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Changed chart(s) since Disc 22-2007

ADD = Added chart, REV = Revised chart, DEL = Deleted chart.

ACT	PROCEDURE IDENT	INDEX	REV DATE	EFF DATE
<b>Monterrey, (Del Norte Intl - MMAN)</b>				
ADD	ONBON 1B DEP	20-3	16 Nov 2007	22 Nov 2007
DEL	ONBON 1C, URTUS 1B DEPS	20-3	16 Nov 2007	22 Nov 2007
ADD	ONBON 1C, URTUS 1B DEPS	20-3A	16 Nov 2007	22 Nov 2007
DEL	ROBERTO 2A DEP	20-3A	16 Nov 2007	22 Nov 2007
ADD	ROBERTO 2A DEP	20-3B	16 Nov 2007	22 Nov 2007
ADD	ROBERTO 3B DEP	20-3C	16 Nov 2007	22 Nov 2007
ADD	ILS DME OR LOC RWY 20	21-1	16 Nov 2007	
REV	VOR DME 1 RWY 20	23-1	16 Nov 2007	
REV	AIRPORT, AIRPORT INFO, TAKE...	23-1	16 Nov 2007	
REV	VOR DME 2 RWY 20	23-2	16 Nov 2007	
REV	VOR DME 3 RWY 20	23-3	16 Nov 2007	
REV	VOR DME RWY 20	23-4	16 Nov 2007	
REV	VOR RWY 20	23-5	16 Nov 2007	
REV	VOR DME RWY 29	23-6	16 Nov 2007	

**TERMINAL CHART NOTAMS****Chart NOTAMs for Airport MMAN**

**Type:** Terminal  
**Effectivity:** Permanent  
**Begin Date:** Immediately  
**End Date:** No end date

Twy A north of rwy 11-29 not visible from Control Tower.

**Chart NOTAMs for Country MEX**

**Type:** Gen Tmnl  
**Effectivity:** Temporary  
**Begin Date:** Immediately  
**End Date:** Until Further Notice

For all MEXICO -- Transition level FL195, Transition altitude 18,500'.

## General Info

Monterrey, MEX

N 25° 51.936' W100° 14.233' Mag Var: 7.1°E

Elevation: 1473'

Brownsville Sectional

Public, Control Tower, IFR, No Fee, Rotating Beacon, Customs

Fuel: 100-130, Jet A-1

Repairs: Minor Airframe, Minor Engine

Time Zone Info: Mexico City Time GMT-6:00 uses DST

## Runway Info

Runway 02-20 6598' x 148' asphalt

Runway 11-29 5049' x 148' asphalt

Runway 02 (25.0°M) TDZE 1473'

Lights: Edge

Displaced Threshold Distance 236'

Runway 11 (114.0°M) TDZE 1473'

Displaced Threshold Distance 262'

Runway 20 (205.0°M) TDZE 1473'

Lights: Edge

Runway 29 (294.0°M) TDZE 1473'

Displaced Threshold Distance 335'

## Communications Info

ATIS **127.55**

Del Norte Tower **118.6**

Monterrey Approach Control **121.4**

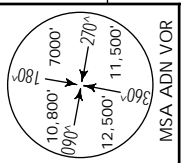
Monterrey Approach Control **119.75**

## Notebook Info

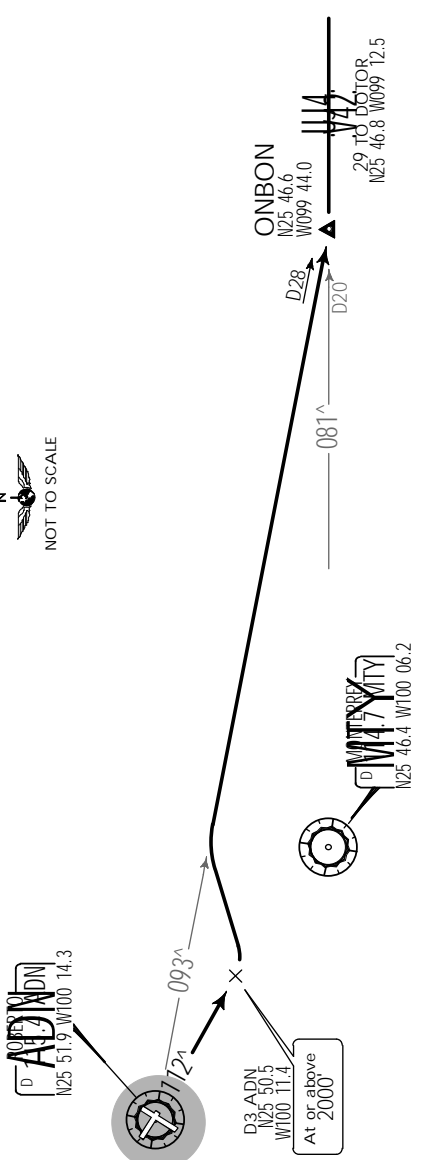
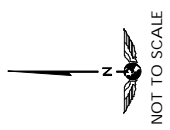
MMAN/NTR MONTERREY, MEXICO  
 DEL NORTE INTL .SID.

JEPPESEN  
 16 NOV 07 (20-3) .Eff.22.Nov.

Apt Elev 1476' Trans level: FL 195 Trans alt: 18500'



DEPARTURE RWY 11  
 ONBON ONE BRAVO (ONBON1B)

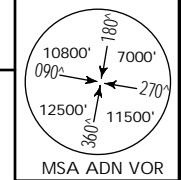


INITIAL CLIMB  
 Climb on ADN R-112 to D3-ADN, then turn LEFT to intercept ADN R-093 to ONBON, then continue on assigned route or in accordance with ATC instructions.

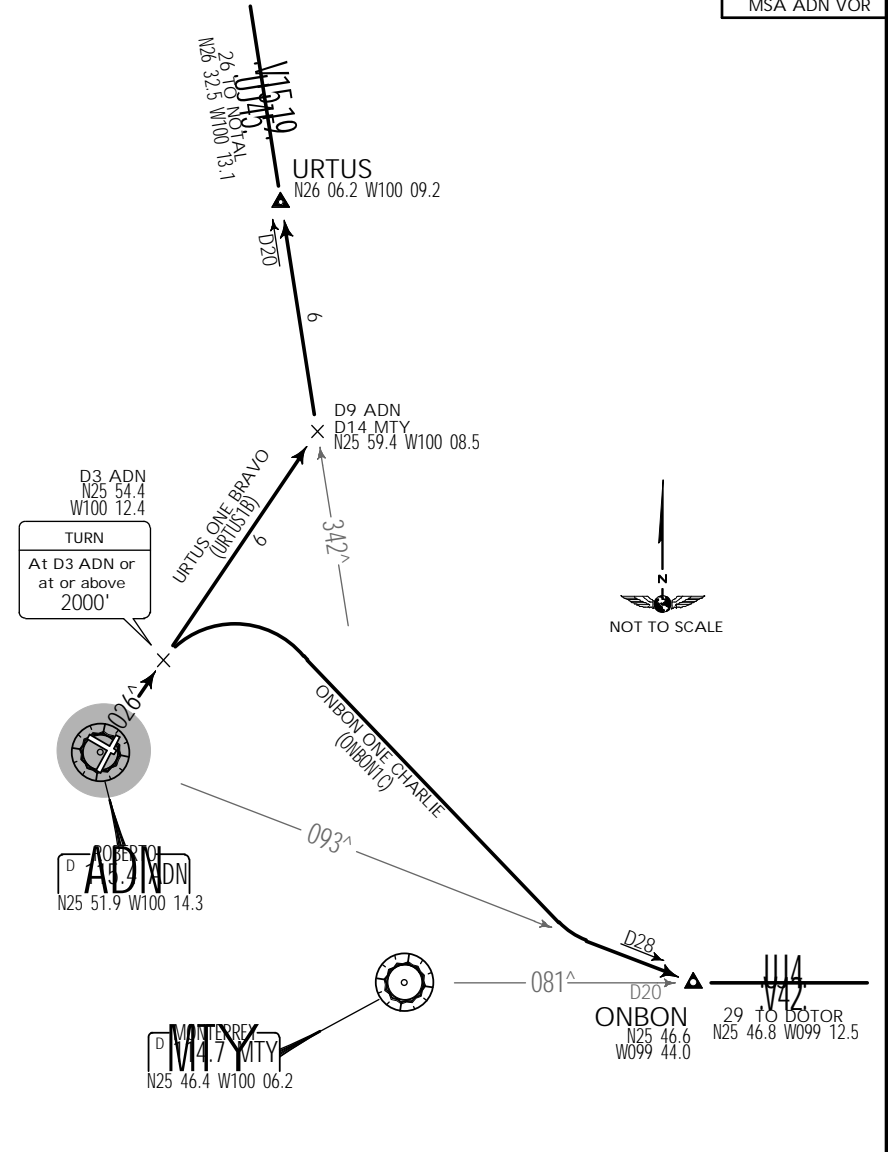
MMAN/NTR MONTERREY, MEXICO  
 DEL NORTE INTL .SID.

JEPPESEN  
 15 JUL 05 (20-3)

Apt Elev 1476' Trans level: FL195 Trans alt: 18500'

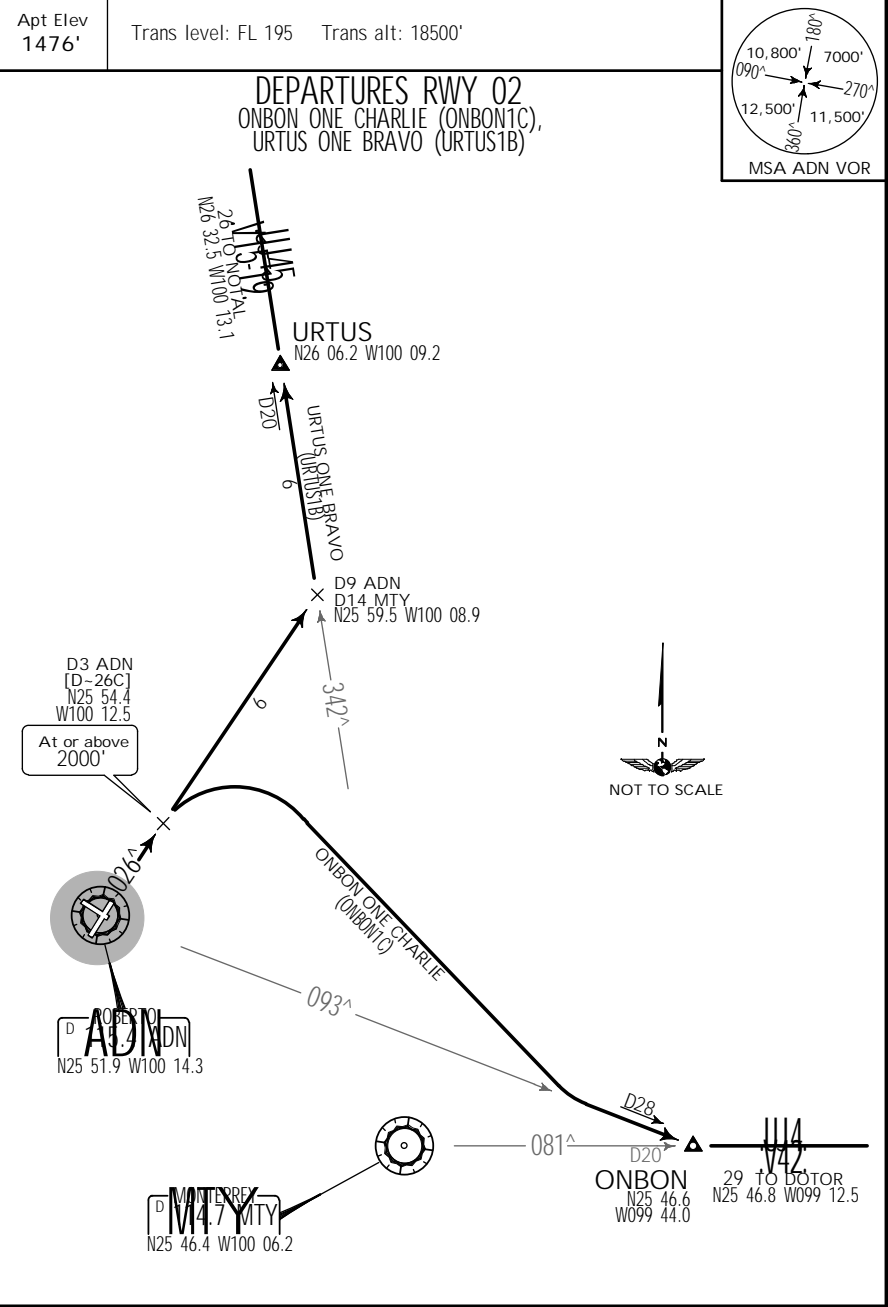


DEPARTURES RWY 02  
 ONBON ONE CHARLIE (ONBON1C)  
 URTUS ONE BRAVO (URTUS1B)



SID	ROUTING
ONBON ONE CHARLIE	Climb on ADN R-026 to D3-ADN or at or above 2000', then turn RIGHT and intercept ADN R-093 to ONBON. Then continue on assigned route or in accordance with ATC instructions.
URTUS ONE BRAVO	Climb on ADN R-026 to D9-ADN, turn LEFT and intercept ADN R-342 to URTUS. Then continue on assigned route or in accordance with ATC instructions.

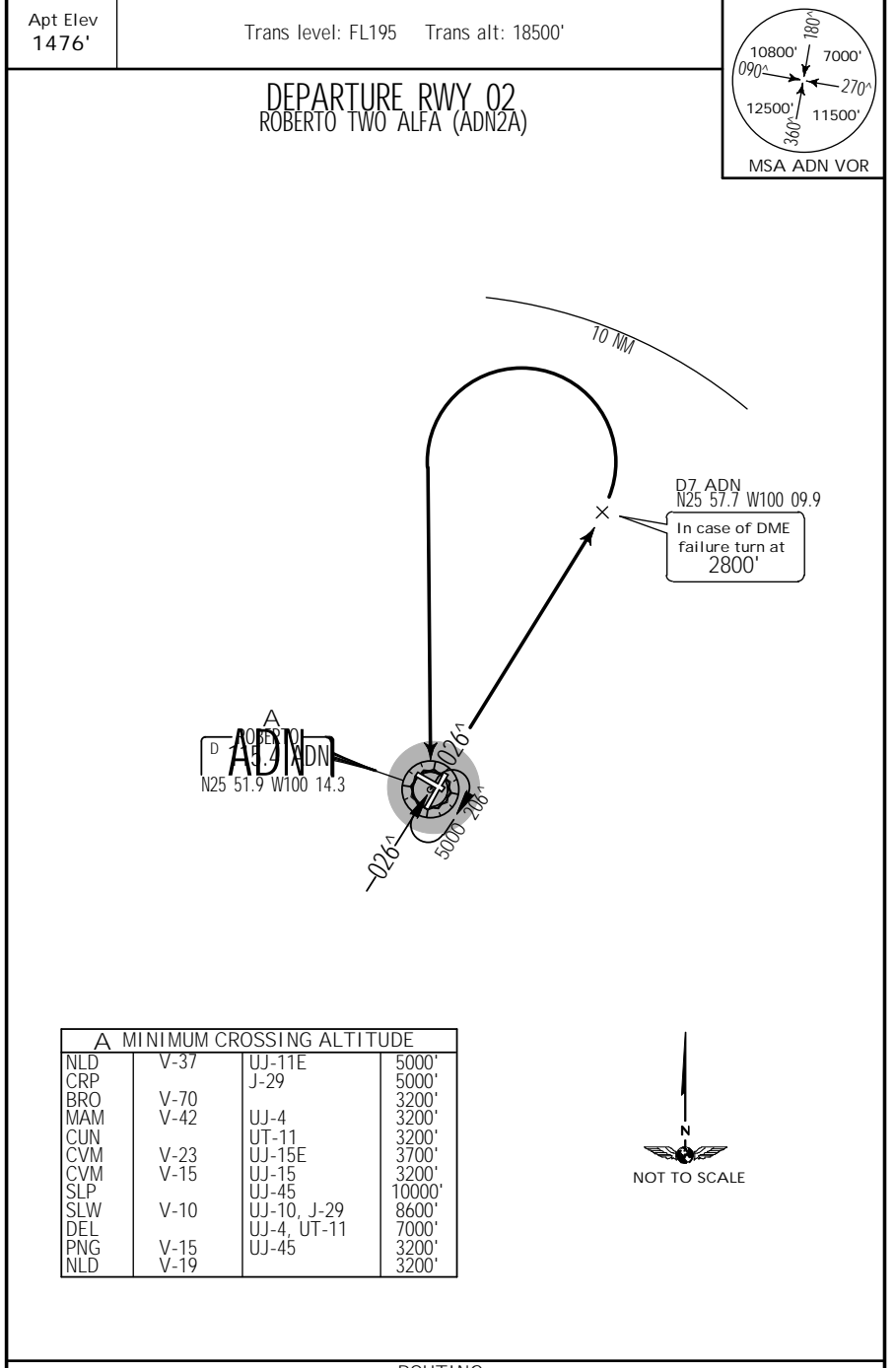
**MMAN/NTR DEL NORTE INTL** **JEPPESEN** **MONTERREY, MEXICO**  
 16 NOV 07 **(20-3A)** .Eff.22.Nov. .SID.



SID	INITIAL CLIMB
ONBON ONE CHARLIE	Climb on ADN R-026 to D3 ADN, then turn RIGHT and intercept ADN R-093 to ONBON.
URTUS ONE BRAVO	Climb on ADN R-026 to D9 ADN, then turn LEFT and intercept MTY R-342 to URTUS.
ROUTING	
Then continue on assigned route or in accordance with ATC instructions.	

CHANGES: ONBON ONE CHARLIE Initial climb, reindexed. | JEPPESEN SANDERSON, INC., 2003, 2007. ALL RIGHTS RESERVED.

**MMAN/NTR DEL NORTE INTL** **JEPPESEN** **MONTERREY, MEXICO**  
 15 JUL 05 **(20-3A)** .SID.



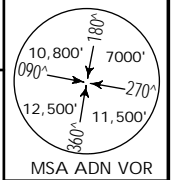
A MINIMUM CROSSING ALTITUDE			
NLD	V-37	UJ-11E	5000'
CRP		J-29	5000'
BRO	V-70		3200'
MAM	V-42	UJ-4	3200'
CUN		UT-11	3200'
CVM	V-23	UJ-15E	3700'
CVM	V-15	UJ-15	3200'
SLP		UJ-45	10000'
SLW	V-10	UJ-10, J-29	8600'
DEL		UJ-4, UT-11	7000'
PNG	V-15	UJ-45	3200'
NLD	V-19		3200'

ROUTING	
Climb on ADN R-026 to D7 ADN (to 2800' in case of DME failure), then tear drop turn LEFT within 10 NM to cross ADN at the published MCA A for the assigned route or in accordance with ATC instructions.	

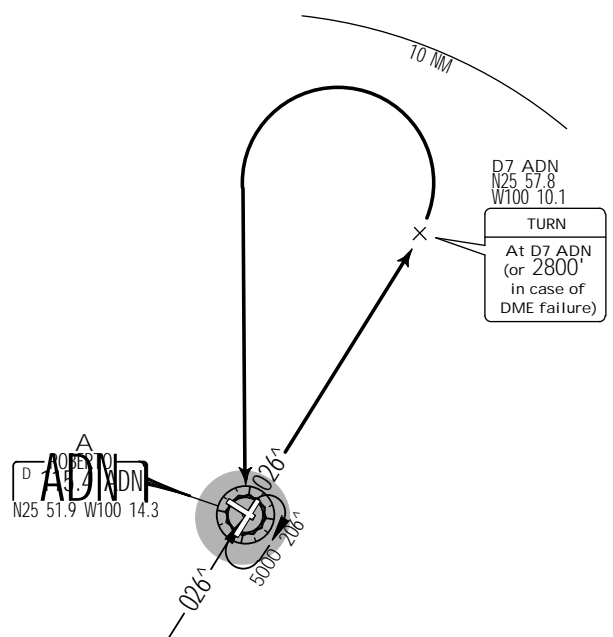
CHANGES: Routing. | JEPPESEN SANDERSON, INC., 2003, 2005. ALL RIGHTS RESERVED.

MMAN/NTR DEL NORTE INTL JEPPESEN MONTERREY, MEXICO .SID.  
 16 NOV 07 (20-3B) .Eff.22.Nov.

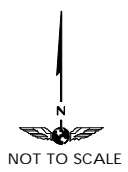
Apt Elev 1476' Trans level: FL 195 Trans alt: 18500'



DEPARTURE RWY 02  
 ROBERTO TWO ALFA (ADN2A)



A MINIMUM CROSSING ALTITUDE			
NLD	V-37	UJ-11E	5000
CRP		J-29	5000
BRO	V-70		3200
MAM	V-42	UJ-4	3200
CUN		UT-11	3200
CVM	V-23	UJ-15E	3700
CVM	V-15	UJ-15	3200
SLP		UJ-45	10000
SLW	V-10	UJ-10, J-29	8600
DEL		UJ-4, UT-11	7000
PNG	V-15	UJ-45	3200
NLD	V-19		3200

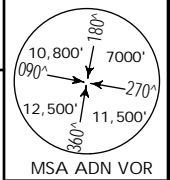


INITIAL CLIMB

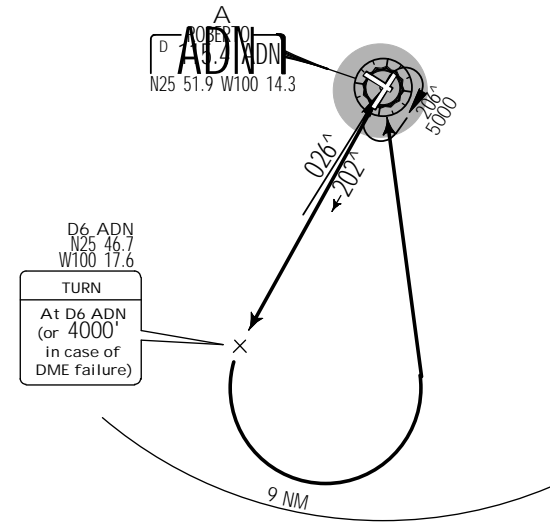
Climb on ADN R-026 to D7 ADN (to 2800' in case of DME failure), then tear drop turn LEFT within 10 NM to cross ADN at the published MCA A for the assigned route or in accordance with ATC instructions.

MMAN/NTR DEL NORTE INTL JEPPESEN MONTERREY, MEXICO .SID.  
 16 NOV 07 (20-3C) .Eff.22.Nov.

Apt Elev 1476' Trans level: FL 195 Trans alt: 18500'



DEPARTURE RWY 20  
 ROBERTO THREE BRAVO (ADN3B)



A MINIMUM CROSSING ALTITUDE			
NLD	V-37	UJ-11E	5000
CRP		J-29	5000
BRO	V-70		3200
MAM	V-42	UJ-4	3200
CUN		UT-11	3200
CVM	V-23	UJ-15E	3700
CVM	V-15	UJ-15	3200
SLP		UJ-45	10000
SLW	V-10	UJ-10, J-29	8600
DEL		UJ-4, UT-11	7000
PNG	V-15	UJ-45	3200
NLD	V-19		3200

This SID requires a minimum climb gradient of 470' per NM until reaching 4000'.

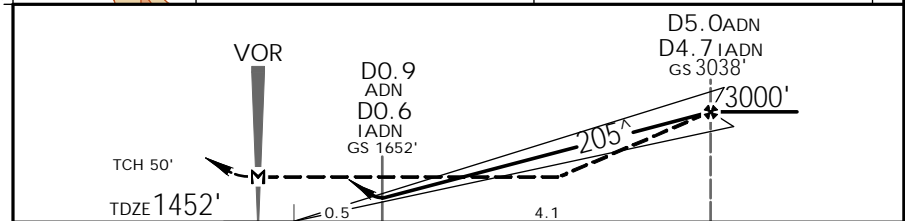
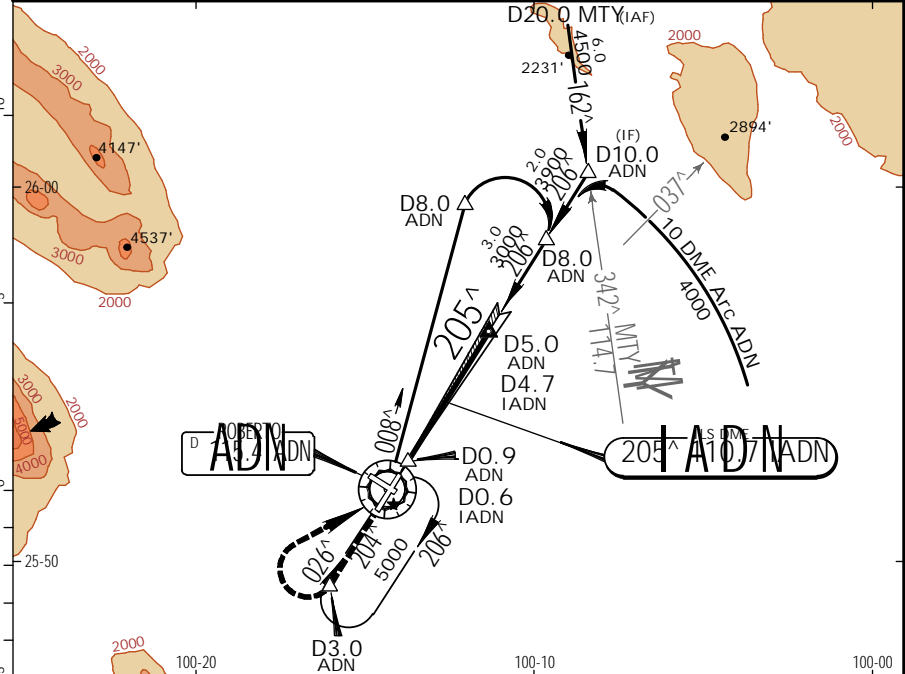
Gnd speed-KT	75	100	150	200	250	300
470' per NM	588	783	1175	1567	1958	2350

INITIAL CLIMB

Climb on ADN R-202 to D6 ADN (to 4000' in case of DME failure), then tear drop turn LEFT within 9 NM to cross ADN at the published MCA A for the assigned route or in accordance with ATC instructions.

MMAN/NTR DEL NORTE INTL  
 JEPPESEN 16 NOV 07 (21-1)  
 MONTERREY, MEXICO  
 ILS DME or LOC Rwy 20

* ATIS 127.55		MONTERREY Approach (R) 119.75 121.4		* DEL NORTE Tower 118.6	
LOC IADN 110.7	Final Apch Crs 205 <sup>^</sup>	GS D5.0 ADN D4.7 IADN 3038' (1586')	ILS DA(H) 1652' (200')	Apt Elev 1476' TDZE 1452'	
MISSED APCH: Climb on ADN VOR R-204 to D3.0 ADN, turn RIGHT within 5 NM to ADN VOR, continue on ADN VOR R-008 to D8.0 ADN, turn RIGHT within 10 NM to ADN VOR to the minimum holding altitude.					
Alt Set: MB (IN on req) TDZ Elev: 52 MB Trans level: FL 195 Trans alt: 18500'				MSA ADN VOR	

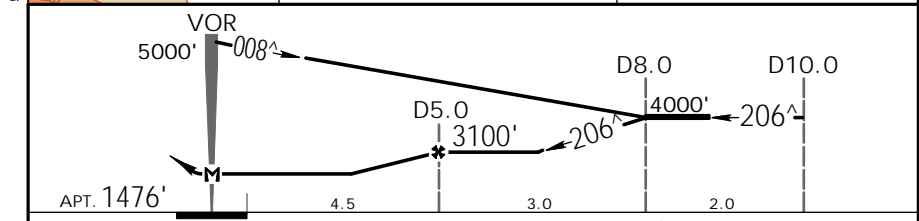
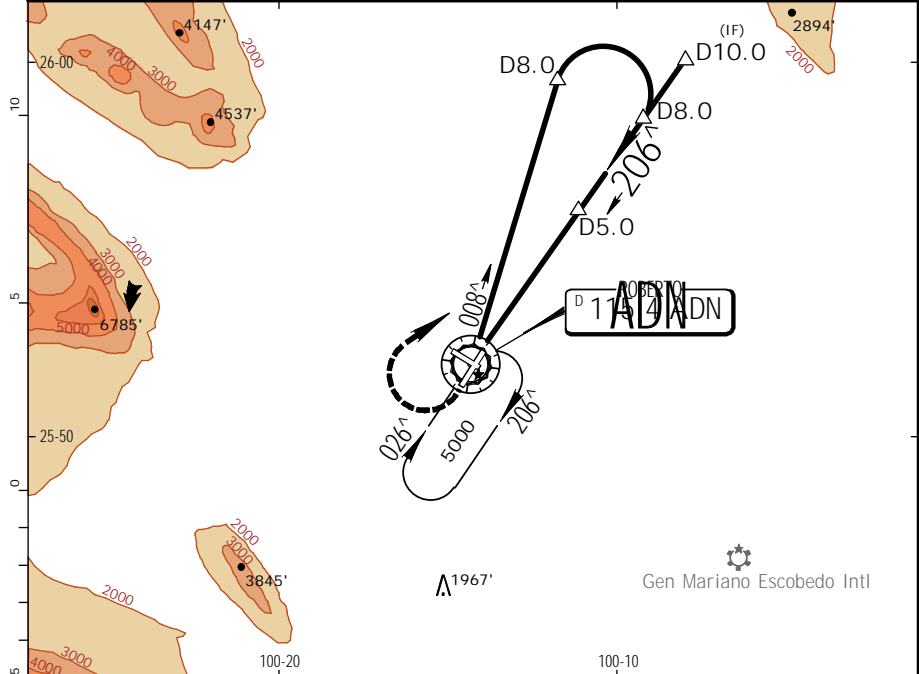


Gnd speed-Kts	70	90	100	120	140	160				
GS	3.20 <sup>^</sup>	401	516	574	688	803	918			
MAP at VOR										

STRAIGHT-IN LANDING RWY20		CIRCLE-TO-LAND	
ILS DA(H) 1652' (200')	LOC (GS out) MDA(H) 1980' (528')	MDA(H)	
A	1	90	2040'(564')-1
B	1	120	2040'(564')-1
C	1 1/2	140	2040'(564')-1 1/2
D	1 1/2	165	2040'(564')-2
ALL Non Skd	1702' (250')-1 1/4	1 1/4	

MMAN/NTR DEL NORTE INTL  
 JEPPESEN 16 NOV 07 (23-1)  
 MONTERREY, MEXICO  
 VOR DME 1 Rwy 20

* ATIS 127.55		MONTERREY Approach (R) 119.75 121.4		* DEL NORTE Tower 118.6	
VOR ADN 115.4	Final Apch Crs 206 <sup>^</sup>	Minimum Alt D5.0 3100' (1624')	MDA(H) 1980' (504')	Apt Elev 1476'	
MISSED APCH: Climbing RIGHT turn to intercept ADN VOR R-008 outbound and proceed on the approach track to the minimum holding altitude.					
Alt Set: MB (IN on req) Apt Elev: 53 MB Trans level: FL 195 Trans alt: 18500'				MSA ADN VOR	



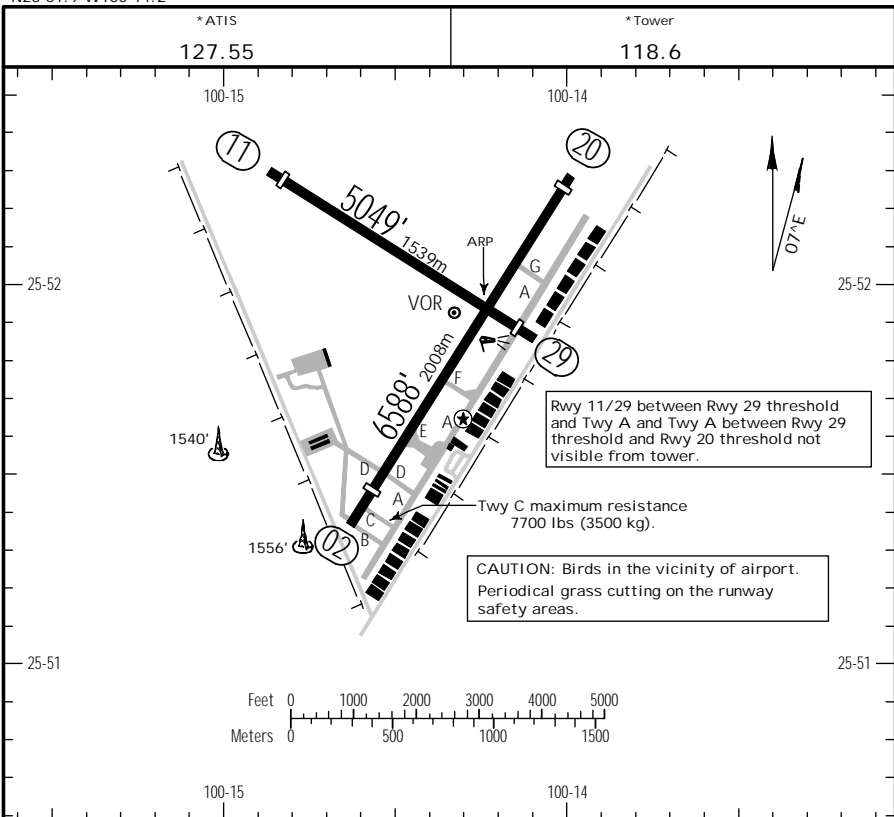
MAP at VOR					

STRAIGHT-IN LANDING RWY20		CIRCLE-TO-LAND	
MDA(H) 1980' (504')		MDA(H)	
A	1	90	2040' (564')-1
B	1	120	2040' (564')-1
C	1 1/2	140	2040' (564')-1 1/2
D	1 1/2	165	2040' (564')-2

MMAN/NTR  
 Apt Elev 1476'  
 N25 51.9 W100 14.2

JEPPESEN  
 16 NOV 07 (21-1)

MONTERREY, MEXICO  
 DEL NORTE INTL



Rwy 11/29 between Rwy 29 threshold and Twy A and Twy A between Rwy 29 threshold and Rwy 20 threshold not visible from tower.

Twy C maximum resistance 7700 lbs (3500 kg).  
 CAUTION: Birds in the vicinity of airport. Periodical grass cutting on the runway safety areas.

ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS		TAKE-OFF	WIDTH
		Threshold	Landing Beyond		
02	MIRL AVASI (angle 3.0°)	5932' 1808m		6260' 1908m	148'
20	MIRL PAPI-L (angle 3.0°)	6362' 1939m		5932' 1808m	45m
11		4787' 1459m		4715' 1437m	148'
29		4715' 1437m		4787' 1459m	45m

TAKE-OFF & DEPARTURE PROCEDURE

	RWYS 02, 11, 20		Rwy 29
			DAY
1 & 2 Eng	300-1		VFR
3 & 4 Eng	200-1/2		

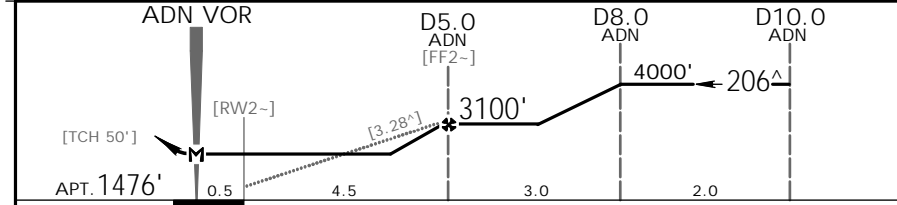
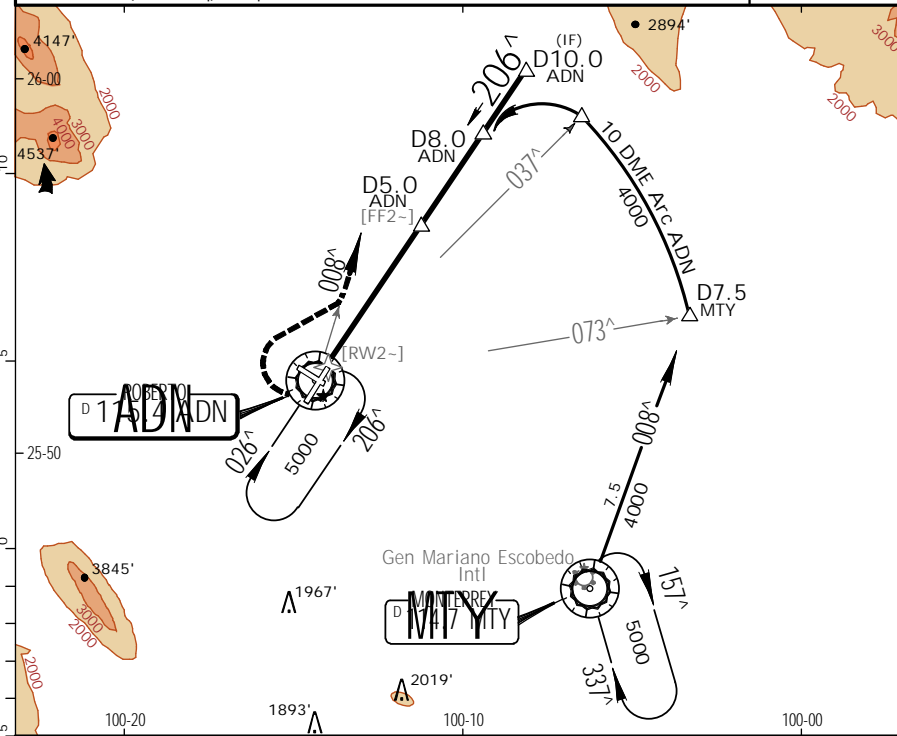
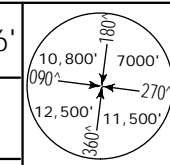
DEPARTURE PROCEDURE: Rwy 02, climb on ADN VOR R-025 with a teardrop turn to the LEFT within 10 NM to ADN VOR, reach ADN VOR at the MCA corresponding to MTY VOR, or in accordance to ATC instructions. Rws 20, 11/29 VFR.

MMAN/NTR  
 DEL NORTE INTL

JEPPESEN  
 16 NOV 07 (23-2)

MONTERREY, MEXICO  
 VOR DME 2 Rwy 20

* ATIS	MONTERREY Approach (R)		* DEL NORTE Tower
127.55	119.75	121.4	118.6
VOR ADN 115.4	Final Apch Crs 206°	Minimum Alt D5.0 ADN 3100' (1624')	MDA(H) 1980' (504')
			Apt Elev 1476'
MISSED APCH: Turn RIGHT to intercept ADN VOR R-008 outbound and proceed on VOR DME 1 Rwy 20 approach track to the minimum holding altitude.			
Alt Set: MB (1IN on req)		Apt Elev: 53 MB	Trans level: FL 195
		Trans alt: 18500'	MSA ADN VOR



Gnd speed-Kts	70	90	100	120	140	160
Descent angle [3.28°]	406	522	580	696	813	929

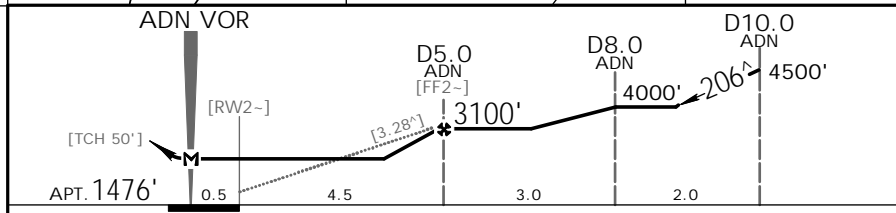
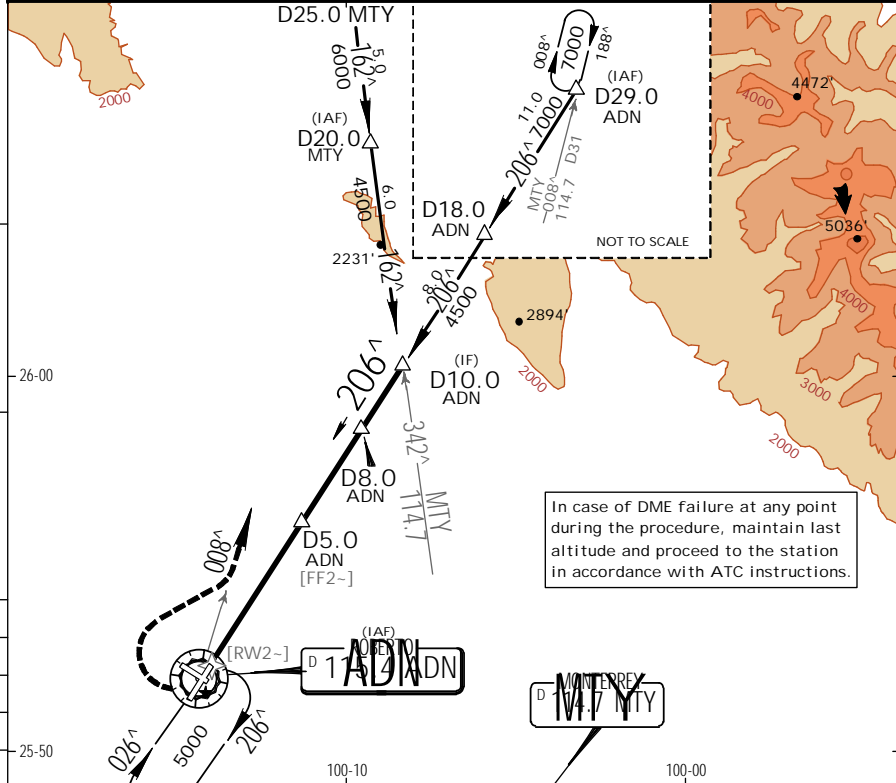
A	STRAIGHT-IN LANDING RWY 20		CIRCLE-TO-LAND	
	MDA(H)	1980' (504')	MDA(H)	
B	1		2040(564')-1	
C	1 1/2		2040(564')-1 1/2	
D			2040(564')-2	

MMAN/NTR  
 DEL NORTE INTL

JEPPESEN  
 16 NOV 07 (23-3)

MONTERREY, MEXICO  
 VOR DME 3 Rwy 20

* ATIS 127.55		MONTERREY Approach (R) 119.75 121.4		* DEL NORTE Tower 118.6
VOR ADN 115.4	Final Apch Crs 206 <sup>^</sup>	Minimum Alt D5.0 ADN 3100' (1624')	MDA(H) 1980' (504')	Apt Elev 1476'
MISSED APCH: Climbing RIGHT turn to intercept ADN VOR R-008 outbound and proceed on VOR DME 1 Rwy 20 approach track to the minimum holding altitude.				
Alt Set: MB (IN on req) Apt Elev: 53 MB Trans level: FL 195 Trans alt: 18500' MSA ADN VOR				



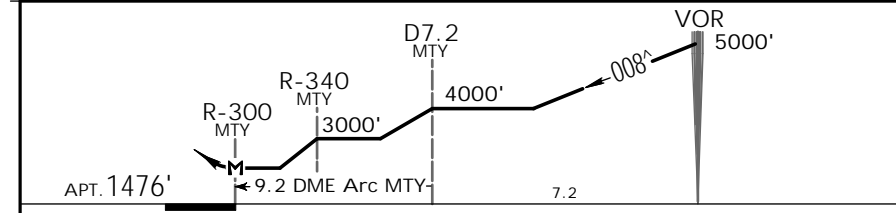
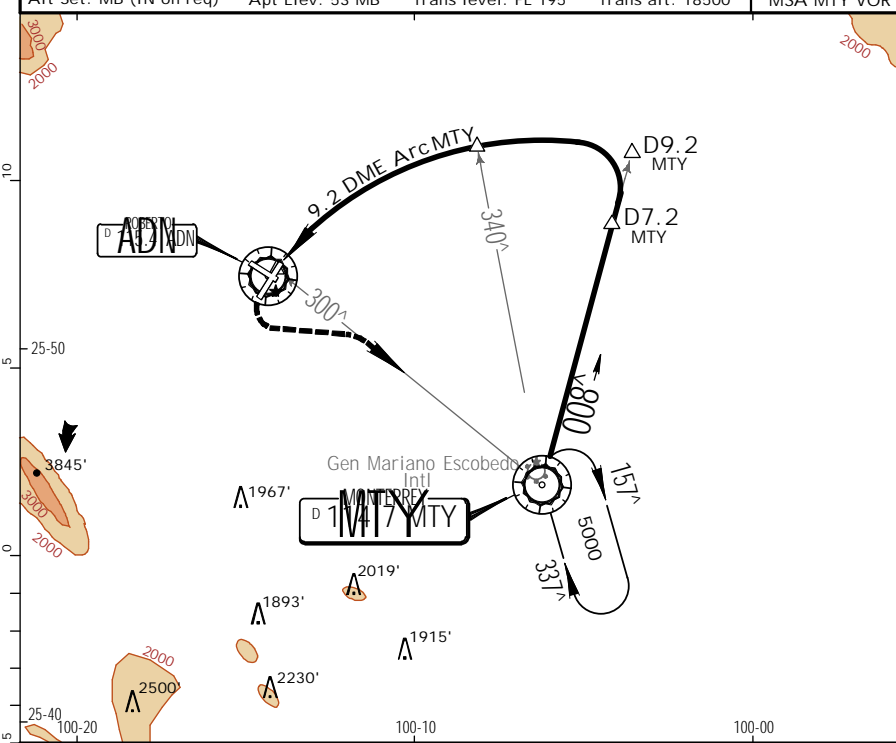
Gnd speed-Kts	70	90	100	120	140	160	PAPI-L	RT	ADN 115.4 R-008	
Descent angle [3.28°]	406	522	580	696	813	929				
MAP at VOR										
STRAIGHT-IN LANDING RWY20 MDA(H) 1980' (504')					CIRCLE-TO-LAND MDA(H)					
A	1					90	2040'(564')-1			
B	1					120	2040'(564')-1			
C	1½					140	2040'(564')-1½			
D	1½					165	2040'(564')-2			

MMAN/NTR  
 DEL NORTE INTL

JEPPESEN  
 16 NOV 07 (23-4)

MONTERREY, MEXICO  
 VOR DME Rwy 20

* ATIS 127.55		MONTERREY Approach (R) 119.75 121.4		* DEL NORTE Tower 118.6
VOR MTY 114.7	Final Apch Crs Refer to Planview	No FAF	MDA(H) 2040' (564')	Apt Elev 1476'
MISSED APCH: Climbing LEFT turn to intercept MTY VOR R-300 inbound and return to MTY VOR to the minimum holding altitude.				
Alt Set: MB (IN on req) Apt Elev: 53 MB Trans level: FL 195 Trans alt: 18500' MSA MTY VOR				



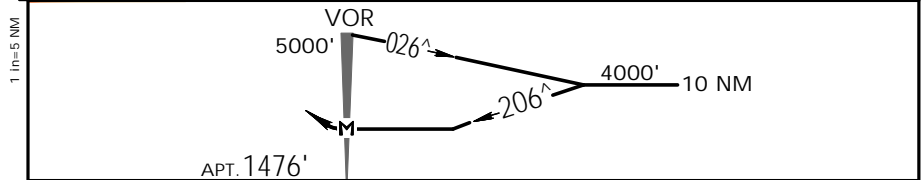
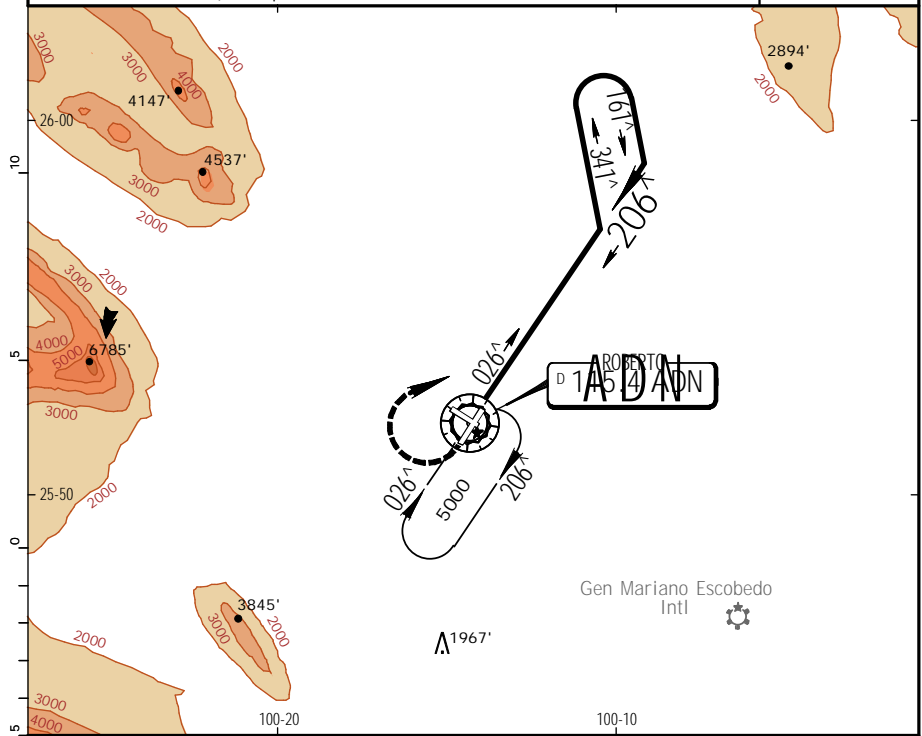
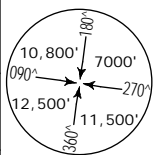
MAP at R-300 MTY		PAPI-L	LT	MTY 114.7 R-300	
STRAIGHT-IN LANDING RWY20 MDA(H) 2040' (564')				CIRCLE-TO-LAND MDA(H)	
A	1			90	2100'(624')-1
B	1			120	2100'(624')-1
C	1½			140	2100'(624')-1½
D	1¾			165	2100'(624')-2

MMAN/NTR  
 DEL NORTE INTL

JEPPESEN  
 16 NOV 07 (23-5)

MONTERREY, MEXICO  
 VOR Rwy 20

* ATIS 127.55		MONTERREY Approach (R) 119.75 121.4		* DEL NORTE Tower 118.6	
VOR ADN 115.4	Final Apch Crs 206 <sup>^</sup>	No FAF	MDA(H) 2040' (564')	Apt Elev 1476'	
MISSED APCH: Turn RIGHT to intercept ADN VOR R-026 outbound and proceed on the approach track to the minimum holding altitude.					
Alt Set: MB (IN on req) Apt Elev: 53 MB Trans level: FL 195 Trans alt: 18500'				MSA ADN VOR	



MAP at VOR		PAPI-L	RT	ADN 115.4 R-026
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STRAIGHT-IN LANDING RWY20		CIRCLE-TO-LAND	
MDA(H) 2040' (564')		MDA(H)	
A	1	Max Kts 90	2040'(564')-1
B	1 1/2	120	2040'(564')-1 1/2
C	1 3/4	140	2040'(564')-2
D	1 3/4	165	2040'(564')-2

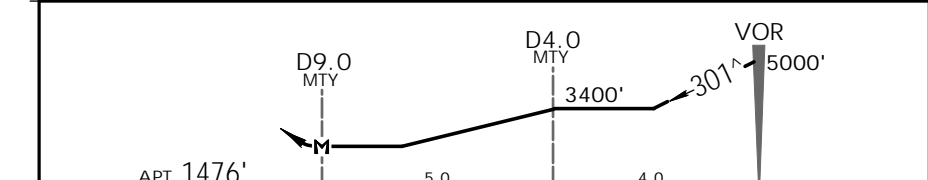
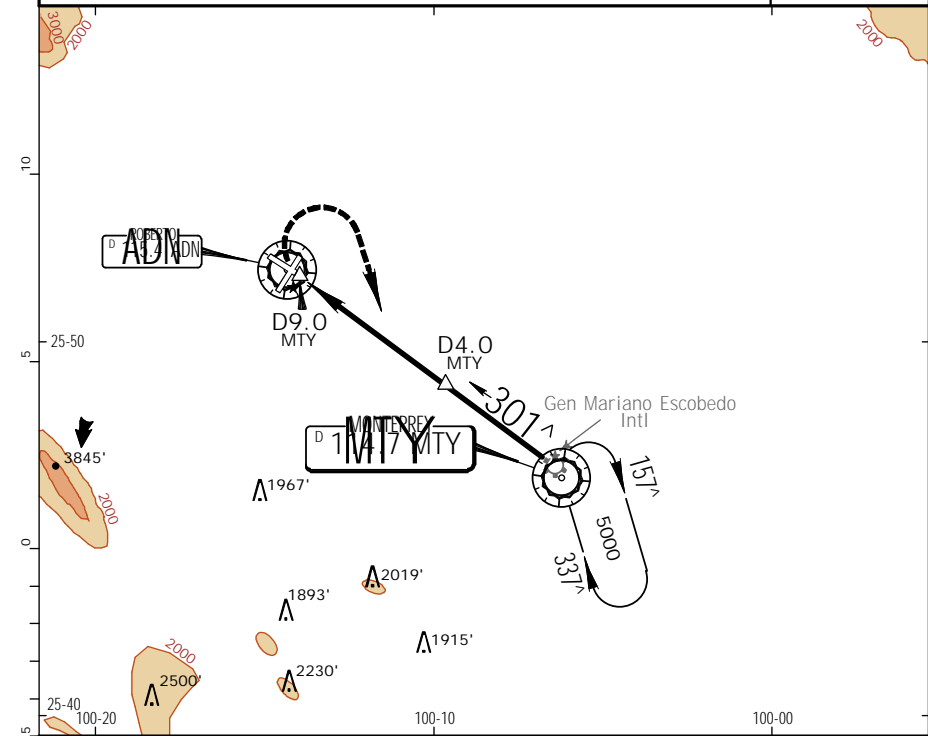
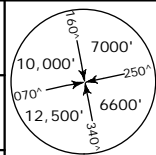
MMAN/NTR  
 DEL NORTE INTL

JEPPESEN  
 16 NOV 07 (23-6)

CAT A, B & C

MONTERREY, MEXICO  
 VOR DME Rwy 29

* ATIS 127.55		MONTERREY Approach (R) 119.75 121.4		* DEL NORTE Tower 118.6	
VOR MTY 114.7	Final Apch Crs 301 <sup>^</sup>	No FAF	MDA(H) (CONDITIONAL) 1980' (504')	Apt Elev 1476'	
MISSED APCH: Climbing RIGHT turn to intercept MTY VOR R-301 inbound and return to MTY VOR to the minimum holding altitude.					
Alt Set: MB (IN on req) Apt Elev: 53 MB Trans level: FL 195 Trans alt: 18500'				MSA MTY VOR	



MAP at D9.0 MTY		PAPI-L	RT	MTY 114.7 R-301
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STRAIGHT-IN LANDING RWY29		CIRCLE-TO-LAND	
MDA(H) 1980' (504')		MDA(H)	
A	1	Max Kts 90	2040'(564')-1
B	1 1/2	120	2040'(564')-1 1/2
C	1 3/4	140	2040'(564')-2
D	NOT APPLICABLE	165	NOT APPLICABLE