

AIP SUPPLEMENT

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AERONAUTICAL INFORMATION SERVICE
 AIRPORTS AUTHORITY OF INDIA
 RAJIV GANDHI BHAVAN
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 NEW DELHI - 110003

SI. No. 28/2008

Date 17 APRIL 2008

File No. AAI/NAD/09-09/03/AIP-SUPP (Part-AIS)

Following Supplement regarding the ILS Procedure Rwy 09 – Bangalore International Airport Ltd. (BIAL) is issued for information, guidance and necessary action. The date of implementation shall be notified through G-Series NOTAM separately after the successful flight trials of the procedure.



K. RAMALINGAM
CHAIRMAN
AIRPORTS AUTHORITY OF INDIA

[Effective Date - To be notified]

ILS Procedure Rwy 09 – BIAL (DME REQUIRED)
 All radials and distances are from VOR (112.3 BIA)

1.	Holding Procedures :-	
1.1	BIBDU (R-077/21D)	One minute right hand pattern inbound track 257 Deg M. Minimum holding altitude F85.
1.2	BEGRA (R-027/21D)	One minute right hand pattern inbound track 207 Deg M. Minimum holding altitude F85.
1.3	TAREX (R-310/21D)	One minute left hand pattern inbound track 130 Deg M. Minimum holding altitude F85.
1.4	EKVOG (R-282/21D)	One minute left hand pattern inbound track 102 Deg M. Minimum holding altitude F85.
	(NOTE : Simultaneous holding at EKVOG and TAREX at same level is not authorized)	

2.	Procedure	(Note : Speed shall be restricted to 185 KT IAS maximum prior to crossing the lead radial (R-282).
2.1	<p>ATS routes W42N/W43N/W118N/W117 BANGO 2 Arrival</p> <p>(If holding is required, aircraft shall proceed to TAREX via R-310)</p>	<p>Leave VOR (112.3 BIA) on track 310 Deg M (R-310) descending to 7000 feet. At 15D turn left to intercept 17 DME arc descending to 6600 feet. Crossing lead radial 282 turn left Hdg 125 to intercept LLZ (109.3 IBAN) inbound track 092 Deg M descending to 5900 feet. Descend on glide path to DA/H.</p> <p>(Note: Aircraft from ATS route W43N/W118N shall commence left turn at R-205/03 DME to intercept the outbound track 310.)</p>
2.2	<p>ATS route W101E/W56S TAREX 2 Arrival</p>	<p>From TAREX proceed on track 130 Deg M (R-310) descending to 6600 feet. At 19 DME turn right to intercept 17 DME arc. Crossing lead radial 282 turn left Hdg 125 to intercept LLZ (109.3 IBAN) inbound track 092 Deg M descending to 5900 feet. Descend on glide path to DA/H.</p>
2.3	<p>ATS route W57S/W47S BEGRA 2 Arrival</p>	<p>From BEGRA proceed on track 207 Deg M (R-027) maintaining FL85. At 19DME turn right to intercept 17 DME arc. Crossing R-340 descend to 6600 feet and crossing lead radial 282 turn left Hdg 125 to intercept LLZ (109.3 IBAN) inbound track 092 Deg M descending to 5900 feet. Descend on glide path to DA/H.</p>
2.4	<p>From EKVOG EKVOG 2 Arrival</p>	<p>From EKVOG proceed on Hdg 125 to intercept LLZ (109.3 IBAN) inbound track 092 Deg M descending to 5900 feet to cross IF 17D at 6600 feet or above. Descend on glide path to DA/H.</p> <p>(Note : Aircraft from ATS route W81 may join holding at EKVOG via 26DME arc).</p>
2.5	<p>ATS route W81 OPABO 2 Arrival</p>	<p>From OPABO (R-268/21D) turn left to intercept LLZ (109.3 IBAN) inbound track 092 Deg M descending to 6600 feet. Crossing IF 17D descend to 5900 feet. Descend on glide path to DA/H.</p>

2.6	From BIBDU BIBDU 2 Arrival	Leave BIBDUXDVxdv on track 257 Deg M (R-077) maintaining FL85. At 19 DME turn right to intercept 17 DME arc and thereafter, follow, the procedure applicable to BEGRA 2 Arrival.
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3	IF Altitude at IF Altitude at 4D ILS DME Altitude at 1D ILS DME Glide path Angle ILS RDH	17D 6600 feet 4440 feet 3360 feet 3.4 Degree 51 feet
4	OCA	Straight in 3205 feet Circling Cat A/B 3620 feet Cat C/D 3870 feet (Visual Manouvring (Circling) is restricted to North of Aerodrome Only).
5	G.P. In-operative Procedure FAF Altitude at FAF Descent Gradient MAPt	8.1D (ILS DME) 5900 feet 5.94 % (3.4 degree) 1D (ILS DME)
5.1	OCA	Straight in 3620 feet Circling Cat A/B 3620 feet Cat C/D 3870 feet (Visual Manouvring (Circling) is restricted to North of Aerodrome Only).

5.2 Distance (ILS DME)/ Altitude Information :

Distance (NM)	8.1D	7D	6D	5D	4D	3D	2D
Altitude (Feet)	5900	5520	5160	4800	4440	4080	3720

5.3 Rate of Descent / Ground Speed Information :

Ground Speed (Kt)	80	100	120	140	160	180
Rate of Descent (Ft./Min)	480	600	720	840	960	1080

6. M.A. Procedure : Climb straight ahead until VOR (BIA). Then turn left climb on R-077 to 5000 feet. Crossing 8 DME climb to 7000 feet and proceed to BIBDU to join holding at FL85 or as instructed by ATC.

7 MSA : Sector 025 – 180 5500 feet upto 25NM
Sector 180 – 025 5900 feet upto 25NM

(CAUTION : Aircraft operating at Military Airfield Yelahanka located at 240 Deg/7NM from ARP/ BIAL).

8. Aerodrome Operating Minima

Aerodrome Operating Minima	Category A (Visb./RVR)		Category B (Visb./RVR)		Category C (Visb./RVR)		Category D (Visb./RVR)	
	ALS	ALS OUT	ALS	ALS OUT	ALS	ALS OUT	ALS	ALS OUT
Normal Minima (ILS)	800(550)	1200	800(550)	1200	800(550)	1200	800(550)	1200
Restricted Minima (ILS)	900(650)	1200	900(650)	1200	900(650)	1200	900(650)	1200
Normal Minima (GP IN-OP)	1600	2400	1600	2400	2800	3600	3200	4000
Restricted Minima (GP IN-OP)	2000	2800	2000	2800	3200	4000	3600	4400
Normal Circling Minima		3600		3600		4000		4400
Restricted Circling Minima		3600		3600		4400		4800

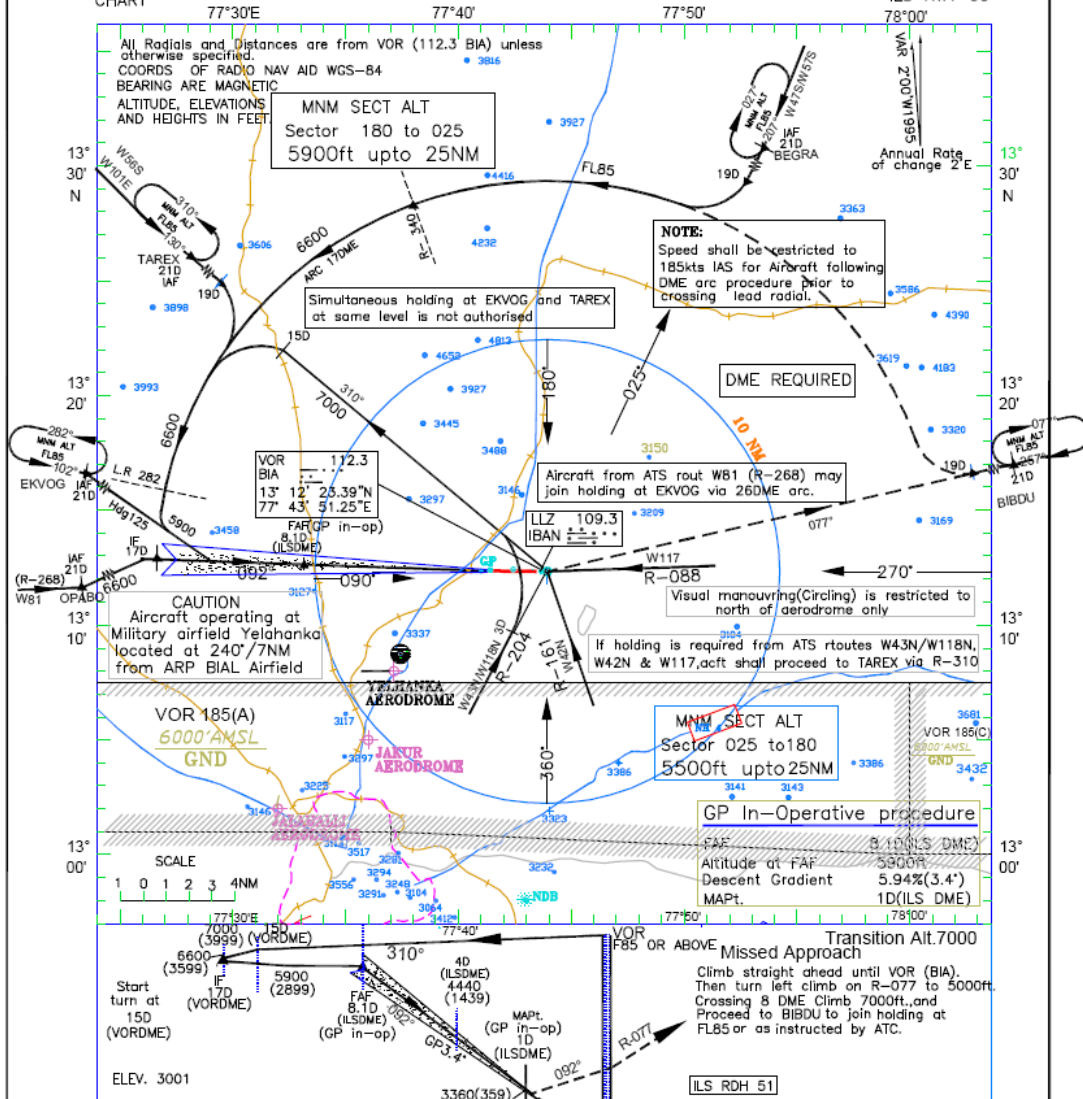
INSTRUMENT
APPROACH
CHART

AERODROME ELEV. 3004ft.
HEIGHTS RELATED TO
THR RWY 09 ELEV.3001ft

APP. 121.250
TWR. 124.35
TAR 119.45

BANGALORE INT. INDIA

ILS RWY 09



O C A			Distance (ILSDME)/Altitude information							
CATEGORY OF AIRCRAFT	A/B	C/D	Distance(NM)	8.1D	7D	6D	5D	4D	3D	2D
STRAIGHT-IN	3205	3205	Altitude (ft.)	5900	5520	5160	4800	4440	4080	3720
CIRCLING	3620	3870	Rate of Descent /Ground speed information							
GP in-op Procedure:			Ground speed (kt.)							
STRAIGHT-IN	3620	3620	80 100 120 140 160 180							
CIRCLING	3620	3870	Rate of descent (ft/min)							
			480 600 720 840 960 1080							
AERODROME OPERATING MINIMA	CATEGORY A		CATEGORY B		CATEGORY C		CATEGORY D			
	ALS	ALS OUT	ALS	ALS OUT	ALS	ALS OUT	ALS	ALS OUT		
NORMAL MINIMA (ILS)	800(550)	1200	800(550)	1200	800(550)	1200	800(550)	1200		
RESTRICTED MINIMA (ILS)	900(650)	1200	900(650)	1200	900(650)	1200	900(650)	1200		
NORMAL MINIMA (GP INOP)	1600	2400	1600	2400	2800	3600	3200	4000		
RESTRICTED MINIMA (GP INOP)	2000	2800	2000	2800	2800	4000	3600	4400		
NORMAL CIRCLING MINIMA	3600		3600		4000		4400			
RESTRICTED CIRCLING MINIMA	3600		3600		4400		4800			

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