	367	550	733	917	1100
260 per NM	325	433	650	867	1083	1300

① MINIMUM CROSSING ALTITUDES			
GDL	V-26W	UT159	3000
GDL	V-26	UJ-11	7700
COL	V-18	UJ-18	3000
ZIH	V-1	J-1	2000
SJD		J-1	2000
PVR	V-1	J-141	3000

SID	ROUTING
MANZANILLO 3B	Climb via ZLO R276 until D7.0 ZLO (or 1500 in case of DME failure). Turn LEFT within 10 NM to ZLO VOR and cross ZLO VOR according to the minimum crossing altitude ① or ATC instructions.
NUDAS 1 USBAK 1	Climb via ZLO R276 until D7.0 ZLO, then turn RIGHT and proceed on the D10.0 Arc ZLO to intercept the corresponding radial from ZLO VOR to NUDAS or USBAK and continue on the assigned route, or according to ATC instructions.

MMZO/ZLO

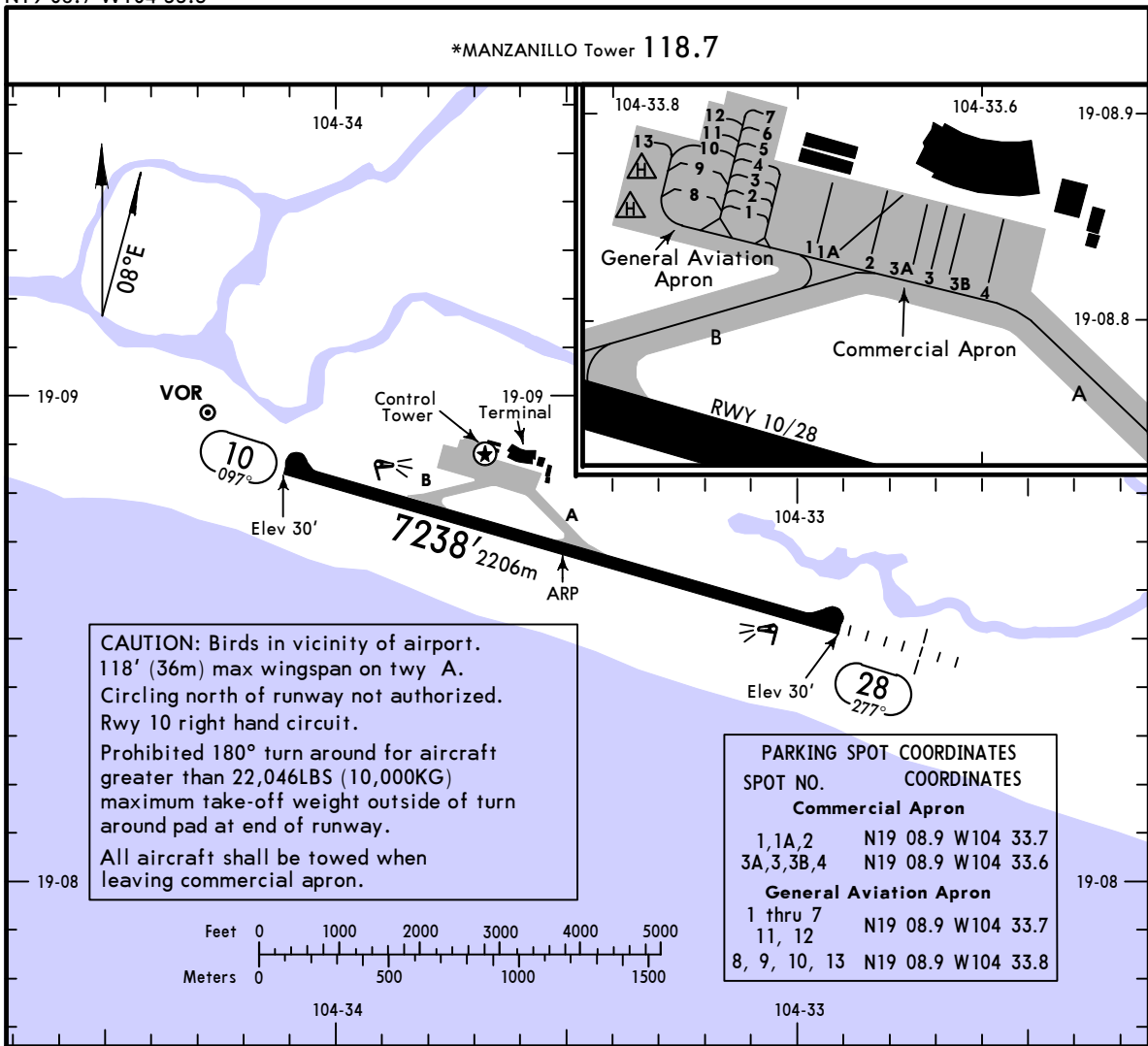
Apt Elev **30'**
N19 08.7 W104 33.5



29 OCT 21 **(10-9)** Eff 4 Nov

MANZANILLO, MEXICO

COSTALEGRE INTL



CAUTION: Birds in vicinity of airport.
118' (36m) max wingspan on twy A.
Circling north of runway not authorized.
Rwy 10 right hand circuit.
Prohibited 180° turn around for aircraft greater than 22,046LBS (10,000KG) maximum take-off weight outside of turn around pad at end of runway.
All aircraft shall be towed when leaving commercial apron.

PARKING SPOT COORDINATES	
SPOT NO.	COORDINATES
Commercial Apron	
1, 1A, 2	N19 08.9 W104 33.7
3A, 3, 3B, 4	N19 08.9 W104 33.6
General Aviation Apron	
1 thru 7	N19 08.9 W104 33.7
11, 12	N19 08.9 W104 33.7
8, 9, 10, 13	N19 08.9 W104 33.8



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS			WIDTH
		Threshold	Glide Slope	TAKE-OFF	
10	HIRL PAPI-L (angle 3.0°)				148'
28	HIRL SALSF PAPI-L (angle 3.0°)				45m

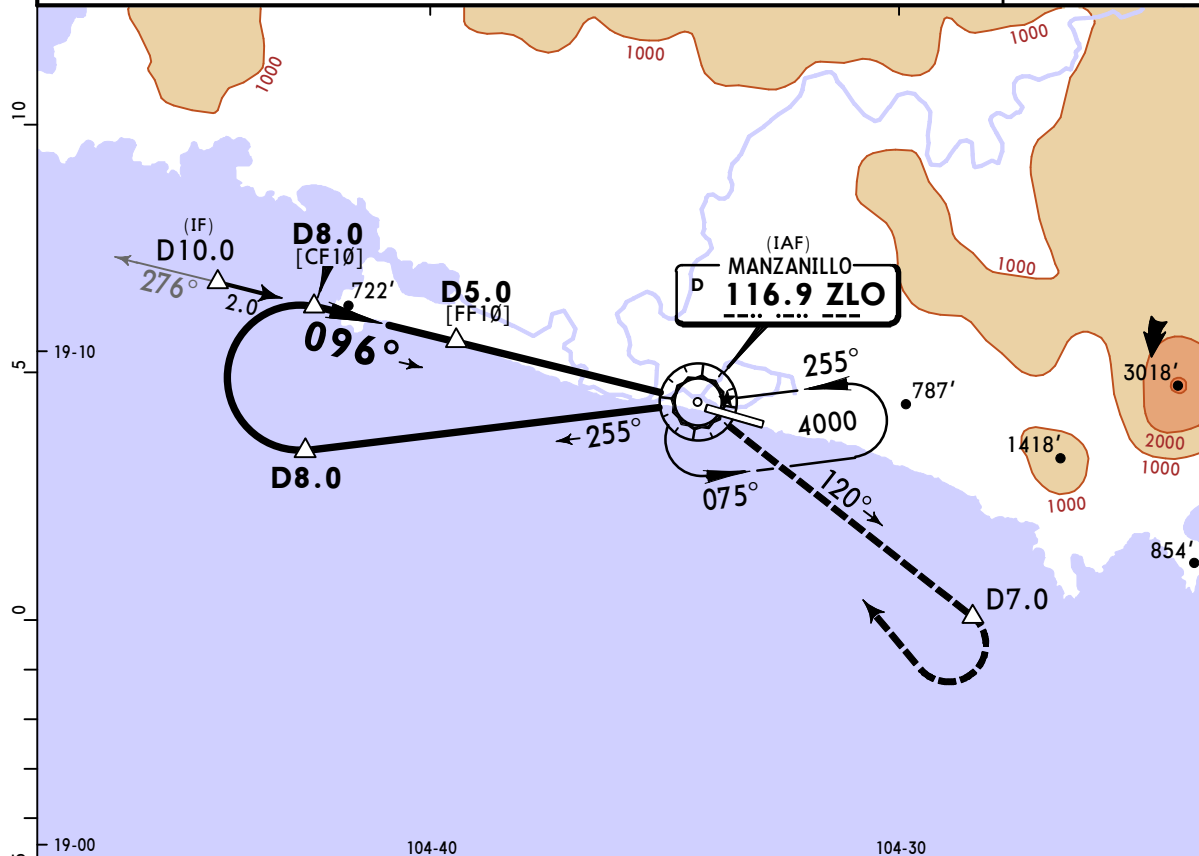
TAKE-OFF		FOR FILING AS ALTERNATE	
	Rwy 28	Rwy 10	
1 & 2 Eng	1	1300-2	A
3 & 4 Eng	1/2		B
			C
			D

MMZO/ZLO
COSTALEGRE INTL

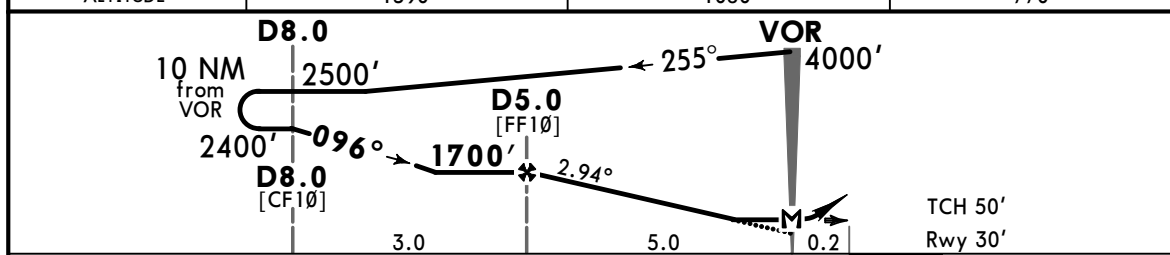
JEPPESEN
29 OCT 21 **13-1** Eff 4 Nov

MANZANILLO, MEXICO
VOR DME 1 Rwy 10

*MANZANILLO Approach				*MANZANILLO Tower		
118.7				118.7		
VOR ZLO 116.9	Final Apch Crs 096°	D5.0 1700' (1670')	MDA(H) 520' (490')	Apt Elev 30' Rwy 30'		
MISSED APCH: Climbing RIGHT turn to intercept outbound ZLO VOR R-120 to D7.0, then turn RIGHT within 10 NM to ZLO VOR at the minimum holding altitude.						
Alt Set: IN (MB on req)		Trans level: FL 195		Trans alt: 18500'		MSA ZLO VOR



ZLO DME	4.0	3.0	2.0
ALTITUDE	1390'	1080'	770'



Gnd speed-Kts	70	90	100	120	140	160	PAPI-L		ZLO	D7.0
Descent Angle 2.94°	364	468	520	624	728	832			116.9	
MAP at VOR									R-120	
FAF to MAP	5.0	4:17	3:20	3:00	2:30	2:09			1:53	

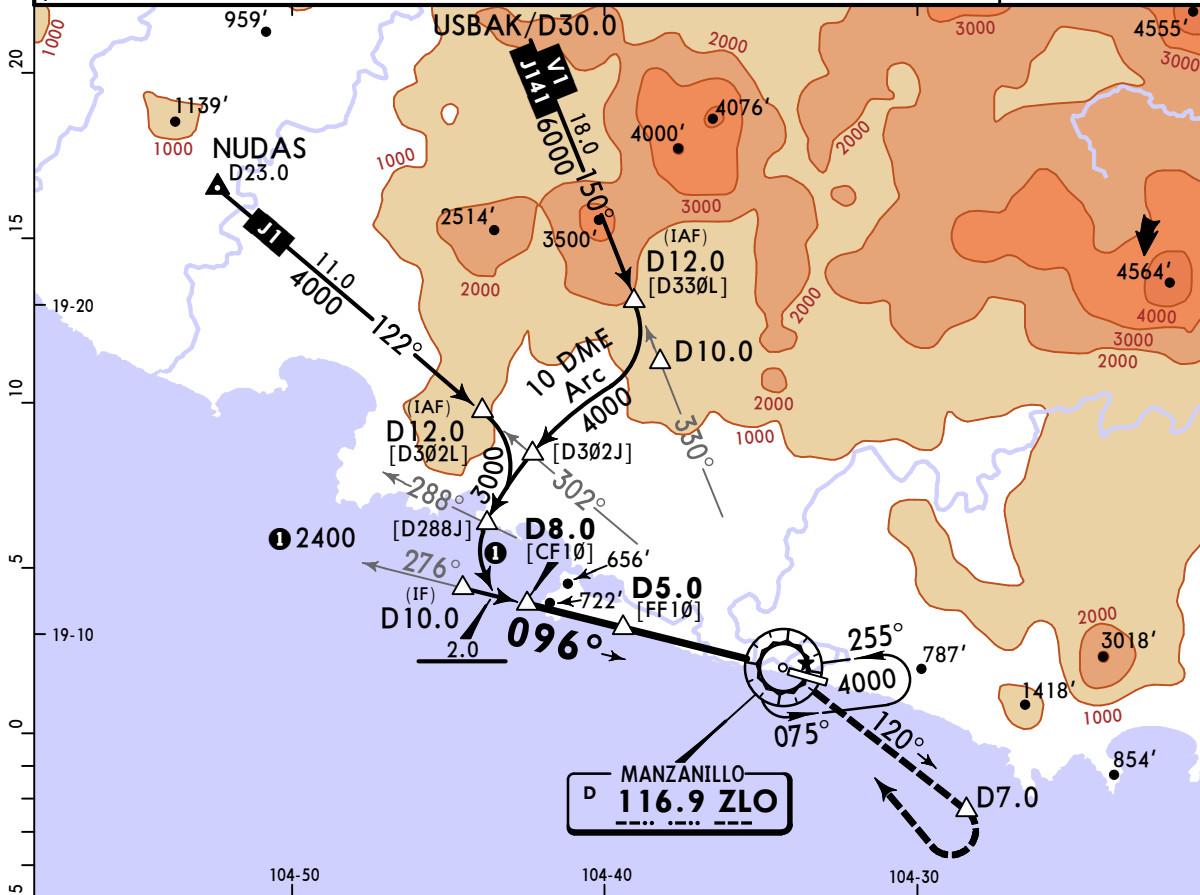
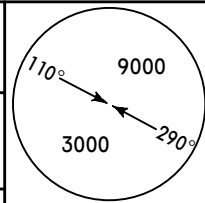
STRAIGHT-IN LANDING RWY 10				CIRCLE-TO-LAND			
MDA(H) 520' (490')				Not Authorized North of Rwy 10/28			
A	1			Max Kts	MDA(H)		
B	1			90	580' (550') - 1		
C	1¼			120	840' (810') - 2¼		
D	1½			140	840' (810') - 2½		
				165	840' (810') - 2½		

MMZO/ZLO COSTALEGRE INTL

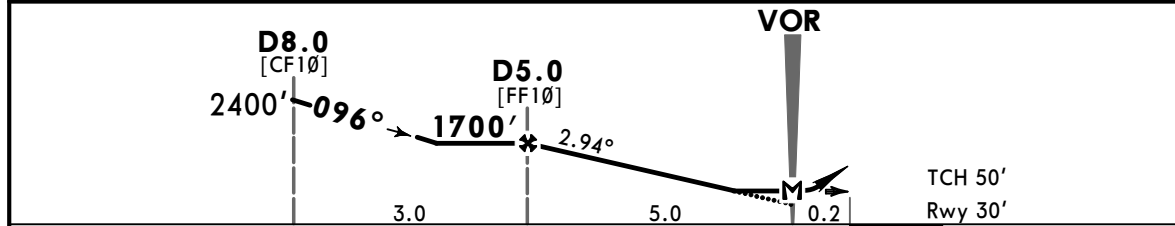
JEPPESSEN
29 OCT 21 **(13-2)** Eff 4 Nov

MANZANILLO, MEXICO VOR DME 2 Rwy 10

*MANZANILLO Approach 118.7				*MANZANILLO Tower 118.7	
BRIEFING STRIP™	VOR ZLO 116.9	Final Apch Crs 096°	D5.0 1700' (1670')	MDA(H) 520' (490')	Apt Elev 30' Rwy 30'
	MISSED APCH: Climbing RIGHT turn to intercept outbound ZLO VOR R-120 to D7.0, then turn RIGHT within 10 NM to ZLO VOR at the minimum holding altitude.				
	Alt Set: IN (MB on req)		Trans level: FL 195		Trans alt: 18500'
	1. In case of DME failure during the procedure, maintain last assigned altitude and proceed to the station in accordance with ATC instructions.				



ZLO DME	4.0	3.0	2.0
ALTITUDE	1390'	1080'	770'



Gnd speed-Kts	70	90	100	120	140	160	PAPI-L	RT	ZLO 116.9	D7.0 R-120
Descent Angle	2.94°	364	468	520	624	728				
MAP at VOR										
FAF to MAP	5.0	4:17	3:20	3:00	2:30	2:09				

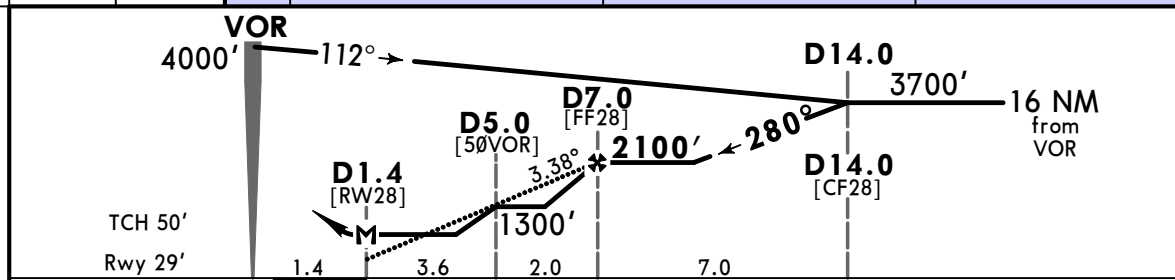
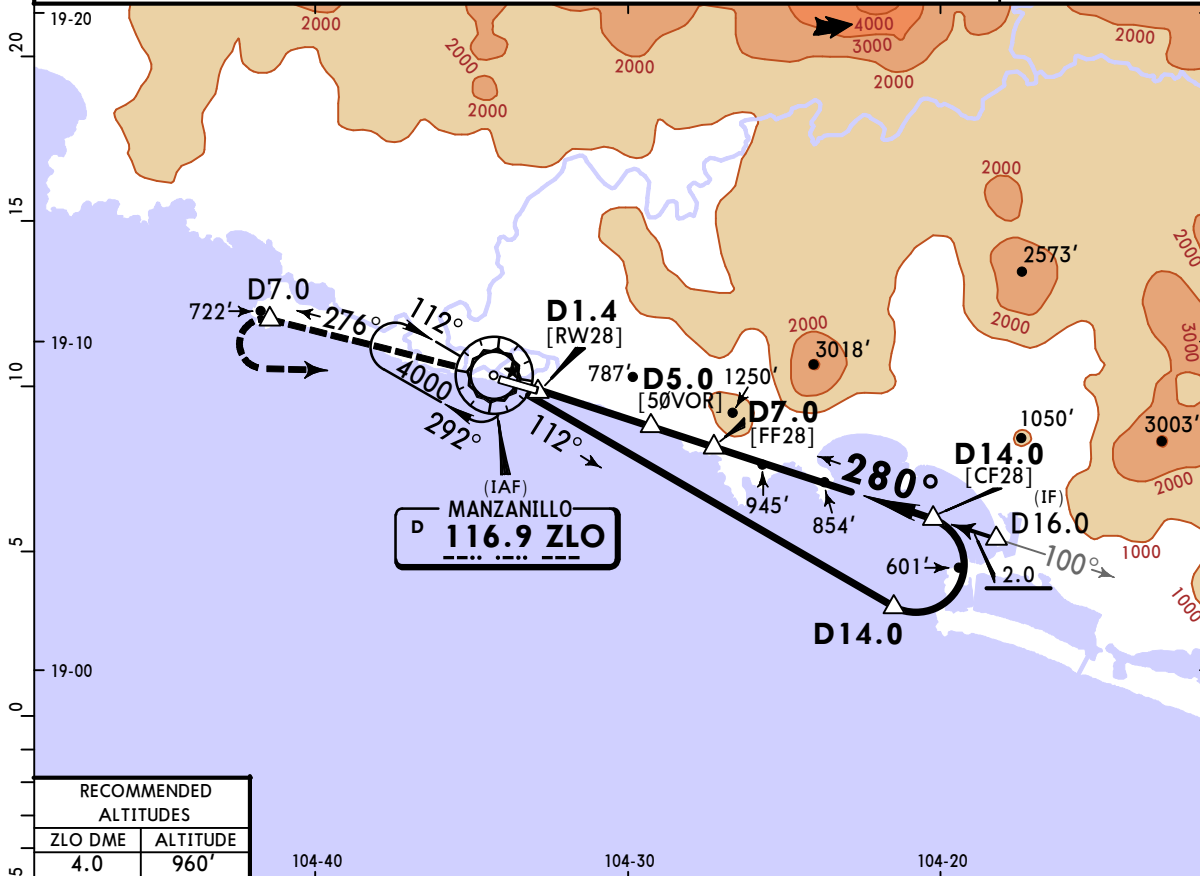
STRAIGHT-IN LANDING RWY 10			CIRCLE-TO-LAND		
MDA(H) 520' (490')			Not Authorized North of Rwy 10/28		
A	1	Max Kts	MDA(H)		
B		90	580' (550') - 1		
C	1¼	140	840' (810') - 2¼		
D	1½	165	840' (810') - 2½		

MMZO/ZLO COSTALEGRE INTL

JEPPESSEN
29 OCT 21 **(13-3)** Eff 4 Nov

MANZANILLO, MEXICO VOR DME 1 Rwy 28

*MANZANILLO Approach 118.7				*MANZANILLO Tower 118.7	
VOR ZLO 116.9	Final Apch Crs 280°	D7.0 2100' (2071')	MDA(H) 920' (891')	Apt Elev 30' Rwy 29'	
MISSED APCH: Climb outbound via ZLO VOR R-276 to D7.0, then turn LEFT within 10 NM to ZLO VOR at the minimum holding altitude.					
Alt Set: IN (MB on req)		Trans level: FL 195		Trans alt: 18500'	
1. In case of PAPI light system failure on Rwy 28 during night operations, preferential landings shall be carried out on Rwy 10.					
					MSA ZLO VOR



Gnd speed-Kts	70	90	100	120	140	160	SALSF	PAPI	LT	ZLO 116.9	D7.0 R-276
Descent Angle	3.38°	419	538	598	718	957					
MAP at D1.4											
FAF to MAP	5.6	4:48	3:44	3:22	2:48	2:24	2:06				

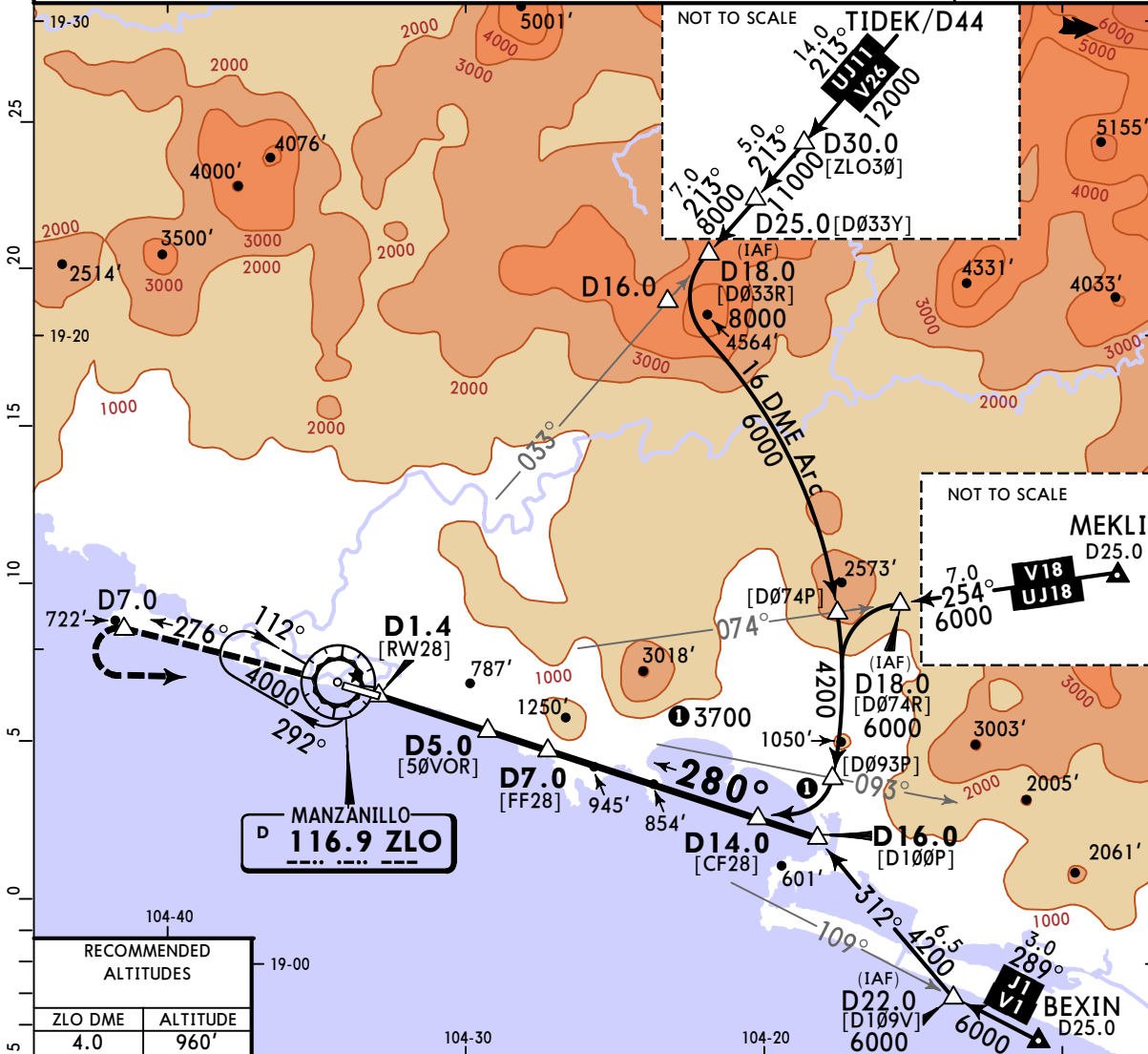
STRAIGHT-IN LANDING RWY 28				CIRCLE-TO-LAND			
MDA(H) 920' (891')				Not Authorized North of Rwy 10/28			
ALS out				Max Kts			
A	1 1/4			90	980' (950') - 1 1/4		
B	2 3/4			120	980' (950') - 2 3/4		
C	3			140	980' (950') - 3		
D				165	980' (950') - 3		

MMZO/ZLO COSTALEGRE INTL

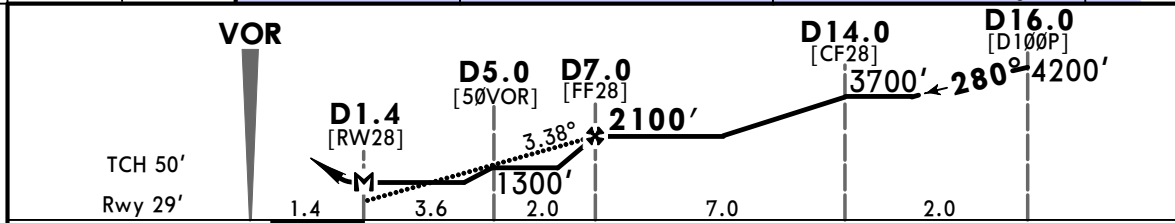
JEPPESSEN
29 OCT 21 **(13-4)** Eff 4 Nov

MANZANILLO, MEXICO VOR DME 2 Rwy 28

*MANZANILLO Approach 118.7				*MANZANILLO Tower 118.7		
VOR ZLO 116.9	Final Apch Crs 280°	D7.0 2100' (2071')	MDA(H) 920' (891')	Apt Elev 30' Rwy 29'	<p>MSA ZLO VOR</p>	
MISSED APCH: Climb outbound via ZLO VOR R-276 to D7.0, then turn LEFT within 10 NM to ZLO VOR at the minimum holding altitude.						
Alt Set: IN (MB on req) Trans level: FL 195 Trans alt: 18500'						
1. In case of PAPI light system failure on Rwy 28 during night ops, preferential landings shall be carried out on Rwy 10. 2. In case of DME failure during the procedure maintain last assigned altitude and proceed to the station in accordance with ATC instructions.						



RECOMMENDED ALTITUDES	
ZLO DME	ALTITUDE
4.0	960'



Gnd speed-Kts	70	90	100	120	140	160
Descent Angle 3.38°	419	538	598	718	837	957
MAP at D1.4						
FAF to MAP	5.6	4:48	3:44	3:22	2:48	2:24

SALSF PAPI LT ZLO **116.9** D7.0
 R-276

STRAIGHT-IN LANDING RWY 28			CIRCLE-TO-LAND		
MDA(H) 920' (891')			Not Authorized North of Rwy 10/28		
	ALS out	Max Kts.	MDA(H)		
A		90	980' (950') - 1 1/4		
B	1 1/4	120	980' (950') - 2 3/4		
C	2 3/4	140	980' (950') - 3		
D	3	165			

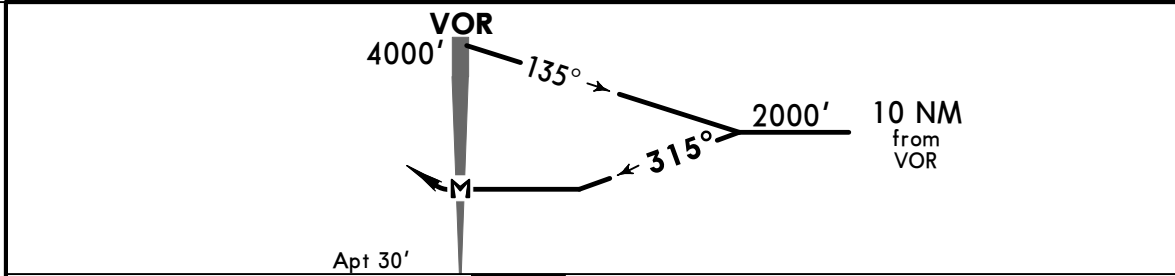
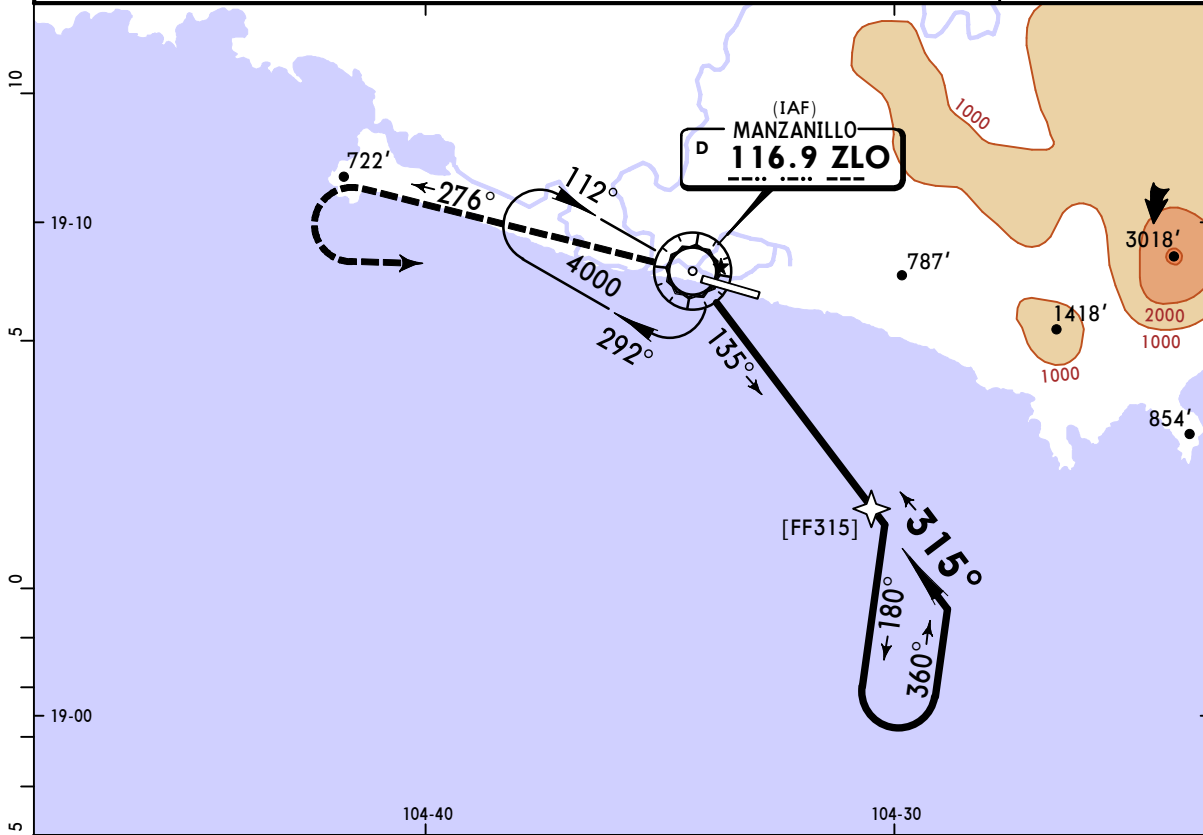
CHANGES: Airport name, MAP, topo.

MMZO/ZLO
COSTALEGRE INTL

JEPPESSEN
29 OCT 21 **(13-5)** Eff 4 Nov

MANZANILLO, MEXICO
VOR-A

*MANZANILLO Approach				*MANZANILLO Tower																		
118.7				118.7																		
VOR ZLO 116.9	Final Apch Crs 315°	No FAF	MDA(H) Refer to Minimums	Apt Elev 30'																		
MISSED APCH: Climb outbound via ZLO VOR R-276, then turn LEFT within 10 NM to ZLO VOR at the minimum holding altitude.																						
MISSED APCH: Max Distance Outbound Track 7 NM <table border="1"> <tr> <td>Gnd Speed-Kts</td> <td>80</td> <td>100</td> <td>120</td> <td>140</td> <td>160</td> <td>180</td> <td>200</td> </tr> <tr> <td>Time</td> <td>5:15</td> <td>4:12</td> <td>3:30</td> <td>3:00</td> <td>2:38</td> <td>2:20</td> <td>2:06</td> </tr> </table>								Gnd Speed-Kts	80	100	120	140	160	180	200	Time	5:15	4:12	3:30	3:00	2:38	2:20
Gnd Speed-Kts	80	100	120	140	160	180	200															
Time	5:15	4:12	3:30	3:00	2:38	2:20	2:06															
Alt Set: IN (MB on req)		Trans level: FL 195		Trans alt: 18500'			MSA ZLO VOR															



MAP at VOR							Lighting - Refer to Airport Chart	LT	ZLO 116.9 R-276
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CIRCLE-TO-LAND	
Not Authorized North of Rwy 10/28	
	MDA(H)
A	980' (950') - 1¼
B	
C	
D	1100' (1070') - 3