



PBCS Implementation Plan: Doc 9869 Appendix A

Global Operational Data Link (GOLD)

Familiarization with Performance Based Communications
and Surveillance (PBCS) Workshop

Dakar, Senegal 11-15 September 2017

Prepared by:
FAA WJH Technical Center
Separation Standards Analysis Branch
Presented by: John Warburton ANG-E61



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Implementation Plan Checklist

- Doc 9869 Table A-1 provides a guide for planning the implementation of any performance-based communication and surveillance (PBCS) operation. The checklist is organized as follows:
 - Group A tasks – State/region preparation;
 - Group B tasks – ANSP general project development and management;
 - Group C tasks – ANSP implementation activities – ATS service provision;
 - Group D tasks – Aircraft operator, aircraft type/system (airworthiness) eligibility; and
 - Group E tasks – All stakeholders – post-implementation monitoring.

Group A Tasks State/Region (1)

Task ID	Task Descriptor	Task Detail	Reference(s)
Group A tasks – State/region preparation			
A-1	AIP – Prescription of an RCP/RSP specification	Prescribe the appropriate RCP/RSP specification in the AIP (or equivalent publication). If applicable, common AIP language may be based on a bilateral, multilateral or regional air navigation agreement.	Chapter 3
A-2	ANSP – PBCS policies, objectives supporting safety oversight	Identify means to apply RCP/RSP specifications and compliance criteria for initial approval and continued compliance, including: a) ATS provision requirements, and requirements for ATS unit’s system and CSP/SSP service agreements, if applicable; b) flight plan requirements; and c) monitoring, alerting and reporting requirements.	Chapter 4 Section 4.2.1 Section 4.2.2

Group A Tasks State/Region (2)

Task ID	Task Descriptor	Task Detail	Reference(s)
Group A tasks – State/region preparation			
A-3	Operator and aircraft system – PBCS policies, objectives supporting safety oversight	<p>Identify means to determine aircraft operator eligibility requirements for PBCS operations, including requirements for operations, maintenance, aircraft system and CSP/SSP service agreements, if applicable:</p> <ul style="list-style-type: none"> a) establish State airworthiness requirements; b) establish operational policy/procedures requirements for operational approval; c) prepare State inspectors to perform tasks for operational approval; d) develop plan to issue operational approval to national operators. Train pilots and, if applicable, dispatchers on PBCS operations; and e) develop and distribute operations manuals, pilot bulletins or other appropriate documents containing PBCS policy and/or procedures. <p><i>Note.— State of the Operator identifies means for commercial air transport operations. State of Registry identifies means for general aviation operations. State of Design identifies means for design approval of the aircraft system.</i></p>	<p>Chapter 4 Section 4.2.1 Section 4.2.3</p>



Group A Tasks State/Region (3)

Task ID	Task Descriptor	Task Detail	Reference(s)
Group A tasks – State/region preparation			
A-4	<i>Regional Supplementary Procedures (Doc 7030) for PBCS operations, if applicable</i>	On behalf of a region, a State may develop a proposed amendment to the <i>Regional Supplementary Procedures (Doc 7030)</i>, if applicable.	Chapter 3 Chapter 4

Group B Tasks ANSP General (1)

Task ID	Task Descriptor	Task Detail	Reference(s)
Group B tasks – ANSP general project development and management			
B-1	PBCS Implementation Plan	Establish PBCS implementation team and prepare a plan outlining the tasks for PBCS implementation. Include interdependencies between tasks, when each task is to be completed, lead point of contact and any coordination required.	State/region specific, this appendix serves as a guide.
B-2	Target dates for PBCS and relevant ATM operations	Identify key target dates for implementing PBCS supporting specified ATM operation(s) and the tasks identified in the plan.	State/region specific.

Group B Tasks ANSP General (2)

Task ID	Task Descriptor	Task Detail	Reference(s)
Group B tasks – ANSP general project development and management			
B-3	RCP/RSP specifications	Identify and confirm applicable RCP/RSP specifications that will be used for operational implementation of communication and surveillance capabilities supporting specified ATM operation(s). Existing RCP/RSP specifications may be appropriate for a new ATM operation predicated on RCP/RSP specifications (e.g. application of performance-based separation minimum), or when implementing an emerging technology to provide a communication or surveillance capability (e.g. SATVOICE) supporting an existing ATM operation. If a new RCP or RSP specification is needed, establish a task to coordinate with ICAO on the development of the appropriate RCP/RSP specifications for update to Doc 9869.	Chapter 3 Appendix B Appendix C

Group B Tasks ANSP General (3)

Task ID	Task Descriptor	Task Detail	Reference(s)
Group B tasks – ANSP general project development and management			
B-4	PBCS awareness	Establish means to raise awareness on PBCS implementation in a particular region or airspace through workshops and distribution of information. Establish a planning team to work with ICAO and subject matter experts to develop relevant material.	This manual Doc 10037 Doc 10037

Group C Tasks ATS Service (1)

Task ID	Task Descriptor	Task Detail	Reference(s)
Group C tasks – ANSP implementation activities – ATS service provision			
C-1	Operational concepts and procedures for PBCS operations	<p>Develop operational concepts for implementation of any ATM operation predicated on an RCP/RSP specification. Consider the following:</p> <ul style="list-style-type: none"> a) applicable ATM operation(s); b) relevant interoperability requirements for communication and surveillance capabilities; c) provision for PBCS operations and appropriate RCP/RSP specifications; d) operating procedures for PBCS operations; e) operator/flight/flight crew and/or ATS unit/controller contingency procedures when system degrades below that required by RCP/RSP specifications; and f) procedures for resuming specified ATM operation(s) after system is restored to an acceptable level of performance. 	<p>This manual Doc 10037 Doc 10037</p>

Group C Tasks ATS Service (2)

Task ID	Task Descriptor	Task Detail	Reference(s)
Group C tasks – ANSP implementation activities – ATS service provision			
C-2	ATC automation changes to use flight plan RCP/RSP indicators	<p>Implement changes to recognize and use flight plan RCP/RSP indicators to apply ATM operation(s) predicated on the RCP/RSP specifications only to eligible operators/aircraft, and/or adapt other system parameters, if applicable (e.g. set timer threshold values), based on different performance levels).</p> <p>This task should be complete prior to operational implementation of ATM operation(s) predicated on RCP/RSP specifications.</p>	Chapter 4 Section 4.4
C-3	ATC automation changes for PBCS monitoring	<p>Implement post-implementation monitoring capability in ATC automation.</p> <p>This task should be completed to obtain a sufficient sample to confirm ACP and ASP comply with RCP/RSP specifications prior to implementation of specified ATM operation(s).</p>	Chapter 4 Section 4.5 Appendix D Appendix E
C-4	Confirm initial ANSP compliance with RCP/RSP specifications	<p>Prior to operational implementation, confirm CPDLC and ADS-C comply with RCP/RSP specifications:</p> <ul style="list-style-type: none"> a) measure actual performance against RCP/RSP specifications for compliance to support initial approval of ATS provision, including CSP/SSP service agreement, if applicable; b) identify any aspect of service performance that is not compliant with the RCP/RSP specifications; and c) take appropriate action to mitigate. 	Chapter 4 Section 4.2.2 Section 4.3.1 Section 4.3.2 Appendix D Appendix E

Group D Tasks Operator AC (1)

Task ID	Task Descriptor	Task Detail	Reference(s)
Group D tasks – Aircraft operator, Aircraft type/system (airworthiness) eligibility			
D-1	Aircraft operator readiness	Satisfy operator eligibility requirements for PBCS operations that are established by the State of the Operator or State of Registry in Task A-3. This includes requirements for flight crew training and qualification, operations, maintenance, aircraft system and CSP/SSP service agreements.	Chapter 4 Section 4.2.3 Section 4.3.2 Section 4.3.3 Section 4.3.4
D-2	Confirm initial operator and/or aircraft type/system compliance with RCP/RSP specifications	Prior to operational approval, confirm CPDLC and ADS-C aircraft equipment and operator capabilities comply with RCP/RSP specifications: a) measure actual performance against RCP/RSP specifications for compliance to support initial approval of operator, including aircraft system approval and CSP/SSP service agreement, if applicable; b) identify any aspect of aircraft type/system and/or capability performance that is not compliant with the RCP/RSP specifications; and c) take appropriate action to mitigate.	Chapter 4 Section 4.2.3 Section 4.3.2 Section 4.3.3 Section 4.3.4 Appendix D Appendix E

Group E Tasks All Stakeholders

Task ID	Task Descriptor	Task Detail	Reference(s)
Group E tasks – All stakeholders – post-implementation monitoring			
E-1	PBCS monitoring – post-implementation	<p>On-going post-implementation data collection, monitoring, problem reporting and tracking, analysis and corrective action.</p> <p>When performance falls below specified levels, or problems are reported, operational judgment may be a consideration in determining appropriate actions.</p>	<p>Chapter 4</p> <p>Section 4.5</p> <p>Appendix D</p> <p>Appendix E</p> <p>Doc 9937</p> <p>Doc 10063</p>