



International Civil Aviation Organization

The Third Meeting of the South Asia/Indian Ocean ATM Coordination Group (SAIOACG/03) and the Twentieth Meeting of the South East Asian ATM Coordination Group (SEACG/20)

Bangkok, Thailand, 18 – 22 February 2013

Agenda Item 2: Review Outcomes of Related Meetings

OUTCOMES OF ADS-B FOCUS GROUP, INDIA-BANGLADESH ATM COORDINATION/02 AND ASIOACG/07 & INSPIRE03 MEETINGS

(Presented by Airports Authority of India)

SUMMARY

This paper presents the information from relevant meetings regarding ADS-B/VHF data sharing; review of various ANS related issues and ATS Route Development.

This paper relates to –

Strategic Objectives:

- A: *Safety – Enhance global civil aviation safety*
- C: *Environmental Protection and Sustainable Development of Air Transport – Foster harmonized and economically viable development of international civil aviation that does not unduly harm the environment*

Global Plan Initiatives:

- GPI-1 Flexible use of airspace
- GPI-2 Reduced vertical separation minima
- GPI-3 Harmonization of level systems
- GPI-4 Alignment of upper airspace classifications
- GPI-5 RNAV and RNP (Performance-based navigation)
- GPI-6 Air traffic flow management
- GPI-7 Dynamic and flexible ATS route management
- GPI-8 Collaborative airspace design and management
- GPI-9 Situational awareness
- GPI-10 Terminal area design and management
- GPI-11 RNP and RNAV SIDs and STARs
- GPI-14 Runway operations
- GPI-15 Match IMC and VMC operating capacity
- GPI-16 Decision support systems and alerting systems
- GPI-17 Data link applications
- GPI-18 Aeronautical information
- GPI-19 Meteorological Systems
- GPI-21 Navigation systems
- GPI-22 Communication infrastructure

1. INTRODUCTION:

1.1 ADS-B Focus Group Meeting was held in Singapore on 3-4 July 2012 convened by CANSO.

1.2 The combined ASIOACG 7 – INSPIRE 3 Meetings were hosted by Airports Authority of India in Mumbai on 11th – 14th December, 2012.

1.3 The 2nd ATM Coordination meeting between India and Dhaka was held in Hazrat Shahjalal International Airport, Kurmitola, Dhaka on 18th -20th December 2012.

2. DISCUSSION

ADS-B Focus Group Meeting

2.1 The meeting was attended by representatives from the Airports Authority of India (AAI), Civil Aviation Authority of Singapore (CAAS), Department of Civil Aviation of Myanmar (DCA Myanmar), International Air Transport Association (IATA) and Civil Air Navigation Services Organization (CANSO). Mr Chiang Hai Eng from CANSO welcomed all participants to the ADS-B Focus Group Meeting. This meeting arose from ADS-B SITF/11 which supported a proposal by CANSO to facilitate a two day focus group meeting in Singapore in July 2012 for the parties concerned to focus on specific project deliverables and milestones using the framework/model developed for the initial phase of the South China Sea project.

2.2 Focus Group Meeting comprised of India, Myanmar, Maldives and Sri Lanka for Bay of Bengal and Indian Ocean; and Singapore, Philippines and Brunei for the eastern part of the South China Sea.

2.3 CAAS shared the key lessons learnt from the implementation of the initial phase of the South China Sea project and shared with the meeting on the Sample ADS-B Data and VHF sharing agreements and the various financing models and maintenance options. AAI shared the implementation plans of India with the meeting and said that under Phase 1, India will install and commission 14 ADS-B stations at Agartala, Ahmadabad, Amirtsar, Calicut, Cochin, Coimbatore, Guwahati, Jaipur, Lucknow, Mangalore, Nagpur, Port Blair and Trivandrum and Varanasi by October 2012.

2.4 Under Phase 2, tentatively, more ADS-B stations would be installed at Agatti, Aurangabad, Barhampur, Dibrugarh, Jaisalmer, Kandla, Paykyong and Tiruchirapalli by first half of 2013. Under Phase 3, tentatively, six more ADS-B stations would be added. DCA Myanmar also shared the implementation plans of Myanmar with the meeting and said that under Phase 1, Myanmar would install and commission two ADS-B stations at Coco Island and Sittwe by first half 2013. Under Phase 2, tentatively, more ADS-B stations would be installed at Lashio, Myeik and Yangon by second half of 2014.

2.5 The discussion then focused on the feasibility of India and Myanmar collaborating to achieve sharing of AS-B and VHF data by the states in a time bound manner.

2.6 The outcome of the discussions is summarized as follows. India and Myanmar in-principle agreed to share ADS-B data and VHF facilities from: (i) Sittwe (ii) Coco Island of Myanmar and (i) Agartala (ii) Port Blair of India. Under this ADS-B data sharing arrangement,

2.7 India and Myanmar would have end-to-end surveillance coverage on M770 and associated routes (Note that there is radar coverage at Calcutta and Myeik).

2.8 Myanmar would have backup surveillance at the Southwestern part and Northwestern part of Yangon FIR. The Surveillance coverage of both States would also be enhanced as the ADS-B stations at the adjacent State would be able to receive ADS-B reports from aircraft flying at lower altitude, which may be beyond the line of sight of their own surveillance sources.

2.9 The meeting noted that an ADS-B station at the Nicobar Islands would be beneficial to enhancing safety, efficiency and capacity over the eastern gateway of the Bay of Bengal. The surveillance coverage would also be beneficial to States such as Malaysia and Indonesia. India would explore the possibilities in this regard.

2.10 The meeting noted that Sri Lanka and the Maldives would be able to help cover some of the surveillance gaps by installing ADS-B stations and sharing the data (for example, Sri Lanka may like to consider one more ADS-B station at a vantage position in the Eastern side in addition to the proposed ADS-B station at Pidurutalagala to enhance the overall surveillance coverage in the Bay of Bengal and Indian Ocean). The meeting noted that the participation of Sri Lanka and the Maldives would be more fruitful and should be encouraged.

2.11 In view of the long lead time for airlines to be equipped with ADS-B to meet the requirements of the ADS-B mandate, the meeting requested IATA to inform its airlines about India's and Myanmar's plans to issue ADS-B mandate effective from 1st January 2015.

2.12 In concluding the meeting Mr Chiang thanked all participants for a fruitful meeting. He said that all parties concerned should quickly follow up with their respective bilateral discussions so that they can report on the progress of the ADS-B projects at the next ICAO SEA/BOB WG meeting later this year.

ASIOACG 7 – INSPIRE 3 Meetings

2.13 The combined ASIOACG 7 – INSPIRE 3 Meetings were hosted by Airports Authority of India in Mumbai on 11th – 14th December, 2012. The meeting was attended by 50 participants from ASECNA – Madagascar and Senegal, Australia, India, Kenya, Maldives, Mauritius, Sultanate of Oman, Seychelles, Sri Lanka, United Arab Emirates (General Civil Aviation Authority and Dubai Air Navigation Services both), IATA and member airlines—Emirates Airline , Etihad Airways, Qatar Airways, Virgin Australia, Qantas, Ethiopian Airlines, Singapore Airlines,. The representatives of Air India, Indigo airlines and Jet Airways also participated in the meetings. The previous combined meeting of ASIOACG and INSPIRE was held at Cape Town in November/December 2011 followed by a working group meeting in Dubai during May 2012.

2.14 The meeting deliberated on annual updates provided by ANSPs regarding ATM enhancement activities undertaken by them during 2012, implementation of RHS in their FIRs, ATM Coordination issues including implementation of AIDC Trial Operation Procedures.

- The issues related with AIDC trials were sorted out. All the ANSPs agreed to implement AIDC procedures on priority.
- Using SATCOM as a means of air to ground communications in the air space where HF communication is difficult was discussed at length.
- The environmental benefits being accrued as a result of UPR Operational Trials through Arabian Sea and Indian Ocean UPR Geographic Zone remained at the Centre of discussions for two days. The report received from 107 UPR trial flights have demonstrated CO2 savings of 240 tonnes and time savings of 7 hours and 15 minutes. The highest fuel savings have been reported by Kenya Airways on Africa-South East Asia Flights and lowest fuel saving have been reported by Singapore Airlines on South Asia to South Africa flights.

- The way point SABEK which lies near the FIR boundaries of Australia, Maldives and Sri Lanka FIRs has been reintroduced after mutual consultation among the ANSPs and the Airlines concerned.
- The INSPIRE STRATEGIC PLAN is being aligned with ICAO ASBU principles and made more objective oriented. The meeting finalized Work Programme for UPR flights and associated procedures and documentations that are to be completed within 2013.
- Presentations on the Upper Airspace Harmonization accomplished for Chennai FIR and Sri Lanka's new International Airport at HANAMBOTA were also made in the meeting.

2.15 The next combined meeting of ASIOACG and INSPIRE will be held in Melbourne during November 2013.

Second ATM Coordination Meeting between Bangladesh and India

2.16 The Second ATM Coordination meeting was held in Hazrat Shahjalal International Airport, Kurmitola, Dhaka. The meeting was attended by 22 participants from AAI, Jet Airways (India) Pvt. Ltd India, CAAB, HSIA, Bangladesh Air Force (BAF), Biman Bangladesh Airlines Ltd. Mr. Azad Zahirul Islam, Director ATS & Aerodromes, Civil Aviation Authority of Bangladesh (CAAB), welcomed the participants and expressed that the meeting would resolve many bilateral issues between the two neighboring countries. The 1st ATM coordination meeting between Bangladesh & India was held in Kolkata between 20th and 22nd July 2011.

2.17 AAI presented a paper covering the following topics i) the present and future activities of AAI in the fields of ANS, (ii) architecture and uses of Indian SBAS system(GAGAN) and iii) restructuring of Kolkata FIR and Upper Airspace Harmonization policy of AAI. CAAB presented a paper on the following topics (i)The history of CAAB,(ii)Structure of CAAB,(iii)Present ATS routes in Dhaka FIR (iv) Present CNS Structure,(v) Implementation of new flight plan messages,(vi) Future development of surveillance technology,(vii) Installation of ATN,(viii) Future development and automation of ATM system.

2.18 The meeting deliberated on Revision of LOA between Dhaka ACC, Kolkata ACC and Guwahati ACC, MOU on SAR and Cospas-Sarsat Service/Cooperation, ICAO New Flight Plan format & implementation, New ATS Route and Sectorization of Dhaka FIR, ATS Contingency Plan, PBN Implementation in Bangladesh, Danger Area VGD-31, 32, 33, 34 & 35 activation NOTAM, Training of ATS & FIRE Personnel of CAAB in India, Implementation of ADS-B in Dhaka FIR, Aeronautical Charts/Maps, etc. The meeting also discussed the issues on air traffic situation through India & Dhaka FIR , airspace harmonization procedures, mitigation of ATM related constraints & future development of ATM system, use of GAGAN signal-in-space, Indian ADS-B structure and opportunities for CAAB to use Indian technologies.

Revision of LOA between Dhaka ACC, Kolkata ACC and Guwahati ACC

2.19 The existing LOAs between Kolkata ACC and Dhaka ACC, and Guwahati ACC and Dhaka ACC were discussed in detail. Both the LOAs were updated/revised with mutual consent and the revised LOAs were signed which became effective from 1st February 2013.

LOA on SAR

2.20 Bangladesh informed that the draft LOA on SAR between Bangladesh and India was approved by CAAB. Director (ATS and Aerodromes), CAAB also informed that Chairman; CAAB is empowered to sign the LOA for SAR on behalf of the Government of Bangladesh. CAAB informed that COSPAS-SARSAT messages are being exchanged with INMCC at Bangalore, India. The process of Beacons registration has been initiated and CAAB assured that all the aircraft ELT beacon registration will be completed by 30 June 2013.

ICAO New Flight Plan format & implementation

2.21 CAAB informed that system is upgraded for transmission/reception of ICAO new FPL and commenced the operation from 15 November 2012 as per ICAO requirement. CAAB informed that the installation of ATN system which is expected to be commissioned by March 2013 has the capability to handle RPL. It was decided that RPL will be implemented after the commissioning of ATN system in Bangladesh.

New ATS Route and Sectorization of Dhaka FIR

2.22 The establishment of unidirectional route between CEA-CML, GGT-CEA and between CML-LLP, was considered. CAAB while agreeing in-principle expressed that they require approval from the competent authorities before working on the proposal. Also CAAB informed that there is a plan to bifurcate Dhaka ACC in two sectors, Upper & Lower, with support of existing area Radar. It was then decided that AAI will send a fresh proposal for unidirectional route between CEA-CML via Barisal, between GGT-CEA and between CML-LLP after analyzing the proposal by CAAB.

ATS Contingency Plan

2.23 CAAB informed that the contingency plan for Kolkata FIR was accepted by CAAB and the contingency plan for Dhaka FIR was accepted by Kolkata after carrying out some minor changes.

PBN Implementation in Bangladesh

2.24 CAAB informed that they will publish its first RNAV (GNSS) approach procedure for Hazrat Shahjalal International Airport by February 2013. AAI expressed its desire to assist in implementing PBN in Bangladesh. CAAB agreed to coordinate with AAI while restructuring routes and airspaces with PBN specifications.

Danger Area VGD-31, 32, 33, 34 & 35 activation NOTAM

2.25 It was decided that Kolkata ACC will request Dhaka ACC if immediate deactivation or lowering of upper limit of Danger Areas VGD-31, 32, 33, 34 & 35 is required. CAAB shall make prior arrangement to inform Bangladesh navy by most expeditious means for onward action. CAAB has also agreed to follow up the issue and as a stop-gap measure, suggested for a WSO to WSO coordination between Kolkata & Dhaka, for any possible de-activation of Range activity, should there be any requirement of deviation during monsoon.

Training of ATS & FIRE Personnel of CAAB in India

2.26 Training of ATS & Fire personnel were discussed in details. AAI informed that they are ready to provide trainings for CAAB personnel in Indian Civil Aviation Training Centers. It was then decided that CAAB will process through administrative ministry to send proposal to Indian government for Training of ATS & FIRE Personnel of CAAB in India.

Implementation of ADS-B in Dhaka FIR

2.27 CAAB informed that, ADS-B will be installed by 2014 to cover whole Dhaka FIR. The representatives of India said that as their ADS-B network is already covering Dhaka FIR, CAAB can avail the opportunity to share Indian data any time to implement ADS-B in Dhaka FIR. It will reduce extra cost of installing ADS-B stations in Bangladesh. CAAB appreciated their proposal and said that India will be contacted if CAAB decides after necessary study to use Indian ADS-B data.

2.28 Mr. Azad Zahirul Islam Director (ATS & Aerodromes) CAAB congratulated the participants for their dedicated and active participation during the three days' meeting. Mr. Vijayinder Kumar Dutta, Executive Director (ATM), AAI, appreciated the outcome of the meeting and desired that such meetings shall be held more frequently to resolve the bilateral issues and assured all support to such meeting in future. He gave a strong assurance that the existing close cooperation between India and Bangladesh will continue in future as well.

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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