

NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Washington, D.C. 20594

Attachment 7 - Navigational Charts

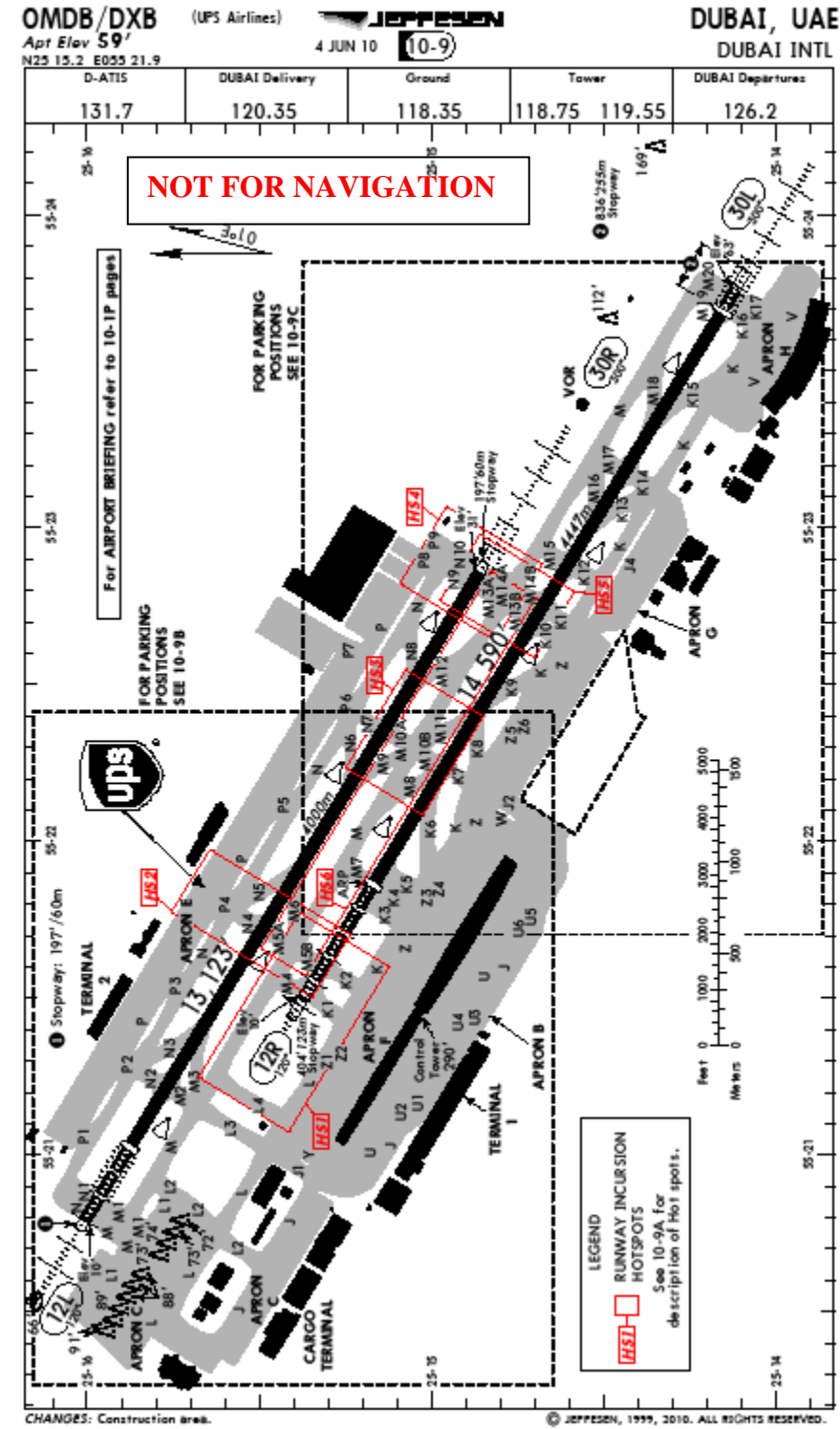
**OPERATIONS/HUMAN PERFORMANCE SUPPORT TO
THE U.S. ACCREDITED REPRESENTATIVE**

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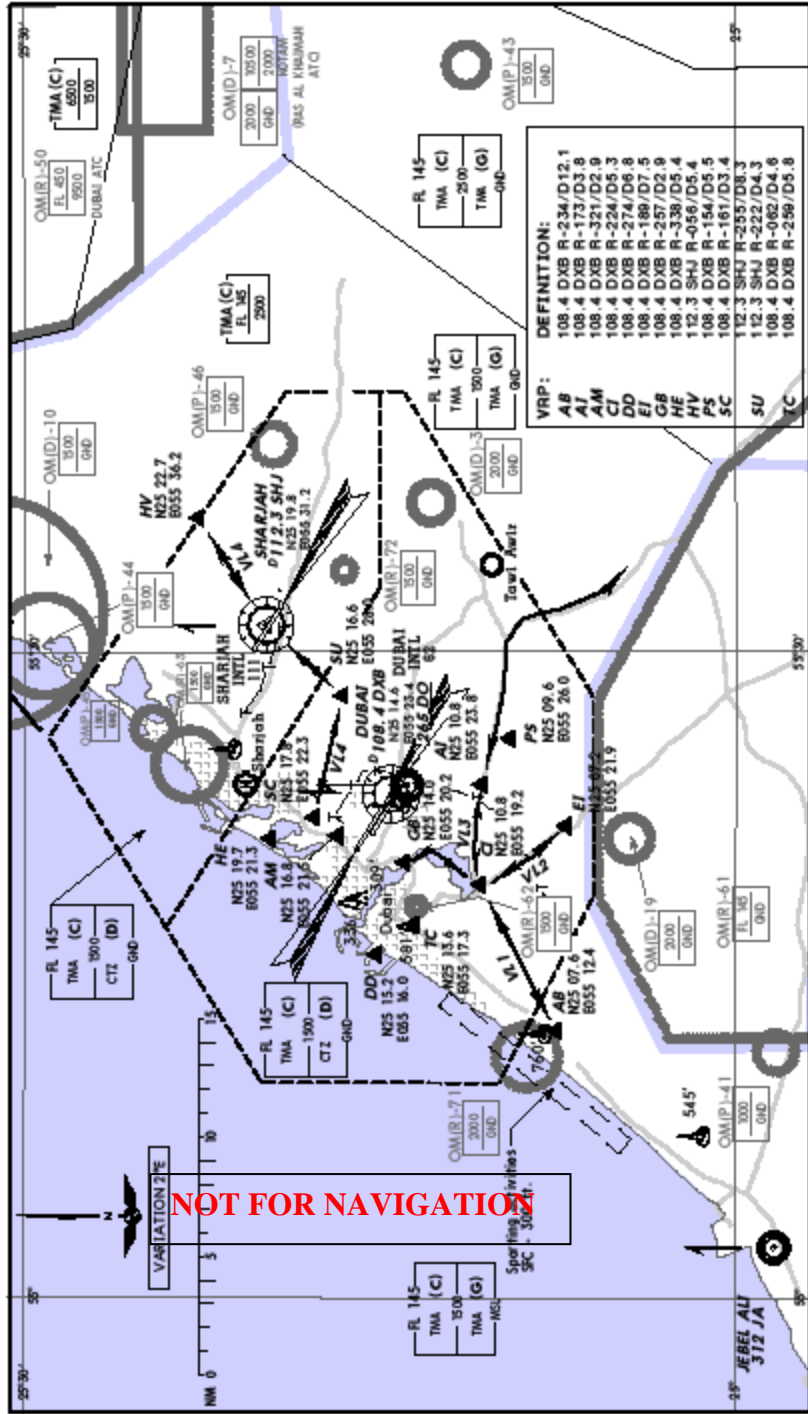
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A. Dubai International Airport (DXB)



ADDITIONAL RUNWAY INFORMATION																																																			
RWY			RVR	USABLE LENGTHS		WIDTH																																													
				LANDING BEYOND																																															
				Threshold	Glide Slope	TAKE-OFF																																													
12L	HIRL (60m) CL (75m) HIALS-II SFL TDZ REIL	①	RVR	11,811' 3600m	10.778' 3285m	②	197'																																												
30R				11,969' 3648m		③	60m																																												
① PAPI (angle 3.0°) ② TORA RWY 12L: <table border="0"> <tr> <td>From rwy head</td> <td>13,123' (4000m)</td> <td>③ TORA RWY 30R:</td> <td>From rwy head</td> <td>13,123' (4000m)</td> </tr> <tr> <td>twy M2/N2 int</td> <td>10,630' (3240m)</td> <td></td> <td>twy M12/N8 int</td> <td>11,188' (3410m)</td> </tr> <tr> <td>twy M3/N3 int</td> <td>9826' (2995m)</td> <td></td> <td>twy M10/N7 int</td> <td>9957' (3035m)</td> </tr> <tr> <td>twy M5/N4 int</td> <td>7349' (2240m)</td> <td></td> <td>twy M9/N6 int</td> <td>9170' (2795m)</td> </tr> <tr> <td>twy M6/N5 int</td> <td>6529' (1990m)</td> <td></td> <td></td> <td></td> </tr> </table>							From rwy head	13,123' (4000m)	③ TORA RWY 30R:	From rwy head	13,123' (4000m)	twy M2/N2 int	10,630' (3240m)		twy M12/N8 int	11,188' (3410m)	twy M3/N3 int	9826' (2995m)		twy M10/N7 int	9957' (3035m)	twy M5/N4 int	7349' (2240m)		twy M9/N6 int	9170' (2795m)	twy M6/N5 int	6529' (1990m)																							
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<div style="border: 1px solid black; padding: 5px; color: red; font-weight: bold; font-size: 1.2em;">NOT FOR NAVIGATION</div>																																																			
RUNWAY INCURSION HOT SPOTS (For information only, not to be construed as ATC instructions.)																																																			
[HS1] Confusion of TWYs M4 & L4 - There have been several RWY incursions on to RWY 12R at TWY M4 due to the confusion between the two when taxiing westbound on TWY M.																																																			
[HS2] N4 crossing North to South - Hot Spot area with history of RWY incursions. Pilots are to exercise caution when crossing RWY 12L for DEP RWY 12R.																																																			
[HS3] TWYs M10 & M11 - Several RWY incursions. TWY M11 permanently closed in 12 direction. TWY M10 - ARR ACFT shall not plan to cross RWY 12R as it blocks the primary Rapid Exit TWY for RWY 12L. TWY M11 stopbar shall be lit to ensure ACFT vacating RWY 12L via TWY M9 do not head straight onto RWY 12R (when stopbar is on associated CL lights are de-energized).																																																			
[HS4] RWY Holding Points M13A & M14A - Pilots are to be alert when given conditional clearances and to positively identify TFC BFR entering RWY 30R.																																																			
[HS5] RWY Holding Points M13B & M14B - Hot Spot area with history of RWY incursions. Pilots are to exercise caution when crossing RWY 30R for DEP RWY 30L.																																																			
[HS6] Confusion of TWY M with both RWYs 12 & 30 direction - Pilots are warned not to confuse TWY M with RWY 12R after crossing RWY 12L via TWY N4 and TWY M5 for DEP RWY 12R. Pilots are warned not to confuse TWY M with RWY 30R after crossing RWY 30L via TWY K10 and TWY M13 or TWY K11 for DEP RWY 30R.																																																			
JAK-OPS TAKE-OFF																																																			
All Rwys LVP must be in force																																																			
	RL, CL & mult. RVR req	RL & CL	RCLM (DAY only) or RL	RCLM (DAY only) or RL	NIL (DAY only)																																														
A																																																			
B	125m	150m	250m	400m	500m																																														
C																																																			
D	150m	200m	300m																																																
① Operators applying U.S. Ops Specs: CL required below 300m. ② For low visibility departures all RVR transmissometers of departure rwy shall be serviceable. If reported meteorological VIS > 150m TDZ RVR not required.																																																			
CHANGES: Minimums. © JEPPESSEN, 1999, 2010. ALL RIGHTS RESERVED.																																																			



CHANGES: Dubai VOR/DME; reporting points; tracks. © JEPPESSEN SANDERSON, INC., 1996, 2006. ALL RIGHTS RESERVED.

OMDB/DXB
DUBAI INTL

JEPPesen
4 JUN 10 (11-1)

DUBAI, UAE
ILS Rwy 12L

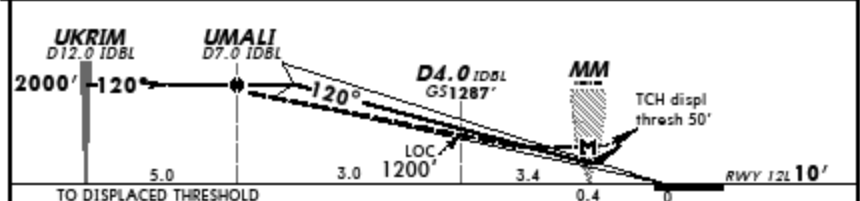
D-ATIS 131.7	DUBAI Arrivals (APP/R) 124.9	*DUBAI Director (APP/R) 127.9	DUBAI Tower 118.75 119.55	Ground 118.35
LOC IDBL 110.1	Final Appch Crs 120°	GS D4.0 IDBL 1287' (1277')	ILS DA(H) 210' (200')	Appt Elev 59' RWY 10'

MISSED APCH: Climb to 3000' direct to OSTIN and hold.

Alt Set: hPa Rwy Elev: 0 hPa Trans level: FL 150 Trans alt: 13000'
1. RNAV 5 required for transition and missed apch. 2. ILS DME reads zero at TDZ.



LOC (GS out)	IDBL DME	6.0	5.0	4.0	3.0	2.0	1.0
	ALTITUDE	1860'	1550'	1240'	930'	620'	310'



Grnd speed-Kts	70	90	100	120	140	160	HEALS-II PAPERS PAPERS 3000'	OSTIN	
ILS GS	3.00°	377	485	539	647	755			862
LOC Descent Angle	2.69°	333	428	476	571	666			761

JAR-OPS				STRAIGHT-IN LANDING RWY 12L		CIRCLE-TO-LAND	
ILS		LOC (GS out)					
DA(H) 210' (200')		MDA(H) 590' (580')					
FULL		ALS out		MM out		ALS out	
A			RVR 1000m				RVR 1500m
B			RVR 1200m	NOT AUTH			
C	RVR 550m	RVR 1000m	RVR 1600m				RVR 2000m
D							
						NOT AUTHORIZED	

CHANGES: Communications. Alt set. Minimums. © JEPPesen, 2000, 2010. ALL RIGHTS RESERVED.

OMDB/DXB
DUBAI INTL



4 JUN 10 11-2

DUBAI, UAE
ILS Rwy 12R

D-ATIS 131.7	DUBAI Arrivals (APP/R) 124.9	*DUBAI Director (APP/R) 127.9	DUBAI Tower 118.75 119.55	Ground 118.35
LOC IDBE 109.5	Final Appch Crs 120°	GS D2.0 IDBE 636' (626')	ILS DA(H) Refer to Minimums	Ant Elev 59' RWY 10'

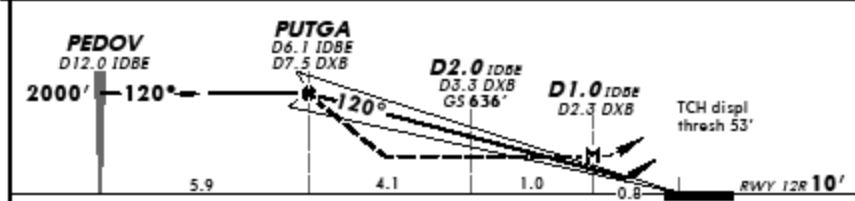
MISSED APCH: Climb to 3000' on 120° to OSTIN and hold.

Alt Set: hPa Rwy Elev: 0 hPa Trans level: FL 150 Trans alt: 13000'

1. RNAV 5 required for transition and missed apch. 2. ILS DME reads zero at TDZ.



LOC	IDBE DME	6.0	5.0	4.0	3.0	2.0	1.0
(GS out)	ALTITUDE	1970'	1650'	1340'	1020'	700'	380'

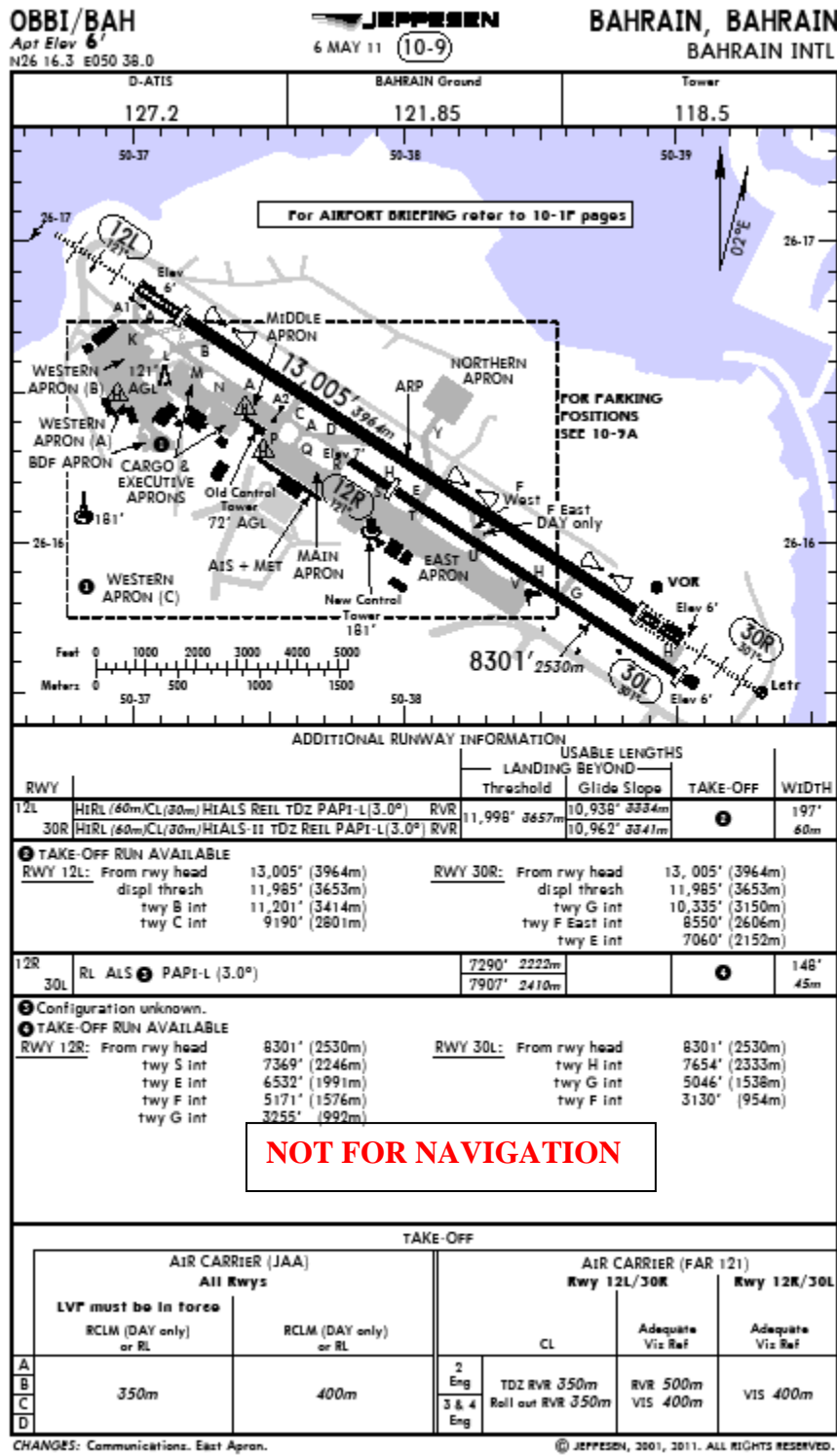


Grnd speed-Kts	120	140	160	180	
ILS GS	3.00°	647	755	862	970
MAP at D1.0 IDBE/D2.3 DXB					

PANS OPS 3	JAR-OPS STRAIGHT-IN LANDING RWY 12R			CIRCLE-TO-LAND	
	ILS A: 362' (352') C: 381' (371') DA(H) B: 371' (361') D: 391' (381')		LOC (GS out) MDA(H) 580' (570')		
	FULL	ALS out	ALS out		
	C	RVR 800m	RVR 1200m	RVR 1200m	RVR 2000m
D			RVR 1600m		
				NOT AUTHORIZED	

CHANGES: Communications. Alt set. Minimums. © JEPPESEN, 2007, 2010. ALL RIGHTS RESERVED.

B. Bahrain International Airport

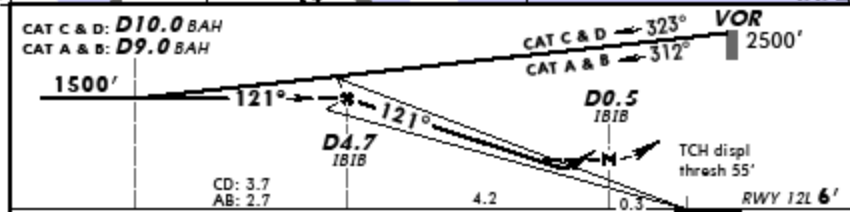
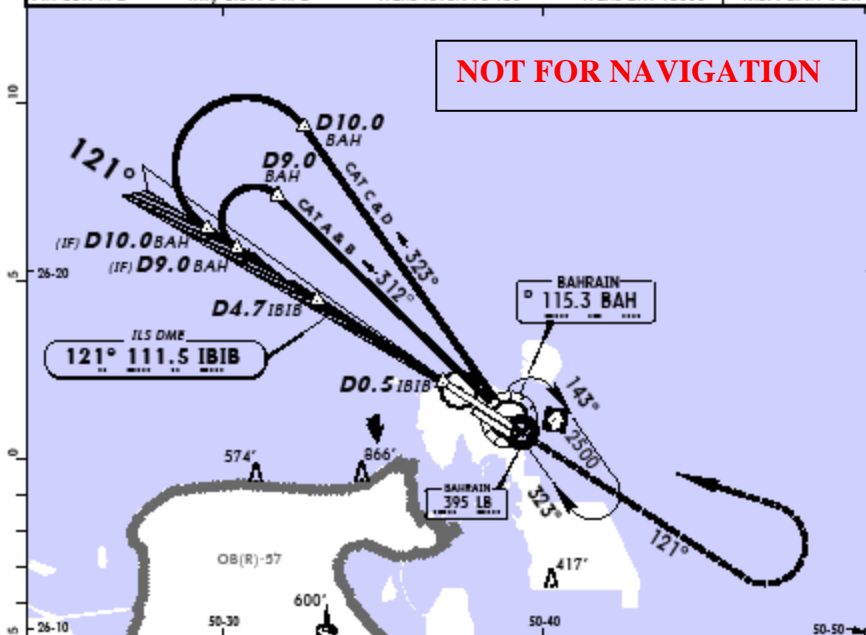


OBBI/BAH
BAHRAIN INTL

JEPPesen
29 AUG 08 (1-1)

BAHRAIN, BAHRAIN
ILS DME Rwy 12L

ATIS 127.2		BAHRAIN Approach (R) 127.85		BAHRAIN Tower 118.5		Ground 121.85	
LOC IBIB 111.5	Final Apch Crs 121°	GS D4.7 IBIB 1500' (1494')	ILS DA(H) Refer to Minimums	Appt Elev 6'	Rwy 6'		
MISSED APCH: Climb on 121° to 2500', then turn LEFT to rejoin BAH holding, or as directed.							
Alt Set: hPa		Rwy Elev: 0 hPa		Trans level: FL 150		Trans alt: 13000'	
							MSA BAH VOR



Grnd speed-Kts	70	90	100	120	140	160	HIALS
ILS GS 3.00° or LOC Descent Gradient 5.3%	377	485	539	647	755	862	
MAP of D0.5 IBIB							

ILS STRAIGHT-IN LANDING RWY 12L				LOC (GS out)		CIRCLE-TO-LAND	
DA(H) A: 206' (200') C: 222' (216') B: 214' (208') D: 233' (227')			MDA(H) 400' (394')		Not authorized South of apt between R-180 and R-260 clockwise		
FULL			TOL or CL out		ALS out		Max Xrs.
A							100
B	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	RVR 1500m VIS 1600m		135
C							180
D				1200m	RVR 1800m VIS 2000m		205
							MDA(H)
							420' (414') 1600m
							500' (494') 1600m
							600' (594') 2400m
							700' (694') 3600m

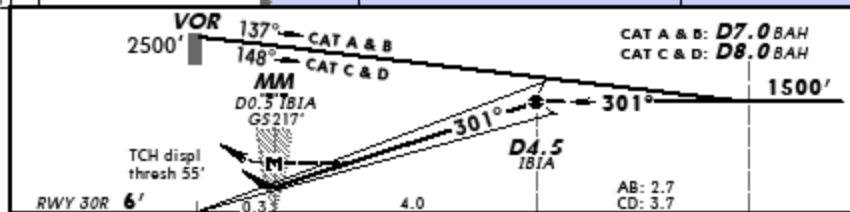
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OBBI/BAH
BAHRAIN INTL

JEPPSEN
29 AUG 08 (11-2)

BAHRAIN, BAHRAIN
ILS DME Rwy 30R

ATIS 127.2		BAHRAIN Approach (R) 127.85		BAHRAIN Tower 118.5		Ground 121.85	
LOC IBIA 110.3	Final Apch Crs 301°	GS D4.5 IBIA 1500' (1494')	ILS DA(H) Refer to Minimums	Apt Elev 6'	RWY 6'		
<p>MISSED APCH: Climb on 301° to 2500', then turn RIGHT to rejoin BAH holding, or as directed.</p>							
Alt Set: hPa		Rwy Elev: 0 hPa		Trans level: FL 150		Trans alt: 13000'	
						MSA BAH VOR	



Grnd speed-Kts	70	90	100	120	140	160	HEALS-II
ILS GS 3.00° or LOC Descent Gradient 5.3%	377	485	539	647	755	862	
MAP at MM/D0.5 IBIA							

ILS STRAIGHT-IN LANDING RWY 30R				LOC (GS out)		CIRCLE-TO-LAND Not authorized South of apt between R-180 and R-260 clockwise	
DA(M) ABC: 206' (200')		D: 212' (206')		MDA(M) 310' (304')			
	FULL	TDZ or CL out	ALS out		ALS out	Max Kts	MDA(M)
A						180	420' (414') 1600m
B	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	RVR 1500m VIS 1600m	135	500' (494') 1600m
C						180	600' (594') 2400m
D				1200m		205	700' (694') 3600m

CHANGES: None.

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