INSPIRE INDIAN OCEAN STRATEGIC PARTNERSHIP TO REDUCE EMISSIONS	airservices

Combined Fourth Meeting of Arabian Sea/Indian Ocean ATS Coordination Group (ASIOACG/8) and Indian Ocean Strategic Partnership to Reduce Emissions (INSPIRE/4) –

Melbourne, Australia 25th November – 28th November 2013

Agenda Item 9: [Update from ANSP on various initiatives]

Airport-Collaborative Decision Making in India

(Presented by Airports Authority of India)

SUMMARY

Airports Authority of India has implemented **Airport-Collaborative Decision Making** IGI Airport, New Delhi. The A-CDM for Delhi has been termed Delhi Airport-CDM (DA-CDM). At Bangalore International Airport the A-CDM is being finalized. At CSI Airport Mumbai, A-CDM is under development.

Relevant Strategic Objectives:
*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-6 Air traffic flow management
GPI-9 Situational awareness
GPI-13 Aerodrome design and management
GPI-14 Runway operations
GPI-16 Decision support systems and alerting systems

Aviation System Block Upgrade

B0-80 Improved Airport Operations through CDM

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1   INTRODUCTION

1.1   The Delhi Airport - Collaborative Decision Making (DA-CDM) undertaken at IGI Airport is a joint programme among all airport partners –
a) Air Navigation Service Provider (ATC)
b) Airline Operators (AO)
c) Delhi International Airport Pvt. Limited (DIAL)
d) Ground Handlers (GH)

e) Support services (CISF, Customs and Immigration, Air Force Movement Liaison
Unit, etc.)
f) Air Traffic Flow Management Unit (ATFMU) [in the near future].

1.2   The Mumbai Airport- Collaborative Decision Making is being developed entirely in house by
ATC Team of Mumbai airport. Beta version of the Mumbai A-CDM is under trial.   Information
is available to all airport users from industry including airlines, airport operator and Movement
Liaison Unit of Indian Air Force to achieve situational awareness among all stake holders. Today
in its first phase, the system works as a stand-alone system. In the subsequent phases, the Mumbai
A-CDM will be integrated with ATM automation system and airport Operational Control Centre.

1.3   At Bangalore International Airport A-CDM is likely to commence with effect from January
2014. At Kolkata airport also, implementation of A-CDM underway.

2   DISCUSSION

2.1   All the partners work in close collaboration to ensure the successful operation of DA-CDM. IGI
Airport New Delhi is the first Airport in India to have successfully implemented **Airport
Collaborative Decision Making** (**A-CDM**). It has been developed completely in-house by ATC
Delhi teamed with IT department of M/s Delhi International Airport Limited (DIAL) IT. DA-
CDM has been implemented on 5th June 2013. The primary objective of DA-CDM is to facilitate
the sharing of operational data for a better informed, well planned and transparent decision
making to ensure more precise overall operational processes. It leads to an optimized utilization
of resources; an efficient turn round process and everyone has a common awareness of the
situation.

2.2   The efficiency of the Air Transport System is highly dependent on traffic predictability. DA-
CDM effectively enhances predictability (this reduces buffer times for resource planning and
flight times), overall efficiency and punctuality by linking and sharing of accurate and timely
information amongst Airlines, Airport Operator, ATC, etc.

2.3   DA-CDM Cell has been established in AOCC to operate on 24x7 basis for day-to-day issues.
Steering Committee of DA-CDM meets every month to discuss tactic and future strategic
planning and its implementation.

2.4   All the time parameter acronyms have standard length of four characters like TOBT, TSAT,
TTOT and have the same meaning for all the DA-CDM partners. These terms are in line with
Eurocontrol A-CDM Manual.

2.5   The business rules for the airlines, ground handlers have been kept as simple as possible and easy
to follow. For further details on business rules and other information AIP Supplement No
21/2013 is attached.

2.6   A long of period of rigorous trials have preceded the implementation of DA-CDM. The business
rules for TOBT, TSAT and TTOT etc were primarily developed by ATC Delhi and the IT
platform was developed by DIAL teamed with ATC Delhi. All other stake holders were taken on
board the project to participate and contribute during developmental phases of DA-CDM.

2.7   The DA-CDM was formally launched on 5th June 2013, followed by publication of AIP Supplement No. 21/2013 and DGCA Air Transport Circular 2 of 2013. Effective 4th November 2013, the slot cancellation for the non-compliant flights have also started.

2.8   Effective Winter 2013, the Fog-CDM cell of ATC Delhi has been integrated with DA-CDM to achieve harmony of slot allocation during post-fog departure periods.

2.9   **LIMITATIONS**
2.9.1   General Aviation flights and military flights are being encouraged and sensitized to join   DA-CDM to input TOBTs.
2.9.2   Many slots are consumed by helicopter movements. Slots used by helicopters have to be adjusted by ATC.
2.9.3   Actual and suspected bird hits require Runway inspection which results in a waste of 3-4 slots per event.
2.9.4   While AMAN is functional, DMAN is being procured and would be coupled with AMAN and integrated with A-SMGCS for better recording of time stamps.
2.9.5   CTOT is not yet taken into account. With ATFM in place soon, CTOT would also be considered.
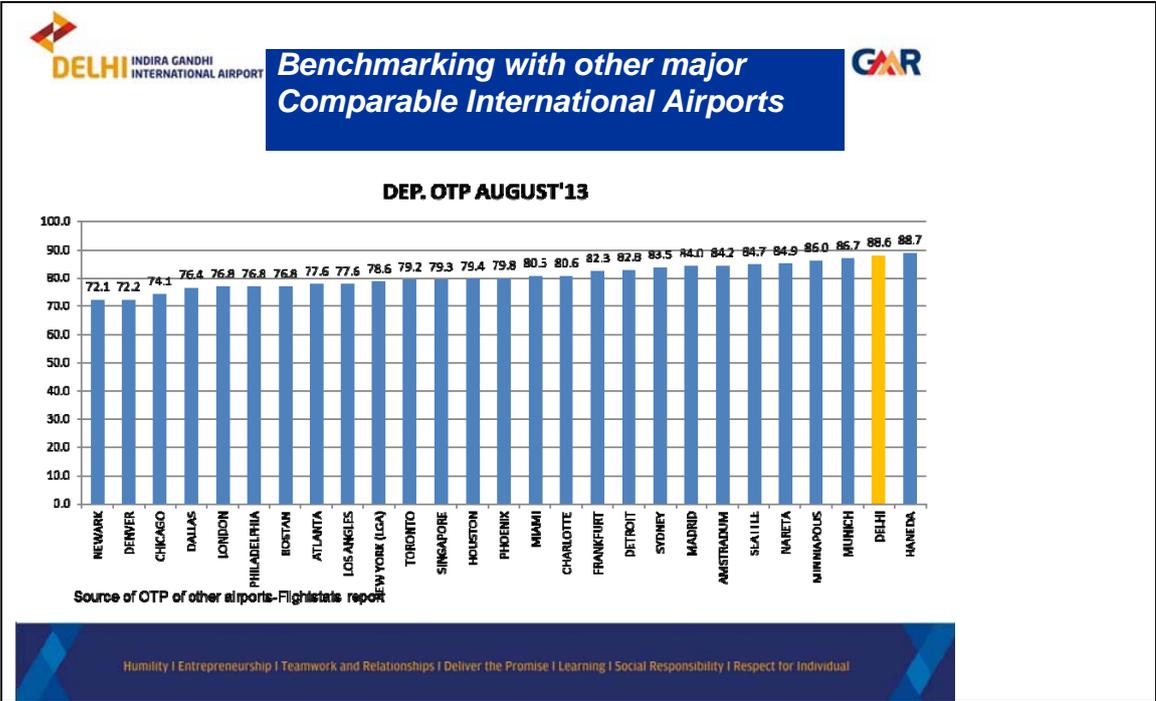2.9.6   Redundancy in the provision of broadband connections from different operators is being worked out to reduce connection downtime at ATC.
2.9.7   Sometimes partners fill imprecise timings. Day-to-day issues are resolved by DA-CDM Cell which has been opened in AOCC with 24x7 including ATC.

2.10   **BENEFITS**

2.10.1 The On-Time-Performance (OTP) of airlines at Delhi airport has improved tremendously. The following graphs highlight the success of DA-CDM

And duly recognized by media also

3   ACTION BY THE MEETING

3.1   The meeting is invited to Note

a)   the implementation of DA-CDM at IGI airport which could serve as a model for ASIOACG ANSPs and other airports in APAC region.

b)   discuss the limitations and possible solutions.