| **Task ID**  **PBCS PROGRAM IMPLEMENTATION V.1 Working Project from 2017 Dakar, Senegal** | **Task Descriptor** | **Lead** | **Complete Date** | **Task Detail** | **Reference(s)** | **Status** |
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| **Group A tasks – State/region preparation** | | | | | | |
| A-1 | AIP – Prescription of an RCP/RSP specification | MAIS | 2 ARAC CYCLES PRIOR | 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 | To publish in Kenya AIP  Applicable airspace: HKNA  ATM operation: Application of 5-minute longitudinal separation minimum to authorized operators  Communication: FANS1/A CPDLC –RCP 240  Surveillance: FANS 1/AADS-C –RSP 180 |
| A-2 | ANSP – PBCS policies, objectives supporting safety oversight | DASSR | Apirg pbcs project team – tbd | 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 | 1. Develop guidance materials for operators 2. Provide guidance and materials for operators for filing of flight plans by operators to capture P code 3. \Create Regional standardized processes for monitoring, alerting and reporting requirements. |
| A-3 | Operator and aircraft system – PBCS policies, objectives supporting safety oversight | DASSR | Prio to 2 cycles | 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:  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.  *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.* | Chapter 5  Section 5.2.1  Section 5.2.3 | 1. Production of common ac for approval 2. Regional doc 7030 amendment by   icao office |
| A-4 | *Regional Supplementary Procedures* (Doc 7030) for PBCS operations, if applicable | Manager ATS | Feb 2018 | On behalf of a region, a State may develop a proposed amendment to the *Regional Supplementary Procedures* (Doc 7030), if applicable. | Chapter 4  Chapter 5 | See a-3 |
| **Group B tasks – ANSP general project development and management** | | | | | | |
| B-1 | PBCS Implementation Plan | DANS | Jan 2018 | 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. | To establish PBCS implementation team and allocate tasks and sub-tasks |
| B-2 | Target dates for PBCS and relevant ATM operations | DANS | 1st March 2018 | Identify key target dates for implementing PBCS supporting specified ATM operation(s) and the tasks identified in the plan. | State/region specific. | 1. Define specific airspace (exclusive or non-exclusive) where pbcs is required 2. Publish need for p code 180 rnav 3. Establish atc personnel training 4. establishment of local and regional PBCS monitoring programmes 5. Notification of ATM operations, related aircraft operator requirements, including compliance with appropriate RCP/RSP specifications. |
| B-3 | RCP/RSP specifications | DASSR |  | 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 | Communication: FANS1/A CPDLC –RCP 240  Surveillance: FANS 1/AADS-C –RSP 180 |
| B-4 | PBCS awareness | DANS | continues | 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 10038 | 1. Conduct workshops on pbcs To share information with other key stakeholders eg aircraft operators - ICAO 2. At the National level – conduct information campaign for airspace users 3. OTHER MEANS OF AWANESS – WEB, INFO BULITAINS |
| **Group C tasks – ANSP implementation activities – ATS service provision** | | | | | | |
| C-1 | Operational concepts and procedures for PBCS operations | DANS | Feb 2018 | Develop operational concepts for implementation of any ATM operation predicated on an RCP/RSP specification. Consider the following:  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. | This manual  Doc 10037  Doc 10038 | 1. ATM operation: Application of separation minimum to authorized operators CONOPS 2. FANS 1/A 3. Communication: FANS1/A CPDLC –RCP 240   Surveillance: FANS 1/AADS-C –RSP 180   1. Publish operating procedures 2. Develop contingency procedures 3. Develop and publish relevant procedures |
| C-2 | ATC automation changes to use flight plan RCP/RSP indicators | DANS | Feb 2018 | 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).  This task should be complete prior to operational implementation of ATM operation(s) predicated on RCP/RSP specifications. | Chapter 5  Section 5.4 | Audit the ATC automation system to establish if it can accommodate the use of flight plan RCP/RSP indicators. If not have it upgraded by Jan. 2018 |
| C-3 | ATC automation changes for PBCS monitoring | DANS | Jan 2018 | Implement post-implementation monitoring capability in ATC automation.  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). | Chapter 5  Section 5.5  Appendix D  Appendix E | Ensure that the communication and surveillance systems continue to operate successfully as a whole to ensure efficient and safe operations. The ANSP should record the observed ACP and ASP for CPDLC-flight crew-initiated log files for different media paths using all transactions requiring a response. |
| C-4 | Confirm initial ANSP compliance with RCP/RSP specifications | DASSR | Jan 2018 | Prior to operational implementation, confirm CPDLC and ADS‑C comply with RCP/RSP specifications:  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 5  Section 5.2.2  Section 5.3.1  Section 5.3.2  Appendix D  Appendix E | 1. To implement 2. To identify 3. To take appropriate action |
| **Group D tasks – Aircraft operator, Aircraft type/system (airworthiness) eligibility** | | | | | | |
| D-1 | Aircraft operator readiness | Operator | Feb 2018 | 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 5  Section 5.2.3  Section 5.3.2  Section 5.3.3  Section 5.3.4 | Ensure all requirements are met |
| D-2 | Confirm initial operator and/or aircraft type/system compliance with RCP/RSP specifications | Operator | Feb 2018 | 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 5  Section 5.2.3  Section 5.3.2  Section 5.3.3  Section 5.3.4  Appendix D  Appendix E | 1. Obtain actual data on performance 2. Compare actual performance against the required performance 3. Take corrective action. |
| **Group E tasks – All stakeholders – post-implementation monitoring** | | | | | | |
| E-1 | PBCS monitoring – post-implementation | DASSR | May 2018 | On-going post-implementation data collection, monitoring, problem reporting and tracking, analysis and corrective action.  When performance falls below specified levels, or problems are reported, operational judgment may be a consideration in determining appropriate actions. | Chapter 5  Section 5.5  Appendix D  Appendix E  Doc 9937  Doc [PBHSM] | Data collection, reporting and analysis.  Implement contingency procedures developed. |