



SP/2

ADS-B OUT - IATA VIEW

ADS-B SITF/12 –

Kolkata India 15th -19th April 2013

IATA contact: David Rollo (rollod@iata.org)

ADS-B OUT

IATA supports

- ADS-B (OUT) based on Mode-S Extended Squitter (1090ES) is the preferred surveillance technology to replace or supplement radar

ADS-B

- **AUSTRALIA**
 - Fully operational since Dec 2009
- **CANADA** (Hudson Bay/ Minto Sector)
 - Operational since early 2009
- Both programs make use of current ADS-B OUT capabilities/ equipage

ADS-B OUT

- Airlines continue to equip their aircraft with ADS-B (OUT) capability
- Where justifiable by operational/ business cases - ANSPs should replace ground surveillance radar with ADS-B (OUT)
- New surveillance implementations should prioritize ADS-B OUT or Multilateration - over conventional radar
- ATS ground systems should continue to process valid DO-260 and DO-260A and DO-260B based ADS-B

ADS-B OUT

- Enhanced surveillance solutions offer:
 - More efficient airspace usage – increasing airspace capacity
 - Lower ATM infrastructure cost
 - Better return on ANSP surveillance investment

- Full operational benefits depends on communications capability (DCPC e.g. VHF/CPDLC availability)

ADS-B OUT

- ADS-B implementation worldwide must be harmonized and interoperable - operational procedures and ATM applications
- this should apply also to **operational approvals** by regulators – recognizing reciprocity of approvals under ICAO Annex 6.
- Ensure that any compliance mandate give sufficient notice to those that are not yet equipped (generally 4-5 years) – some allowances allowed as ADS-B no longer a new technology

ADS-B OUT

- ADS-B now “Maturing” technology
- Common Certification and Approval of aircraft equipage required
- Approval process should be treated like any other avionics equipage approval (e.g. ACAS II, transponder etc)
- Need for a Harmonized Global approval process – where State of Registry approval accepted by others States
- Guidance from APANPIRG available

ADS-B OUT

➤ Conclusion 21/40

That, States be advised to use the guidelines provided in Appendix P to the Report on Agenda Item 3.4 for Airworthiness and Operational Approval for ADS-B Out Avionics Equipage.

ADS-B OUT

- APANPIRG Conclusion 19/37 (and previous 18/35) urged States to
“publish their equipage mandates as soon as possible”
- *States are urged to harmonize their equipage and operational requirements*

ADS-B OUT

- States wishing to implement ADS-B must ensure compatibility with existing ATM/PBN developments, and
- Support agreed ASPAC Regional Strategy for Surveillance endorsed by APANPIRG - recognizing both DO-260 and DO-260A
- For separation reduction – ADS-B needs to be supported by appropriate DCPC

ADS-B OUT

- **States are must deliver early Operational Benefits as part of implementation programs**
- Equipage and approval requirements need to be published early – robust operational and approval requirements available
- Radar like separations can be applied between suitably equipped aircraft

ADS-B OUT

- Priority handling could be introduced before a mandate becomes effective
 - To encourage early implementation
 - Equipped aircraft get priority
 - Non equipped are not excluded
 - Application time-frame dependent on airspace's unique circumstances

ADS-B OUT

- New aircraft delivered have ADS-B OUT capability as a standard
- Proportion of ADS-B capable aircraft increasing
 - Fleet renewal
 - States operational mandates becoming active
- Recognizing the existing approvals/ process can reduce operator burden
 - Reduce costs
 - Reduce administrative process

ADS-B OUT

- EUR ADS-B OUT implementation (Dec 2017) and FAA's ADS-B NRA (Jan 2020)?

- Need to consider the future requirements and standards
 - DO-260B
 - SA requirements? (none in AMC 20-24)
 - Retain AMC 20-24 – if EUR discard APAC should adopt as many states already use this and many aircraft already certified to AMC20-24

SBAS

IATA has a serious concern about SBAS as a global GNSS solution that supports ADS-B OUT operations:

- SBAS poses extremely high operational costs to airlines; there is no currently positive business case for airlines;
- Most airlines' fleets are generally not equipped for SBAS;
- No clear SBAS future development plans and any cost mitigation

SBAS – IATA position

- Commercial operators should not be forced to pay for a any State sponsored SBAS investment without proper consultation and cost/benefit analysis to support the technology;
- Airlines have invested heavily in SBAS technology and its ubiquitous availability makes it a natural cost-effective GNSS augmentation system and an enabler for Performance Based Navigation (PBN); and
- IATA supports GBAS to provide for early GNSS capability to replace ILS CAT I/II/III.

Conclusion

- States need to publish their operational mandates & requirements early
- Recognize existing ADS-B OUT capability
- Harmonized global approval process - State of Registry approval accepted by others States (Black List)
- Implement ADS-B OUT with in accordance with existing APANPIRG guidance
- Support sharing of ADS data information across FIRs
- Existing ADS-B OUT operations should transit seamlessly to future standards



THANK YOU