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The Fourth Meeting of the South Asia, Indian Ocean and Southeast Asia ATM Coordination Group (SAIOSEACG/4)

Bangkok, Thailand, 18 – 21 March 2025

Agenda Item 4: Implementation of CNS-ATM System

PROCEDURE AND IMPLEMENTATION STRATEGY FOR PARALLEL OPERATION OF NEW AERODROME CONTROL TOWER AT KOLKATA AIRPORT

(Presented by INDIA/AIRPORTS AUTHORITY OF INDIA)

SUMMARY

This paper presents the Procedure and Implementation strategy for Operationalization of New Aerodrome Control Tower at Kolkata, India, with augmentation of existing Automation System software to include 6 new additional positions at the New Aerodrome Control Tower.

1. INTRODUCTION

1.1 Under the Airport Expansion Plan, New Aerodrome Control Tower cum Technical Block has been constructed at NSCBI Airport, Kolkata, India. In the 1st phase of operation from New ATS Complex, transition of the Aerodrome Control Tower is envisaged with augmentation of existing Automation System software to include the 6 new positions of New Control Tower.

1.2 New Aerodrome Control Tower at Kolkata is to be operationalized with existing ATM Automation system(ATMAS). Hence, there is a requirement for upgradation of the Operational and Backup cum Simulator ATMAS to include the additional 6 positions of New Aerodrome Control Tower .

2. DISCUSSION

TRANSITION PREPARATION: Procedure and Implementation plan for Operationalization of New Aerodrome Control Tower

2.1 To Operationalize the New Aerodrome Control Tower , a committee was formed comprising of all the stakeholders including ATM/CNS/MET/ENGINEERING/IT to ensure installation of the controller working positions (CWP), equipment, and facilities in the New Aerodrome Control Tower the similar way it is available in the existing Aerodrome Control Tower.

2.2 Following Working positions & Resources have been made available:

- i. Aerodrome control tower
- ii. Surface movement control

- iii. Clearance delivery
- iv. Met observer panel
- v. Equipment such as SDDs/FDDs/ALCMS/ASMGCS/ACDM/VHF/VCS/DATIS/NAVAID display/MET message display/AMSS workstation etc.
- vi. The new positions needed to be connected to the Main Automation server.
- vii. SOP for parallel operation of Aerodrome control service from New ATS Complex was prepared.
- viii. Hazards associated with the upgradation was identified and mitigation plan drawn through safety assessment. The new Automation system software would be tested for efficacy before loading and testing the upgraded system in the main automation system. Date of Parallel Operation will be finalized after successful completion of stability test of the new software and subsequent regulatory approval.

2.3 **Transition Readiness:** Before uploading the upgraded automation system software in the main operational system, to check and validate the efficacy of the new software, the augmented automation system software was uploaded and tested in the back up/system simulator site from 27th January to 7th February, 2025. During the testing, it was also connected to external interfaces like ADS/CPDLC link and AMSS.

Prior to the system transition, following steps were taken to ensure a smooth transition:

- a) For upgradation of system software in the Operational ATMAS, it was agreed by AAI to provide a window of 6(Six) hours to the OEM, M/S INDRA SYSTEMAS to load and test the new software. During this period, the ATS operation was planned from the backup /system simulator site which was augmented with additional servers and CWP's.
- b) Coordination meeting with the adjacent FIRs, Area Control Centers and CATFM was conducted to brief the situation and contingency measures in case of failure of any major system component or, disruption of surveillance service.
- c) Safety Assessment was conducted on 27th January, 2025, for ATS operation from the upgraded simulator/contingency automation system working positions during the loading and testing of the upgraded automation software in the main operational system. Magnitude of the change was Moderate.
- d) ATCOs were briefed and trained to provide Air Traffic Services from the backup/system simulator site when main automation system would be down for uploading and testing of the upgraded system software for six hours.

2.4 **System Transition:** System transition was carried out successfully on 19th February, 2025, from 22:00UTC to 04:00UTC, without any major inconvenience. During this time, ATS operation was provided from the backup/ system simulator site. The start time was decided considering the off-peak hours.

2.5 The operational positions in the New Aerodrome Control Tower are now ready for operation as an integral part of the current operational ATMS. The present Aerodrome Control Tower is also connected to the current operational ATMS so that parallel operation may be started as planned.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper; and
- b) discuss any relevant matters as appropriate.

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