

# Flight Calibration Plan by AEROTHAI

17-28 Feb 2022



Gautam Buddha International Airport

Bhairahawa, Rupandehi

# Welcome to GBIA



GBIA Masterplan Jan-2025



# GBIA Master Plan



DECLARED DISTANCES				
	TORA	TODA	ASDA	LDA
10	3000m	3000m	3000m	3000m
28	3000m	3000m	3000m	3000m

## CONSTRUCTION PHASE PLAN

### Construction Initiation

2022 Cargo Building, Outer Perimeter Road, Road Connecting Cargo and Terminal 1, Domestic Apron Extension, River Training, Outer Fencing  
 2022 Terminal 2 and its associated facilities, Infil Apron 2, Parallel Taxiway, Cargo Taxiway, Isolated Parking, Waste Collection Center, Drainage Management  
 2024 Airport Staff Quarter, Security Quarter, Hydrology and Metrology office, Airside Road, Inner Periphery Road and Security Fence

### Construction Completion

2023 (Start) Cargo Building, Outer Perimeter Road, Road Connecting Cargo and Terminal 1, River Training, Outer Fencing, Operation of Precision Approach CAT I, RADAR  
 2023 (End) Domestic Apron Extension, Waste Collection Center

## LEGEND

- Existing Pavement
- Airport Fence
- Existing Road
- Inner Periphery Road 1
- Inner Periphery Road 2
- Outer Periphery Road
- Other Airport Roads
- Existing Buildings

DEVELOPER	Civil Aviation Authority of Nepal National Pride Project Cargo Complex, Sinamangal, Kathmandu	PROJECT	Update of conceptual masterplan of Gautam Buddha International Airport (GBIA)	Designed By		SCALE:	0450900m
				Drawn By			
CONSULTANT	Realpath Engineering Consultancy Pvt. Ltd. Lalitpur, Nepal	TITLE	Construction Phase Plan - 2024	Checked By		DRAWING NO.	
				Approved By			

# Major System to check

- ATC Communication (VHF and HF)
- ATC Consoles
- Voice Communication Control System (VCCS) complete with redundant server with all
- Instrumental Landing System (ILS)- Localizer and Glide Path
- AWOS (Weather)
- DVOR/DME
- (Flight calibration is required for communication and navigational systems)
- Aeronautical Ground Lighting (AGL) / Precision Approach Path Indicator (PAPI)



# Schedule of Flight Calibration

Date	Program	Remarks
17 Feb	Arrival from Bangkok and leave for GBA	Landed KTM at 3pm
18 Feb	Meeting and start flight calibration of NAV AIDS (starting from DVOR DME)	Briefing with CAAN for flight calibration plan and start doing from VOR Flight check
19 Feb	DVOR DME	VHF com test simultaneously
20 Feb	DVOR DME	VHF com test simultaneously
21 Feb	ILS/DME / PAPI	VHF com test simultaneously
22 Feb	ILS/DME	VHF com test simultaneously
23 Feb	Break	
24 Feb	ILS/DME	VHF com test simultaneously
25 Feb	ILS and Flight Procedure Charts	VHF com test simultaneously
26 Feb	Flight Procedure Charts	VHF com test simultaneously
27 Feb	Flight Procedure Charts	VHF com test simultaneously
28 Feb	Back to Bangkok	

# Flight Inspection Aircraft



Super King Air B200 Aircraft

# Flight Inspection Aircraft Arrival at TIA



# ILS – Calibration of Localizer and Glide path

ILS/DME GBA type and nominal configuration

	Localizer	Glide Slope	DME
Assigned Frequency	109.30	332.00	991
Manufactured/Model	SELEX 2100	SELEX 2110	SELEX 118A
Type	Dual Frequency	Capture Effect	Omni Direction
LOC Displacement sensitivity (Sector Width)	3.71		
GP Width		3.00	



# Localizer

Parameter required to measure for Localizer Commissioning Flight Inspection.

#	Parameter
1.	Modulation Balance and Depth
2.	Displacement Sensitivity
3.	DDM Increase Linear
4.	Off-Course Clearance
5.	High-Angle Clearance
6.	Course Alignment Accuracy
7.	Course Structure
8.	Polarization
9.	Monitor System <ul style="list-style-type: none"><li>– Displacement Sensitivity alarm limit</li><li>– Course Alignment Alarm limit</li></ul>
10.	Coverage (Usable Distance)
11.	Identification

# Glide Slope

Parameter required to measure for Glide Slope Commissioning Flight Inspection.

#	Parameter
1.	Modulation Balance and Depth
2.	Displacement Sensitivity
3.	Glide Path Angle Alignment
4.	Glide Path Structure
5.	Clearance Below and Above Path
6.	Obstruction Clearance
7.	Monitor System <ul style="list-style-type: none"><li>– Displacement Sensitivity Alarm limit</li><li>– GP Angle Alarm Limit</li></ul>
8.	Coverage (Usable Distance)

# DME

Parameter required to measure for DME Commissioning Flight Inspection.

#	Parameter
1.	Distance Accuracy
2.	Coverage

# DVOR DME

## DVOR/DME NEW GBA

	DVOR	DME
Assigned Frequency	117.0 MHz	
WGS-84 Position	Lat 27° 30' 02.72605" Lon 83° 26' 23.31834"	
Elevation	45.9912 m.	
Magnetic variation	-0.49 Degree)	
Manufactured/Model	Selex/1150A	Selex/1119A
Transmitted Power	1000 W	1000 W



# Flight Level part of orbit R095>R210

## A part of Flight Calibration of DVOR



# Summary of Flight Check

- Flight Inspection : 17-27 Feb 2022
- Interim Report Submission: 27 Feb 2022  
(after completing all the flight check, before departing back to Bangkok)
- Final Report Submission to CAAN: after 15 days of completion of job
- Approval by DGCA (after taking consent of concerned department): 15 days approximately
- Publication in AIRAC cycle: by AIM Department (after approval from DGCA)
- Finally wait for 56 days for commercial movements



Terminal from Landside





Runway - Daylight

Runway – Night Time







Thank You!