

MNMG/MGA

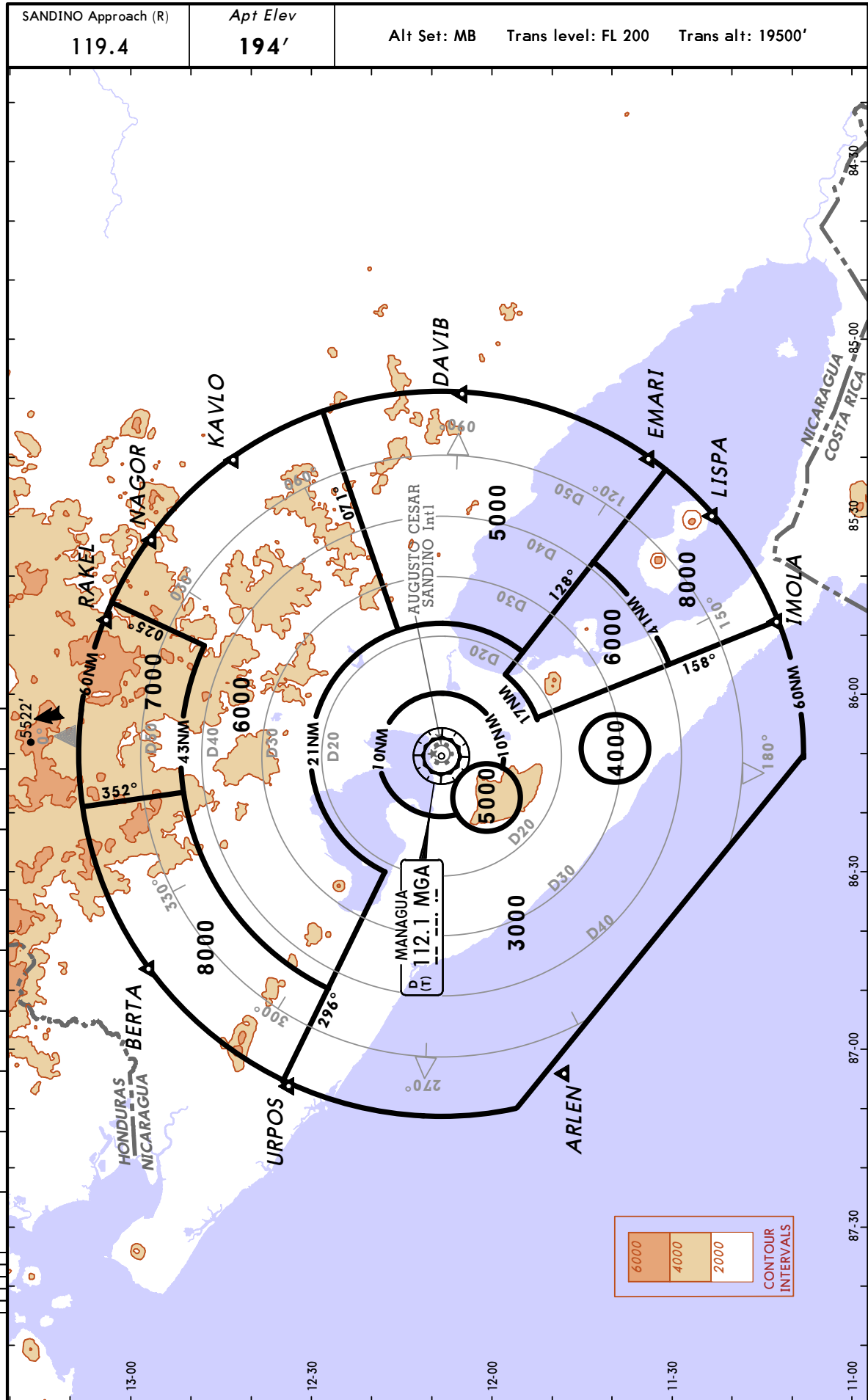


MANAGUA, NICARAGUA

AUGUSTO CESAR SANDINO INTL

10-1R 21 DEC 12

RADAR MINIMUM ALTITUDES

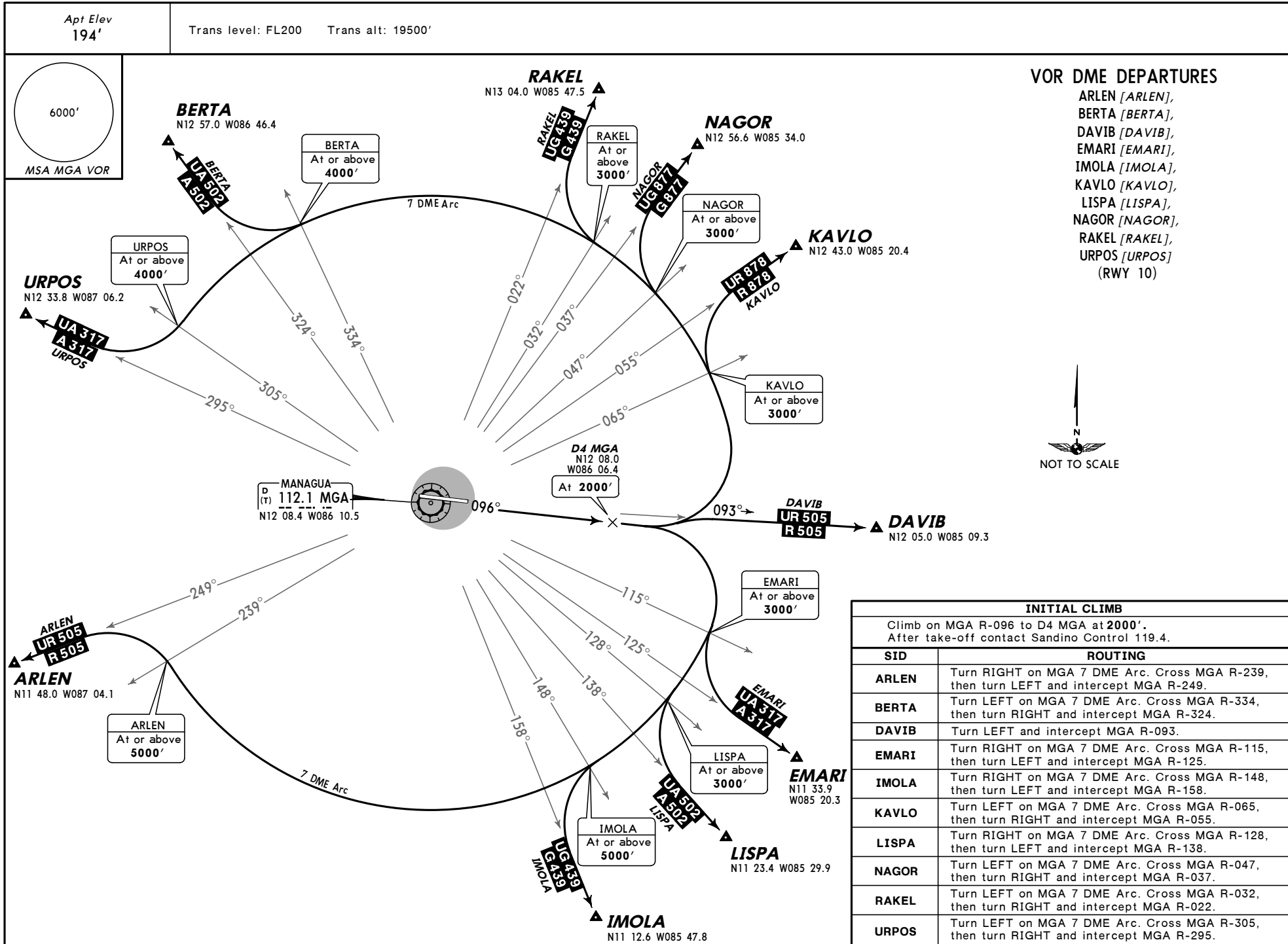


CHANGES: Chart revised.

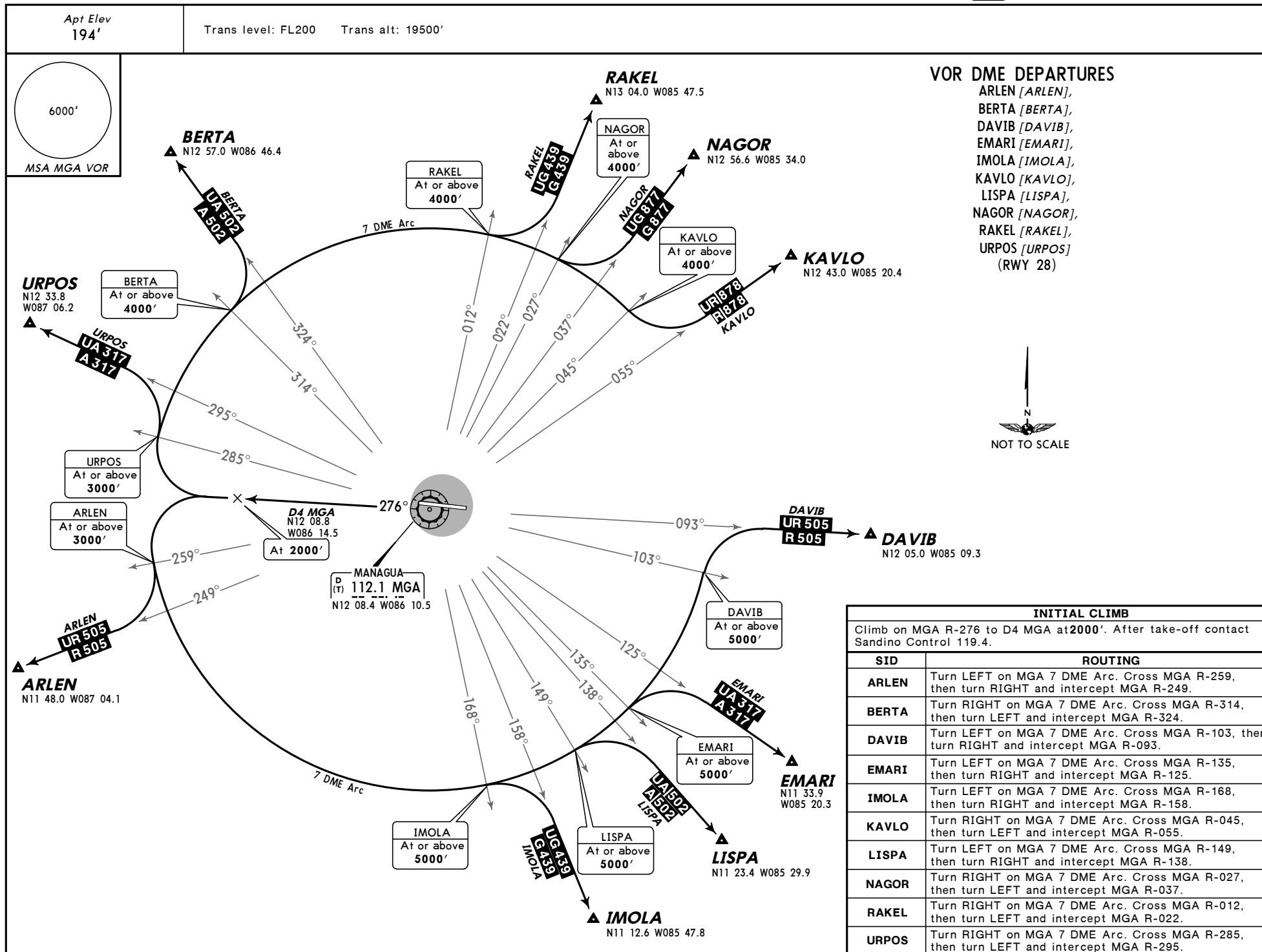
MNMG/MGA
 AUGUSTO CESAR SANDINO INTL

JEPPESEN
 21 DEC 12 10-3

**MANAGUA,
 NICARAGUA**
 SID

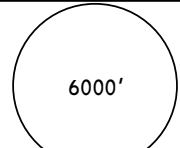


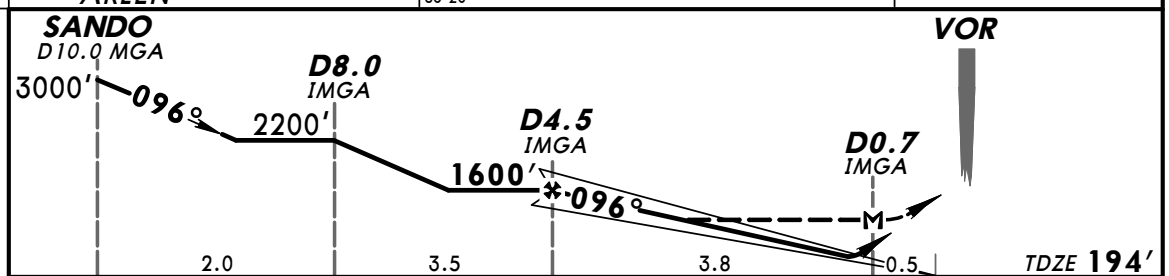
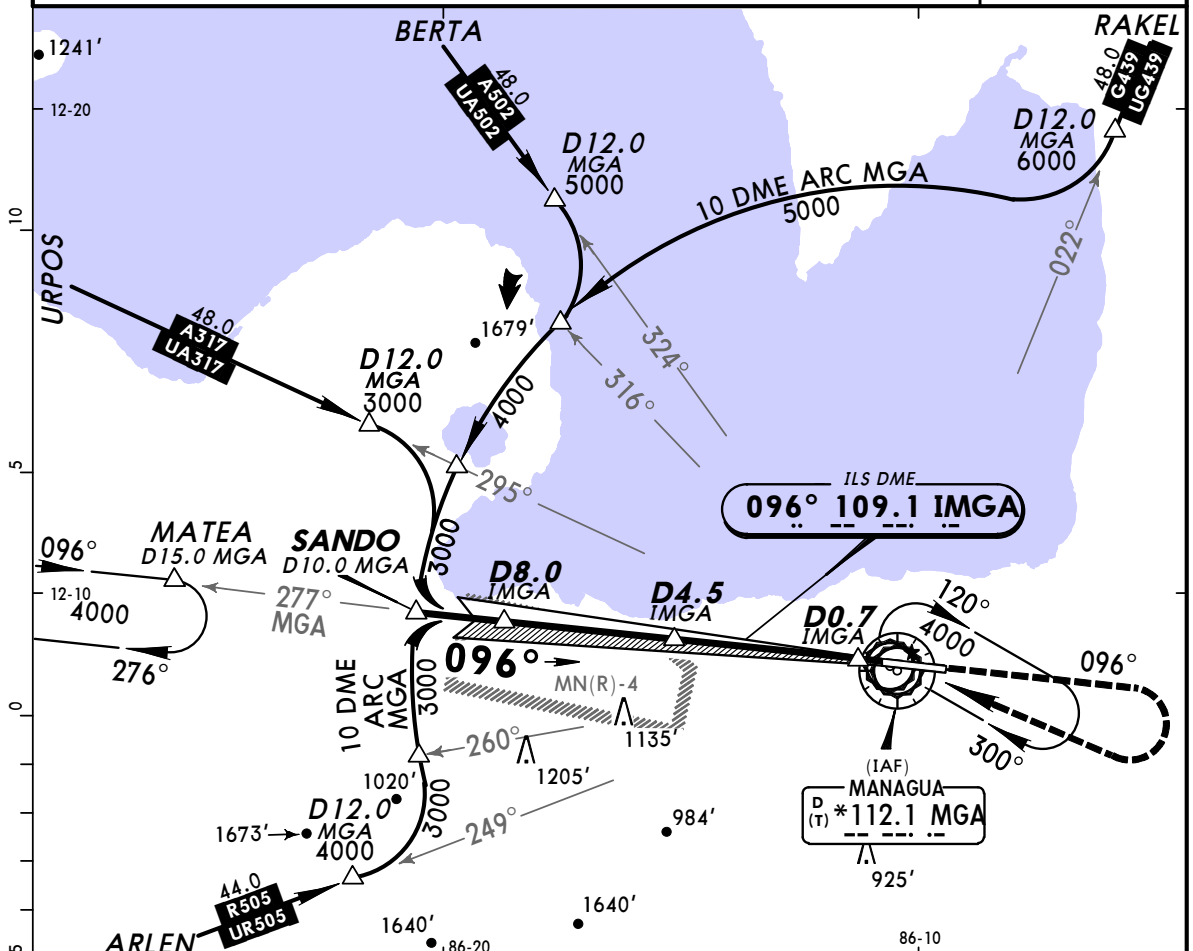
CHANGES: Initial climb, procedure bearings.




CHANGES: Initial climb, procedure bearings.

MNMG/MGA **JEPPESEN MANAGUA, NICARAGUA**
AUGUSTO CESAR SANDINO INTL 29 MAR 13 (11-1) **ILS 1 Rwy 10**

SANDINO Approach (R) 119.4		SANDINO Radio (FIS) 126.9		SANDINO Tower 118.1		Ground 121.9		
LOC IMGA 109.1		Final Apch Crs 096°		Minimum Alt D4.5 IMGA 1600' (1406')		ILS DA(H) 600' (406')		
				Apt Elev 194'				
				TDZE 194'				
MISSED APCH: Climb to 2500' outbound on MGA VOR R-096 then turn RIGHT to MGA VOR and follow ATC instructions.							MSA MGA VOR	
Alt Set: MB		TDZ Elev: 7 MB		Trans level: FL 200		Trans alt: 19500'		
1. DME required.								



Gnd speed-Kts	70	90	100	120	140	160	PAPI-L	2500' MGA on 112.1 R-096		MGA 112.1	
GS	3.10°	384	494	548	658	768					878
MAP at D0.7 IMGA or D4.5 IMGA to MAP	3.8	3:15	2:32	2:17	1:54	1:38					1:26

STRAIGHT-IN LANDING RWY 10		CEILING REQUIRED		CIRCLE-TO-LAND	
ILS DA(H) 600' (406')		LOC (GS out) MDA(H) 800' (606')			
CEILING-VISIBILITY				Max Kts	MDA(H) CEIL-VIS
A				90	800' (606') 700' - 1600m
B				120	
C	450' - 1200m	700' - 1600m		140	1230' (1036') 1100' - 4800m
D				165	1440' (1246') 1300' - 4800m

MNMG/MGA

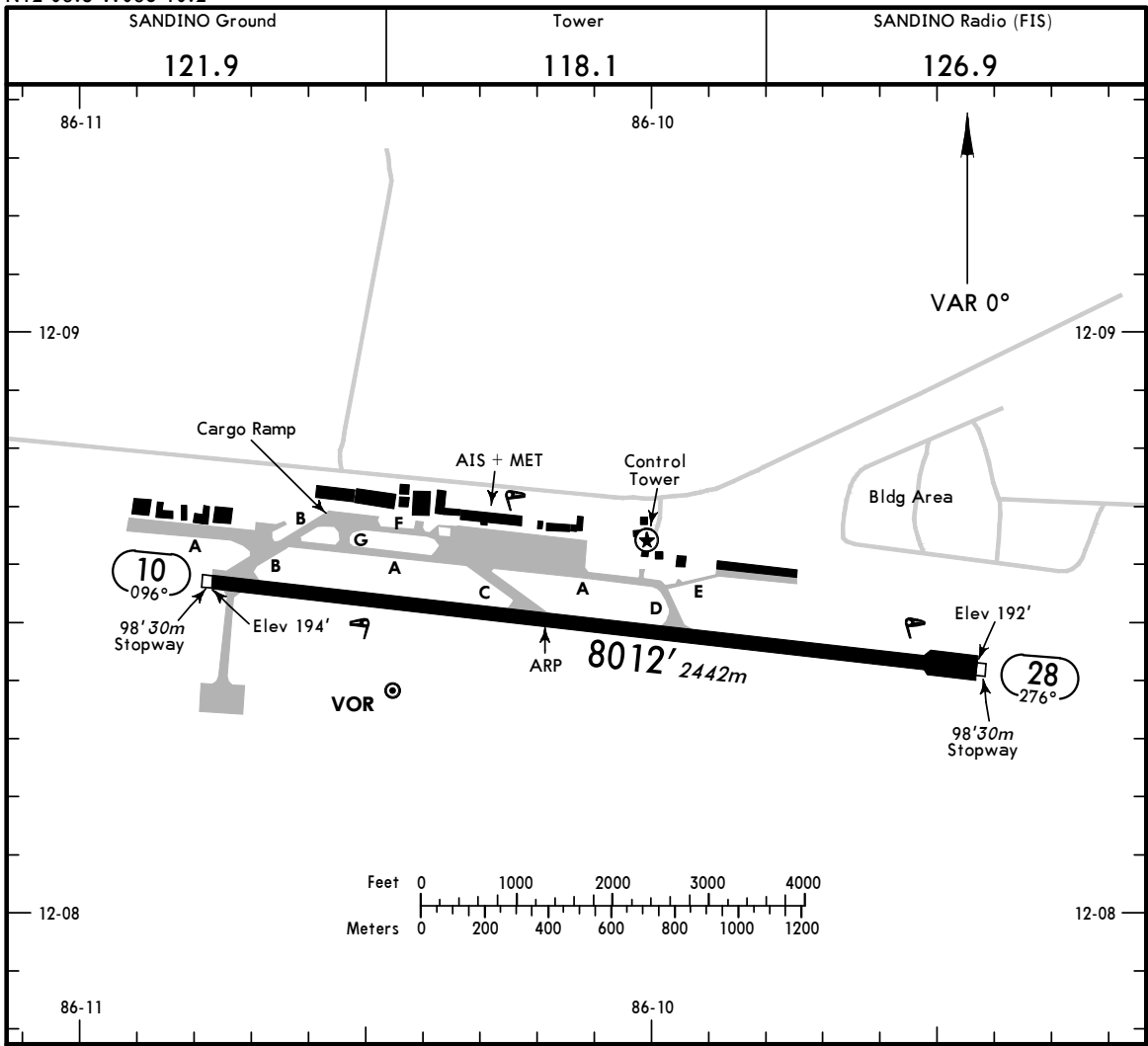
Apt Elev **194'**
 N12 08.5 W086 10.2



29 MAR 13 (11-1)

MANAGUA, NICARAGUA

AUGUSTO CESAR SANDINO INTL



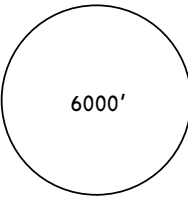
ADDITIONAL RUNWAY INFORMATION

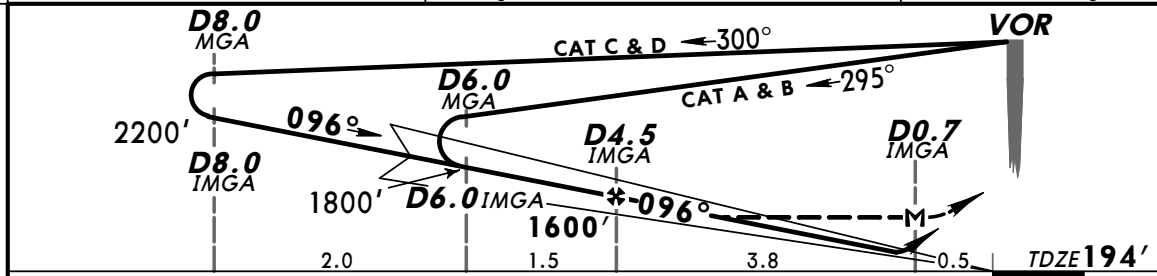
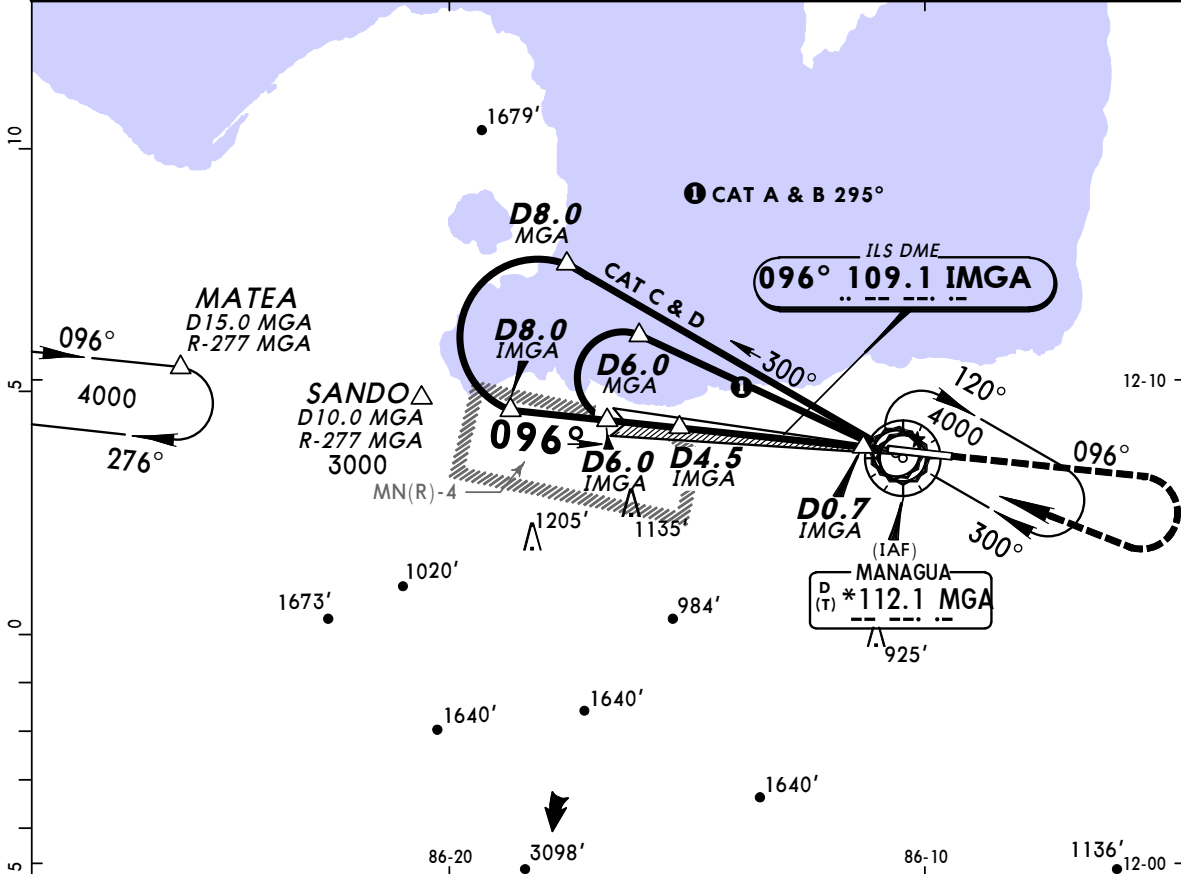
RWY		USABLE LENGTHS			WIDTH
		Threshold	Glide Slope	TAKE-OFF	
10	RL PAPI-L		6964' 2123m		148'
28	RL				45m

TAKE-OFF

	Rwy 28	Rwy 10
1 & 2 Eng	620' - 3.2 km	800' - 3.2 km
3 & 4 Eng		

MNMG/MGA **JEPPESEN MANAGUA, NICARAGUA**
AUGUSTO CESAR SANDINO INTL 29 MAR 13 (11-2) **ILS 2 Rwy 10**

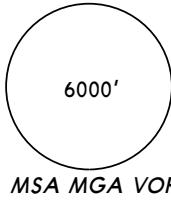
SANDINO Approach (R) 119.4		SANDINO Radio (FIS) 126.9		SANDINO Tower 118.1		Ground 121.9		
LOC IMGA 109.1	Final Apch Crs 096°	Minimum Alt D4.5 IMGA 1600' (1406')	ILS DA(H) 600' (406')	Apt Elev 194' TDZE 194'		 6000' MSA MGA VOR		
MISSED APCH: Climb to 2500' outbound on MGA VOR R-096, then turn RIGHT to MGA VOR and follow ATC instructions.								
Alt Set: MB		TDZ Elev: 7 MB		Trans level: FL 200				Trans alt: 19500'
1. DME required.								

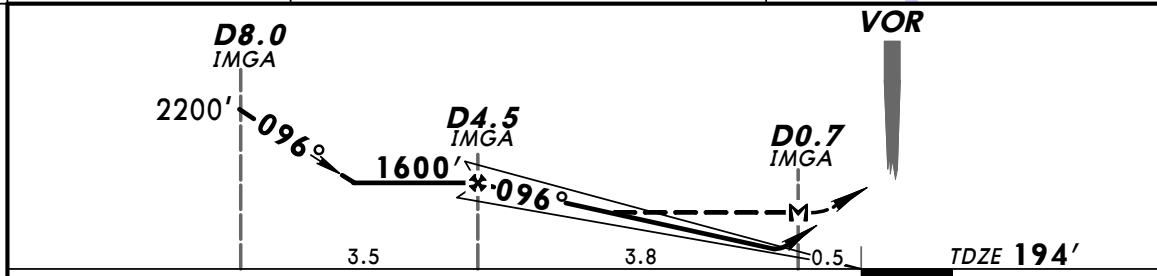
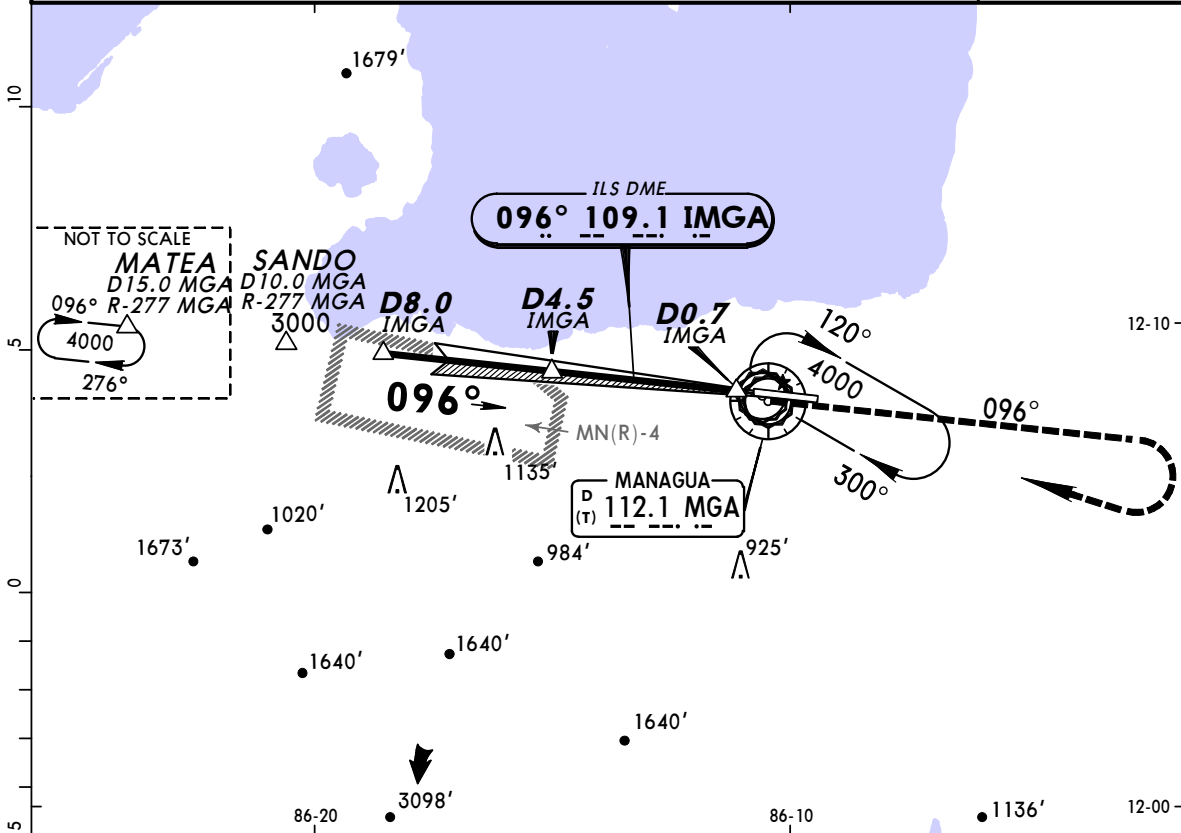


Gnd speed-Kts	70	90	100	120	140	160	PAPI-L	2500' on MGA R-096	RT	MGA 112.1	
GS	3.10°	384	494	548	658	768					878
MAP at D0.7 IMGA or D4.5 IMGA to MAP 3.8		3:15	2:32	2:17	1:54	1:38					1:26

STRAIGHT-IN LANDING RWY 10		CEILING REQUIRED		CIRCLE-TO-LAND	
ILS DA(H) 600' (406')		LOC (GS out) MDA(H) 800' (606')		Max Kts	MDA(H) — CEIL-VIS —
CEILING-VISIBILITY				90	800'(606') 700' - 1600m
				120	
				140	1230'(1036') 1100' - 4800m
				165	1440'(1246') 1300' - 4800m

MNMG/MGA **JEPPESEN MANAGUA, NICARAGUA**
AUGUSTO CESAR SANDINO INTL 29 MAR 13 (11-3) **ILS or LOC Rwy 10**

SANDINO Approach (R) 119.4		SANDINO Radio (FIS) 126.9		SANDINO Tower 118.1		Ground 121.9	
LOC IMGA 109.1		Final Apch Crs 096°		Minimum Alt D4.5 IMGA 1600' (1406')		ILS DA(H) 600' (406')	
				Apt Elev 194'			
				TDZE 194'			
MISSED APCH: Climb to 2500' outbound on MGA VOR R-096, then turn RIGHT to MGA VOR and follow ATC instructions.							
Alt Set: MB TDZ Elev: 7 MB Trans level: FL 200 Trans alt: 19500' 1. By ATC when MGA VOR out of service, after an operation with radar vectors, or flying direct to SANDO.						MSA MGA VOR	

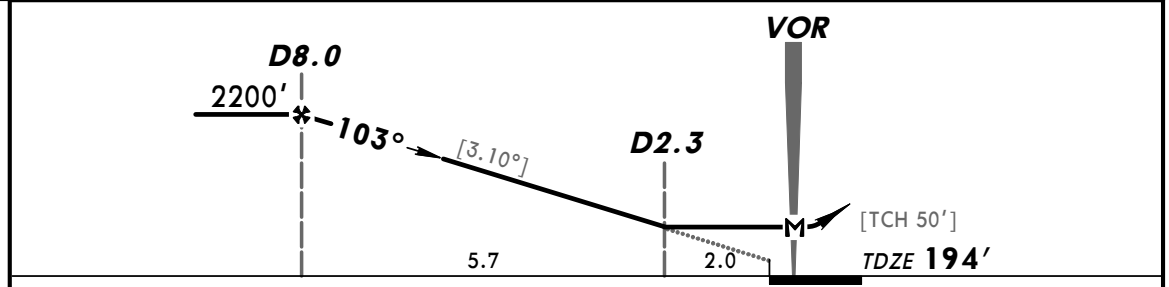
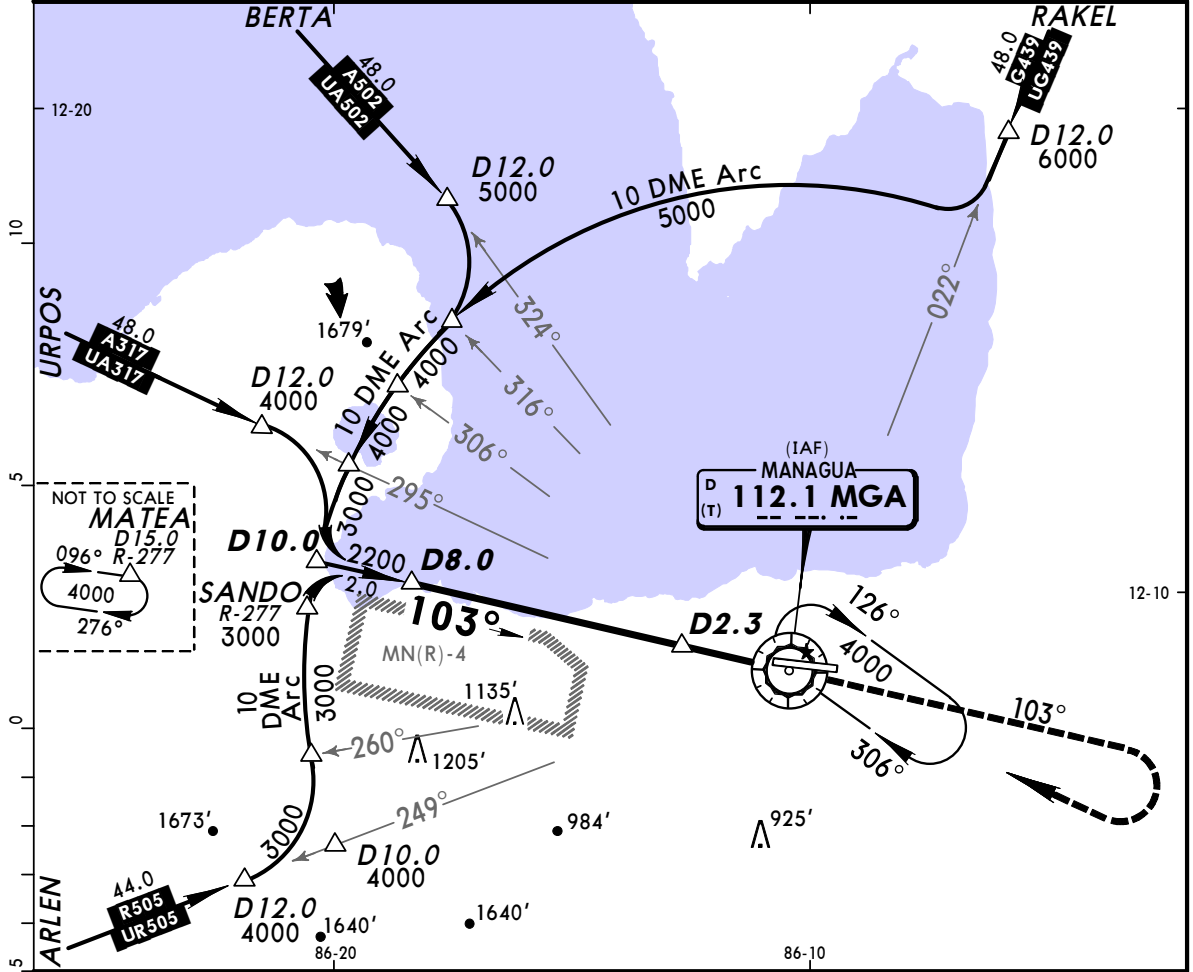


Gnd speed-Kts	70	90	100	120	140	160	PAPI-L	2500' on MGA R-096	RT	MGA 112.1	
GS	3.10°	384	494	548	658	768					878
MAP at D0.7 IMGA or D4.5 IMGA to MAP 3.8	3:15	2:32	2:17	1:54	1:38	1:26					

STRAIGHT-IN LANDING RWY 10		CEILING REQUIRED		CIRCLE-TO-LAND	
ILS DA(H) 600' (406')		LOC (GS out) MDA(H) 800' (606')			
CEILING-VISIBILITY				Max Kts	MDA(H) — CEIL-VIS —
A				90	800'(606') 700' - 1600m
B				120	
C	450' - 1200m		700' - 1600m	140	1230'(1036') 1100' - 4800m
D				165	1440'(1246') 1300' - 4800m

MNMG/MGA **JEPPESEN MANAGUA, NICARAGUA**
AUGUSTO CESAR SANDINO INTL 29 MAR 13 (13-1) **VOR DME 1 Rwy 10**

SANDINO Approach (R) 119.4		SANDINO Radio (FIS) 126.9		SANDINO Tower 118.1		Ground 121.9	
VOR MGA 112.1	Final Apch Crs 103°	Minimum Alt D8.0 2200' (2006')	MDA(H) 800' (606')	Apt Elev 194' TDZE 194'		6000'	
MISSED APCH: Climb outbound on MGA VOR R-103 to 2500', then turn RIGHT to MGA VOR and follow ATC instructions.							
Alt Set: MB		TDZ Elev: 7 MB		Trans level: FL 200		Trans alt: 19500'	

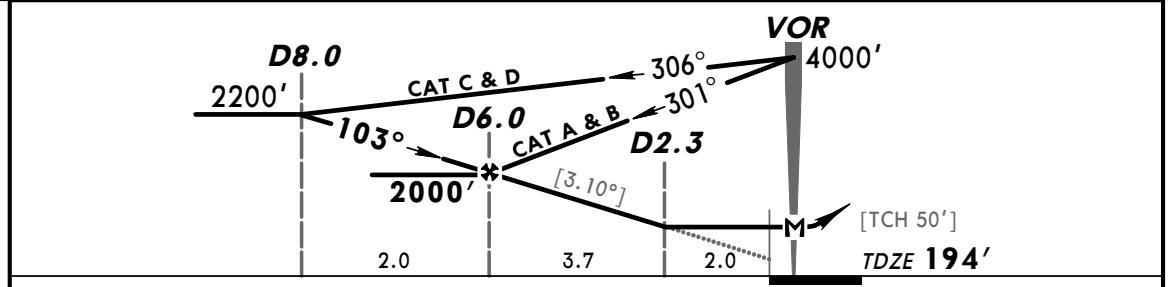
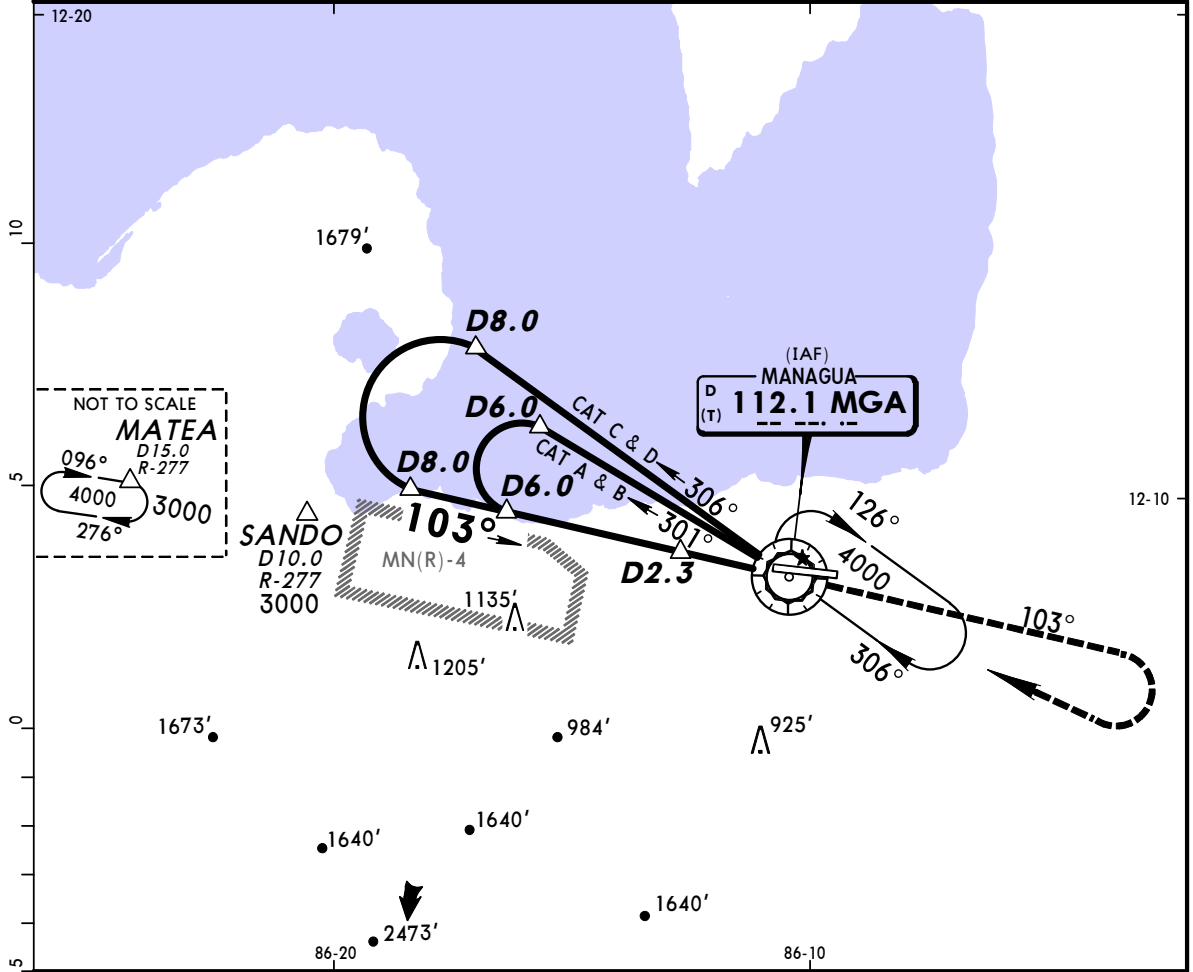


Gnd speed-Kts	70	90	100	120	140	160	PAPI-L	2500'	MGA on 112.1 R-103	RT	MGA 112.1
Descent Angle [3.10°]	384	494	548	658	768	878					
MAP at VOR											

STRAIGHT-IN LANDING RWY 10				CEILING REQUIRED				CIRCLE-TO-LAND			
MDA(H) 800' (606')				Max Kts				MDA(H) CEIL-VIS			
CEILING-VISIBILITY											
A	700' - 1600m			90	800' (606')			800' - 1600m			
B	700' - 2800m			120	1230' (1036')			1100' - 4800m			
C	700' - 3200m			140	1440' (1246')			1300' - 4800m			
D				165							

MNMG/MGA **JEPPESEN MANAGUA, NICARAGUA**
AUGUSTO CESAR SANDINO INTL 29 MAR 13 **(13-2)** **VOR DME 2 Rwy 10**

SANDINO Approach (R) 119.4		SANDINO Radio (FIS) 126.9		SANDINO Tower 118.1		Ground 121.9	
VOR MGA 112.1		Final Apch Crs 103°		Minimum Alt D6.0 2000' (1806')		MDA(H) 800' (606')	
				Apt Elev 194'		TDZE 194'	
MISSED APCH: Climb outbound on MGA VOR R-103 to 2500', then turn RIGHT to MGA VOR and follow ATC instructions.							6000'
Alt Set: MB		TDZ Elev: 7 MB		Trans level: FL 200		Trans alt: 19500'	
							MSA MGA VOR

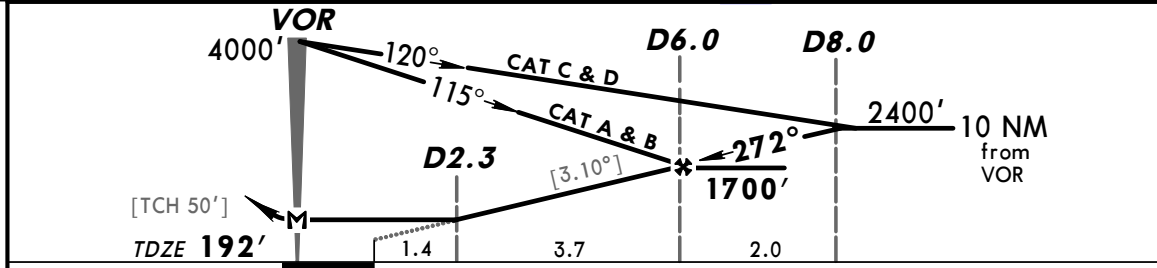
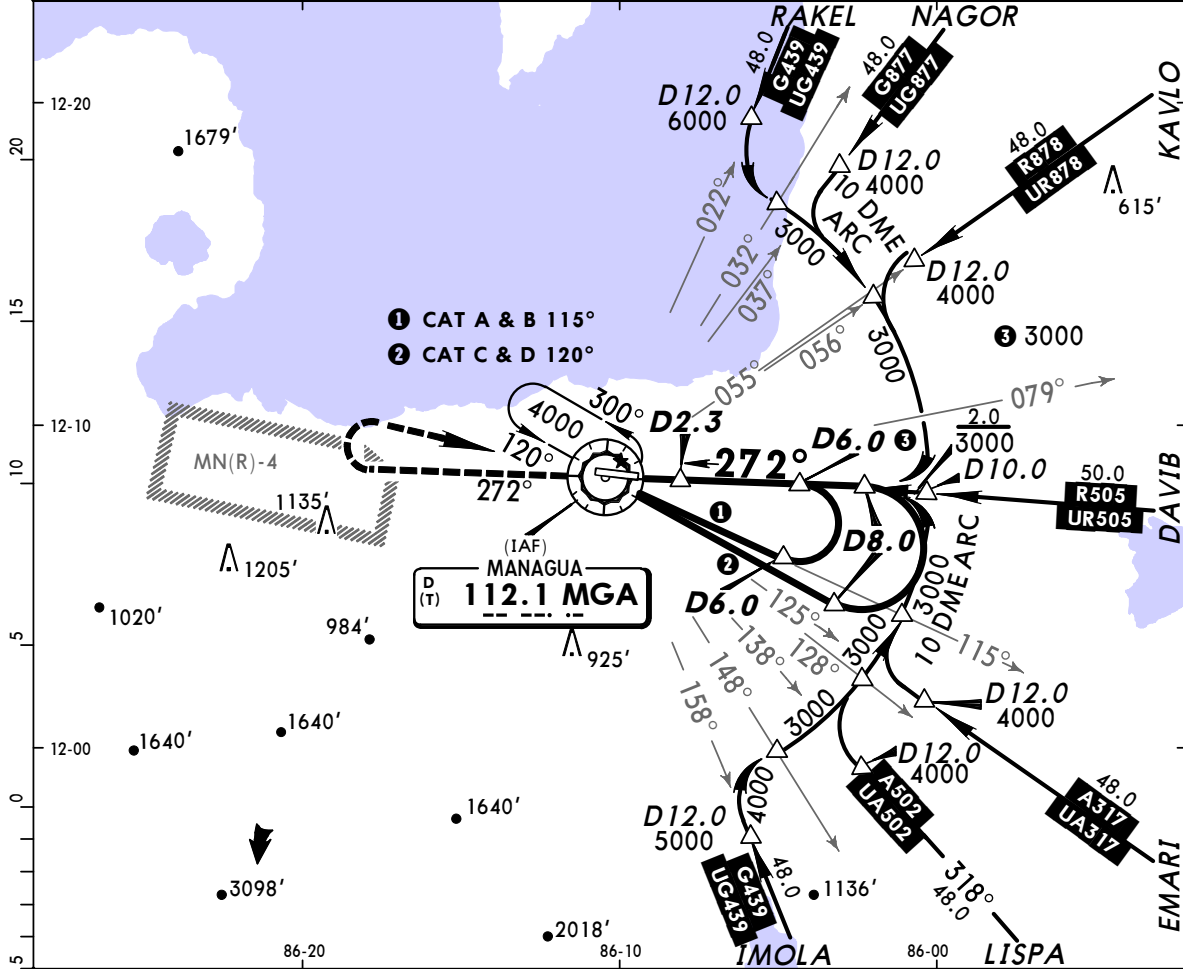


Gnd speed-Kts	70	90	100	120	140	160	PAPI-L	2500'	MGA on 112.1 R-103	RT	MGA 112.1
Descent Angle [3.10°]	384	494	548	658	768	878					
MAP at VOR											

STRAIGHT-IN LANDING RWY 10		CEILING REQUIRED		CIRCLE-TO-LAND	
MDA(H) 800' (606')					
CEILING-VISIBILITY		Max Kts		MDA(H) CEIL-VIS	
A	700' - 1600m	90		800' (606')	800' - 1600m
B	700' - 1600m	120		1230' (1036')	1100' - 4800m
C	700' - 2800m	140		1440' (1246')	1300' - 4800m
D	700' - 3200m	165			

MNMG/MGA **JEPPESEN MANAGUA, NICARAGUA**
AUGUSTO CESAR SANDINO INTL 29 MAR 13 **(13-3)** **VOR DME Rwy 28**

SANDINO Approach (R) 119.4		SANDINO Radio (FIS) 126.9		SANDINO Tower 118.1		Ground 121.9	
VOR MGA 112.1	Final Apch Crs 272°	Minimum Alt D6.0 1700' (1508')	MDA(H) 770' (578')	Apt Elev 194' TDZE 192'		6000'	
MISSED APCH: Climb outbound on MGA VOR R-272 to 2500', then turn RIGHT to MGA VOR and follow ATC instructions.							
Alt Set: MB		TDZ Elev: 7 MB		Trans level: FL 200		Trans alt: 19500'	
						MSA MGA VOR	



Gnd speed-Kts	70	90	100	120	140	160	2500'	MGA 112.1 R-272	RT	MGA 112.1
Descent Angle [3.10°]	384	494	548	658	768	878				
MAP at VOR										

STRAIGHT-IN LANDING RWY 28 CEILING REQUIRED		CIRCLE-TO-LAND	
MDA(H) 770' (578')		Max Kts	MDA(H) CEIL-VIS
A	600' - 1600m	90	900' (708') 800' - 1600m
B	600' - 2800m	120	1230' (1038') 1100' - 4800m
C	600' - 3200m	140	1440' (1248') 1300' - 4800m
D		165	