



ICAO

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(FIT-Asia/13)

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Agenda Item 5: Data Link Developments and Guidance Material

PBCS GLOBAL CHARTER

(Presented by ICAO)

SUMMARY

This paper presents a briefing on the PBCS Charter. The Charter facilitates co-operation among all PBCS stakeholders, including ANSPs, Aircraft Operators and Communication Service Providers (CSPs), to achieve the objectives of PBCS.

1. INTRODUCTION

Background

1.1 Performance-Based Communication and Surveillance (PBCS) Manual, Doc 9869 and Global Operational Data Link (GOLD) Manual, Doc10037 provide guidance that ANSPs and aircraft operators should include the required communication performance (RCP) and required surveillance performance (RSP) allocations for the Communication Service Provider (CSP) in their contractual arrangements with their respective CSP(s), together with monitoring, recording, and outage notification requirements.

1.2 PBCS Manual, Doc 9869 contains the statement on ANSP services provision as below.

*4.3.1.5 The ANSP should ensure that contracted services, such as with CSPs and aeronautical stations, are bound by **contractual arrangements** stipulating the RCP/RSP allocations, including any monitoring or recording requirements, and the guidelines of section 4.3.2.*

1.3 PBCS Manual, Doc 9869 contains the statement on Communication services provision as below.

*4.3.2.1 The CSP should provide services that meet the RCP/RSP allocations provided in the specifications. These allocations are used to establish **contractual arrangements**, which support safety oversight and approval of both ANSP and the aircraft operator for provision and use of the services, respectively.*

*4.3.2.2 The CSP should ensure that the services it provides adhere to the **contractual arrangements**, which include:*

- a) RCP/RSP allocations, as contained in the appropriate RCP/RSP specification(s);*
- and*

b) notification to ATS units, aircraft operators and others, as appropriate, of any failure condition that may impact PBCS operations.

4.3.2.3 When a CSP holds a contract with an aircraft operator, but not with ATS units for airspace in which the aircraft operator operates, that CSP should also notify the appropriate the ATS units of any failure condition that may impact the aircraft operator's PBCS operations.

4.3.2.4 The CSP should record and retain all communication and surveillance data, thereafter providing this data to ANSP and regional PBCS monitoring programmes upon request, when authorized by appropriate parties, in accordance with the contractual arrangements with the ANSP or aircraft operator.

1.4 PBCS Manual, Doc 9869 contains the statement on Aircraft operator eligibility as below.

*4.3.4.3 The aircraft operator should ensure that contracted services, such as those with CSPs, are bound by **contractual arrangements** stipulating the RCP/RSP allocations, including any monitoring or recording requirements, and the guidelines of section 4.3.2.*

*4.3.4.4 The aircraft operator should ensure that **contractual arrangements** include a provision for the CSP to notify the appropriate ATS units for the route system of the aircraft operator in case failure conditions impact PBCS operations.*

Note.— This provision ensures appropriate ATS units are notified in cases when the ANSP does not have a contractual arrangement with a particular CSP, and services are provided through internetworking among CSPs/SSPs.

1.5 During the PBCS implementation discussion among the ICAO Operational Datalink Working Group (OPDLWG) PBCS planning team, CSPs expressed that they would be unable to enter into binding contracts/agreements because it was impossible for them to guarantee a certain performance to individual ANSPs and Aircraft Operators with their being many contributors affecting performance outside of the CSP domain.

1.6 Therefore, the OPDLWG agreed and developed the PBCS Global charter to address ground, CSP, and aircraft segment performance using a collaborative performance management approach to achieve the objectives of PBCS. The charter recognizes that factors outside of the CSP domain affect observed performance and provides an alternate means of compliance with the CSP contractual requirements in the guidance material. The charter offers additional benefits by clarifying to all stakeholders what is required of them to make a successful transition into a PBCS environment.

Objective

1.7 According to the Charter Document (version Jun 8, 2018), the PBCS Charter facilitates co-operation among all PBCS stakeholders to achieve the objectives of PBCS. Each Charter stakeholder agrees to take the actions herein for which the required communication performance (RCP) and required surveillance performance (RSP) specifications have been prescribed. The entities eligible to become a PBCS Charter stakeholder include:

- ANSPs using PBCS to support ATM operations in their airspace.
- Aircraft operators participating in PBCS operations.
- Communication service providers (CSPs).

- Satellite service providers (SSPs).
- Aircraft manufacturers.
- Aircraft equipment suppliers.

1.8 The PBCS Global Charter Document (version June 8, 2018) is appended. (**Attachment A**)

2. DISCUSSION

2.1 As of May 2023, five Aircraft Manufacture and Aircraft Equipment Suppliers, 10 CSPs and SSPs, 14 ANSPs (CAAs), and 2,404 Aircraft Operators have signed up for the Charter. **Figure 1** provides a snapshot of the signatories, except Aircraft Operators.

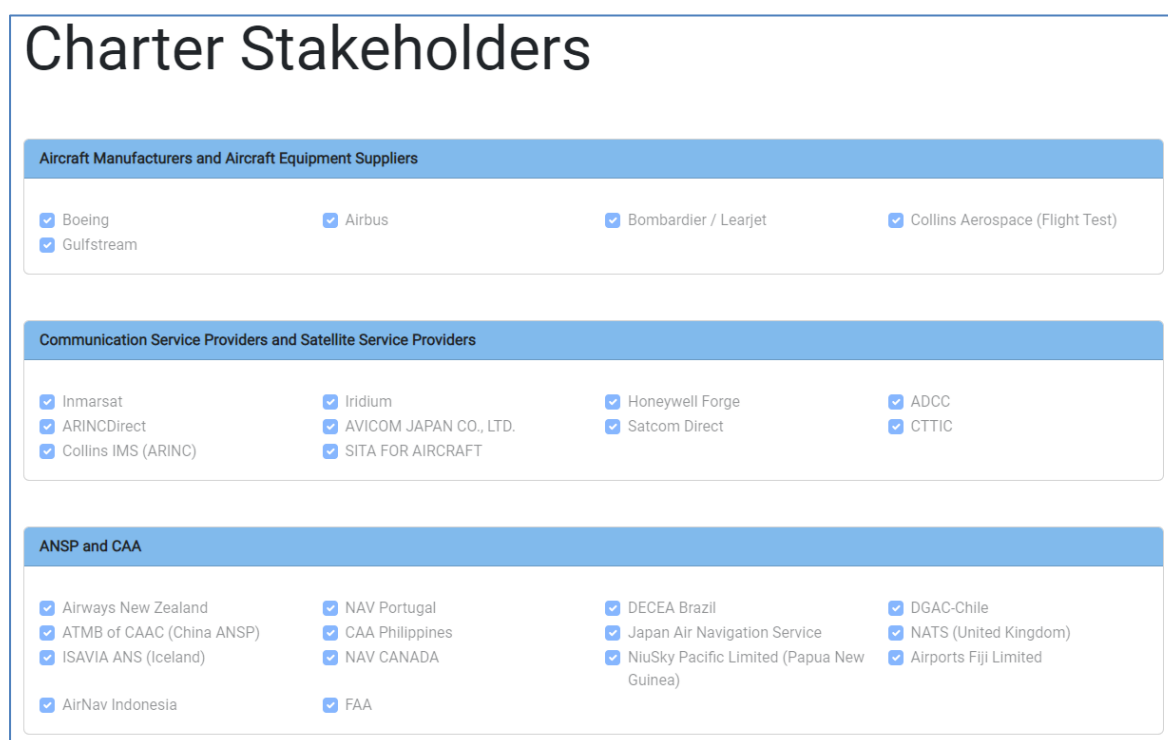


Figure 1: Charter signatories (as of May 2023)

2.2 Only three ANSPs of the FIT-Asia member States/Administrations have signed up the Charter.

- ATMB of CAAC
- CAA Philippines
- AirNav Indonesia

2.3 As for two remaining action items of the FIT-Asia, i.e., 10/1 and 11/1, two Aircraft Operators still do not release their data link logs for analysis by the CRA. ICAO will approach the operators and their States of Registry to request cooperation and encourage them to sign up for the PBCS Charter.

2.4 The PBCS Charter was not intended to be a long-term solution. It was provided as an option in place of or in addition to contractual agreements for CSP compliance. Therefore, ANSPs and

Aircraft Operators are urged to sign up for the Charter as the most effective means and approach to ensure CSP compliance, an essential PBCS component.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper;
- b) urge ANSPs and Aircraft Operators to sign up for the PBCS Charter; and
- c) discuss any relevant matters as appropriate.

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Performance-Based Communication and Surveillance (PBCS) Global Charter Charter Document Version June 8, 2018

1. Charter Purpose and Applicability

1.1 This PBCS Charter facilitates co-operation among all PBCS stakeholders to achieve the objectives of PBCS. Each Charter stakeholder agrees to take the actions herein for which the required communication performance (RCP) and required surveillance performance (RSP) specifications have been prescribed.

The entities eligible to become a PBCS Charter stakeholder include:

- ANSPs using PBCS to support ATM operations in their airspace.
- Aircraft operators participating in PBCS operations.
- Communication service providers (CSPs).
- Satellite service providers (SSPs).
- Aircraft manufacturers.
- Aircraft equipment suppliers.

1.2 This Charter may be used to show ANSP and operator stakeholder compliance to PBCS Manual guidance specifying contract/service agreements with the CSP. This commitment to compliance is shown when the ANSP or operator PBCS stakeholder has become a charter stakeholder through signing this charter and the CSP(s) they use have also signed the charter. Should an ANSP or operator PBCS stakeholder subsequently withdraw their charter signature or any of their contracted CSPs withdraw their charter signature, the ANSP and/or operator must notify their state authority since such withdrawal will affect their PBCS operational authorization.

2. References

- 2.1. ICAO Doc 9869, *Performance-Based Communication and Surveillance (PBCS) Manual*.
- 2.2. ICAO Doc 10037, *Global Operational Data Link (GOLD) Manual*.

3. Term

3.1. The Charter remains in effect until such time the majority of Charter stakeholders agree to terminate the Charter.

4. Confidentiality

4.1. Except as provided elsewhere in this Charter any information provided as a result of this Charter by any Charter stakeholder shall not be disclosed for any purpose without authorization of such Charter Stakeholder, provided, however, that signatory status to the charter shall not be deemed confidential information.

5. No Basis for Claims

5.1. No Charter stakeholder may rely upon or apply the terms of this Charter as a basis of or support for a claim or action of any kind against another Charter stakeholder.

6. Support of PBCS by Stakeholders

6.1. All Stakeholders

- 6.1.1. Provide and maintain Charter stakeholder contact information.
- 6.1.2. Submit problem reports of any operational problem as expeditiously as possible to the appropriate Central Reporting Agency(ies) CRA('s)
- 6.1.3. Support problem investigations upon CRA request.
- 6.1.4. Provide best efforts to follow the PBCS Manual guidance.

- 6.1.5. Provide best efforts to meet the PBCS Manual RCP 240/D and RSP 180/D allocations for the applicable domain(s). However, in the event that there is something in a charter stakeholder domain that is contributing to a PBCS performance metric not being met, investigate the issue and, if feasible, take corrective action. If corrective action is not feasible, support regional level discussions to determine an appropriate mitigation.
- 6.1.6. Support capacity planning to mitigate the risk of underperformance due to sudden unplanned increases in communication traffic demand.
- 6.1.7. Provide a single e-mail address, which will serve as the point-of-contact for Charter correspondence.

6.2. Additional PBCS Support by the ANSP

- 6.2.1. When the ANSP-observed performance of a PBCS qualified aircraft deteriorates below the RCP240/D or RSP180/D acceptable performance level, raise a problem report to the appropriate CRA('s) for investigation.
Note: The PBCS Manual allows flexibility in determining the acceptable performance level. Some regions are currently using 99.0% as an acceptable performance level.
- 6.2.2. In addition, when the ANSP-observed performance of a PBCS qualified aircraft deteriorates below the RCP240/D or RSP180/D 95% performance level, notify the appropriate regional monitoring agency(ies).
- 6.2.3. Provide monitored PBCS performance data to state(s), aircraft manufacturer(s), and aircraft operator(s) upon request.
- 6.2.4. Promulgate PBCS performance monitoring results to stakeholders, as regionally agreed, to assist in identifying issues that may affect other ANSPs' airspace and to facilitate adequate performance monitoring by the aircraft operator and regulators.
- 6.2.5. Authorize CSPs to provide any flight log data that may contain ANSP messages to CRA('s) through agreeing to this Charter.
- 6.2.6. Provide a single e-mail address to which CSPs are to send planned maintenance and unplanned service impairment notifications.

6.3. Additional CSP Support

- 6.3.1. Provide flight logs upon CRA request.
- 6.3.2. Maintain flight log data for a given flight for a minimum of 30 days after the flight.
- 6.3.3. Send planned maintenance and unplanned service impairment notifications to the single e-mail address that each ANSP and aircraft operator provides.

6.4. Additional Aircraft Operator Support

- 6.4.1. By agreeing to this Charter authorize CSPs to provide any flight log data containing aircraft operator messages to CRA ('s) upon CRA request. CRA will copy the aircraft operator on any request.
- 6.4.2. By agreeing to this Charter authorize ANSPs to promulgate PBCS performance for the aircraft operators aircraft to Charter stakeholders.
- 6.4.3. Provide aircraft-specific recordings upon CRA request.
- 6.4.4. Make best effort to implement all aircraft equipment software updates as recommended by CRA that may resolve FANS1/A performance issues.

6.5. Additional Aircraft Manufacturer Support

- 6.5.1. Assist aircraft operators to implement upgrades that resolve FANS1/A performance issues.

7. Administration of Charter

- 7.1. The Charter will be administered by Airways Corporation of New Zealand Limited or such other entity as selected by the majority of the Charter Stakeholders. The administrator shall take reasonable steps to administer the Charter and provide an informational system for access by the Charter Stakeholders.
- 7.2. The Charter administrator shall provide a system by which all Charter Stakeholders may be advised of the signatory status of all other Charter Stakeholders.

- 7.3. Any Charter Stakeholder may withdraw from the Charter upon notice to the Charter administrator.
- 7.4. The Charter may be amended by majority vote of the Charter Stakeholders and notice to all Charter Stakeholders.