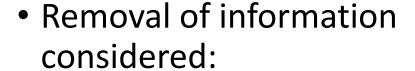# Asia/Pacific

Seamless ANS Plan

Draft Version 3.1.8

Initial Consideration

- Rationalize and simplify to the ✓ extent possible

- Removal of information considered: ✓
  - Redundant
  - Duplicated
  - Initial explanation of now well-understood concepts

- Simplify the structure of the Performance Improvement Plan ✗
  - Remove PARS/PASL
  - Replace with *Regional ANS Capability* Phases
    - Any other wording proposal?

Existing structure to be retained. Text to be rationalized/updated

Initial Consideration

- PASL and PARS concept has been merged into ✖

  Regional ANS Capability phases. Reword?

- ANSP Human Performance section has been deleted ✖

- R&D section has been moved to Appendix ✖

- Old redundant appendices such as Kansai Statement, Capacity expectations, ANC 12 recommendations have been replaced or removed ✔

- Seamless ANS Principles have been retained ✔

- Scope and Objective section has been reorganized which includes background information ✖

- NANP Template <u>may</u> be added as an Appendix ✔

- APAC CNS, …. Strategies are added as an Appendix ✖

Existing structure to be retained. Text to be rationalized/updated

Update principle

- Refrain from introduction of new *Regional Elements*, except where ✓ absolutely necessary

- Focus on APAC Regional Prioritization of ASBUs ✓

- Keep in mind NCLB
  - Priority 1 regional elements should be achievable for all (most?)
  - Priority 1 should focus on regional seamless ANS ✓

Future restructure

Existing Seamless ANS Plan V3.0	FUTURE RESTRUCTURE
Scope of the Plan	Scope, Development and Objectives of the Plan
Plan Objectives and Development	
Executive Summary	Executive Summary
Abbreviations and Acronyms	Abbreviations and Acronyms
Background Information	
Current Situation	APAC Regional ANS Implementation – Current Status
	APAC ANS Plan Considerations
Performance Improvement Plan	Performance Improvement Plan
Research and Future Development Possibilities	
Milestones, Timelines, Priorities and Actions	Milestones, Timelines, Priorities and Actions
Appendices	Appendices
	Research and Future Development Possibilities

Future restructure in 2026

Existing Seamless ANS Plan V3.0	FUTURE RESTRUCTURE
Scope of the Plan	Scope, Development and Objectives of the Plan
Plan Objectives and Development	
Executive Summary	Exe
Abbreviations and Acronyms	Abb
Background Information	
Current Situation	APA
	APA
Performance Improvement Plan	Per
Research and Future Development Possibilities	
Milestones, Timelines, Priorities and Actions	Mil
Appendices	App
	Research and Future Development Possibilities

FUTURE PROJECT:

Restructure

and

Migration to Regional ANP
VOL III

Section 7
Performance Improvement Plan

Draft Version 3.1.8

Section 7 – Performance Improvement Plan

- The core of the Seamless ANS Plan

- Performance expectations in implementation phases
  - **Phase II** – expected implementation by **07 November 2019**
    - Includes non-implemented Phase 1 (2015) 'elements'
  - **Phase III** – expected implementation by **03 November 2022**
  - **Phase IV** – expected implementation by **27 November 2025**
    - *New elements proposed – aligned with ASBU Block 1*
  - **Phase V** – expected implementation by **23 November 2028**
    - *New phase – aligned with ASBU Block 2*

Section 7 – Performance Improvement Plan

- **ASBU Block 2 modules _not yet_ considered** (subject to agreement)

- ACAS-B2/1-2; - Safety? ATM SG?
- APTA-B2/1-3; - CNS SG
- ASUR-B2/1-2; - CNS SG
- CSEP-B2/1-3; - ATM SG
- DAIM-B2/3-5; - ATM SG
- GADS-B2/1-4;- ATM SG? Safety?

- NAVS-B2/1-3;- CNS-SG
- NOPS-B2/7-8;- ATM SG
- OPFL-B2/1;- ATM SG
- TBO-B2/2;- ATM SG
- WAKE-B2/1-2;- ATM SG

Section 7 – Performance Improvement Plan

- **Phase II** – expected implementation by **07 November 2019**
  - Includes non-implemented Phase I (2015) 'elements'
- **Phase III** – expected implementation by **03 November 2022**
- <u>Retained</u>
  - Unavailability of reporting mechanism since 2019.
  - Regionally implemented elements may be considered for removal at 2026 update
  - Regionally non-implemented elements may be considered for migration into Phase IV (or later) at 2026 update

Section 7 – Performance Improvement Plan

- Phases structured into
- **Preferred Aerodrome/Airspace and Route Specifications (PARS)**
- **Preferred Aerodrome/Airspace and Route Specifications (PASL)**
- Performance expectations grouped within each phase/PARS/PASL:
  - Aerodrome Operations
  - Terminal Operations
  - Civil-Military Cooperation
  - Unmanned Aircraft Systems
  - ATS Communications
  - ATS Surveillance
  - Air Traffic Management
  - Air Navigation Services
- Retained for the 2023 update
- To be reconsidered for migration to ANP Vol III

Section 7 – Performance Improvement Plan

- Re-introduces **high density** international aerodromes

High density aerodromes referenced in these performance objectives are:

- *Aerodromes having 100,000 scheduled movements per annum or more; or*

- *Aerodromes where strategic slot allocation is implemented, or*

- *Aerodromes designated by the relevant authority as requiring or potentially requiring ATFM implementation.*

Section 7 – Performance Improvement Plan

- Re-introduces **high density** international aerodromes

  - Reference removed at 2019 update
  - Not all international aerodromes require ATFM, A-CDM, DCL, etc.
  - NB: 7.1   Note 1 to be retained (WP/28 indicates removed)
    - *Note 1: Sample runway capacity figures are provided from several States in* **Appendix D**

- Subject group headings added where needed (some were missing)

Section 7 – Performance Improvement Plan

- Revised and new…. **PARS PHASE II (Nov 2019)**

- 7.14 Note 4 removed – (reference to RASMAG/19 endorsement of reduced route spacing, now superseded by PANS-ATM.

- 7.17 reference to regional UAS guidance (expected to be retired by ATM/SG/11) replaced by reference to global guidance provided by UAS Advisory Group.

Section 7 – Performance Improvement Plan

- New …. **PARS Phase IV (Nov 2025)**

- 7.xx1 (NEW) implementation of point merge operations where there is operational benefit

- 7.xx2 (NEW) establishment of airport operations centres (ASBU ACDM B-2/2)

- 7.xx.3 (NEW) performance-based aerodrome operating minima (ASBU APTA-B2/4)

Section 7 – Performance Improvement Plan

- Revised and new …. **PASL Phase II (Nov 2019)**

- 7.29 obsolete Note deleted

Section 7 – Performance Improvement Plan

- New …. **PASL Phase IV (Nov 2025) – ALL NEW**

Aerodrome Operations

7.xx4   Where there is an operational benefit, Remotely operated Aerodrome Air Traffic Services should be implemented, consistent with DATS **B1/1**.

Air Navigation Services

7.xx5   Capability for providing aeronautical meteorological observations, forecast, warning, climatological and historical products (such as aerodrome meteorological forecasts and reports, aerodrome warnings and wind shear warnings) in support of automated decision processes or aids and performance based requirements, involving meteorological information, meteorological information translation, ATM impact conversion and ATM decision support should be enabled, consistent with **AMET-B1/1-3**.

7.xx6   Meteorological information should be disseminated to users consistent with **AMET-B1/1-4**, and in accordance with global and regional guidance material.

Section 7 – Performance Improvement Plan

- New …. **PASL Phase V (Nov 2028) – ALL NEW**

ATS Communications

7.xx7   States should establish FF-ICE (Flight and Flow Information for Collaborative Environment) services consistent with FICE-B2/1 -9. In particular, as a minimum, the following FICE services should be established;

a)   Planning Service -FICE-B2/1

b)   Filing Service- FICE-B2/2

c)   Flight Data Request service- FICE-B2/4

d)   Notification Service- FICE-B2/5

e)   Publication Service- FICE-B2/6

Section 7 – Performance Improvement Plan

- New …. **PASL Phase V (Nov 2028) – ALL NEW**

7.xx8   All ATC units should be equipped with or be able to interface with communication systems appropriate to support the service provided, consistent with:

     a)   **COMI-B2/1 – 3** including Air/Ground ATN/IPS and AeroMACS and Links for non-safety communication; and

     b)   **COMS-B2/1 – 3**, including PBCS approved CPDLC, ADS-C and SATVOICE for domestic and procedural airspace.

7.xx9   States should establish SWIM services consistent with **SWIM-B2/1 to B2/5**.

Section 7 – Performance Improvement Plan

- New …. **PASL Phase V (Nov 2028) – ALL NEW**

Air Traffic Management

7.xx10   All ATC units providing services to international high density aerodromes should operate enhanced surface guidance for pilots and vehicle drivers, comprehensive situational awareness and conflict alerting service for runway operations consistent with SURF-B2/1 – 3.

7.xx11   All aerodromes where ATFM facilities are required, should be served by an integrated system of arrival and departure management sequences into a single runway or dependent runways consistent with **RSEQ-B2/1**.

7.xx12   ACCs and terminal airspaces should enable Dynamic Airspace Configurations for different traffic flow or complex situations, Enhanced Conflict Detection Tools and Conformance Monitoring consistent with **FRTO-B2/1 – 2 and NOPS-B2/2**.

Section 7 – Performance Improvement Plan

- New …. **PASL Phase V (Nov 2028) – ALL NEW**

7.xx13   ACCs should enable, where practicable, large-scale cross-border Free Route Airspace in coordination with adjacent FIRs, and enhanced conflict resolution tools consistent with **FRTO-B2/3 – 4**.

7.xx14   ACCs should enable, where practicable, ATFM for cross-border Free Route Airspace in coordination with adjacent FIRs, and enhanced conflict resolution tools consistent with NOPS-B2/6 and **FRTO-B2/3 – 4**.

7.xx15   All ACCs operating within FIRs where demand may exceed capacity should operate systems that enable, where applicable, collaborative network operations planning, further integration of airport operations and NOPS planning, multi ATFM slot swapping and airspace user priorities consistent with **NOPS-B2/1-5** supporting the integration of time-based management within a flow centric approach, consistent with **TBO-B0/1** and **TBO-B1/1**.

Section 7 – Performance Improvement Plan

- New …. **PASL Phase V (Nov 2028) – ALL NEW**

Air Navigation Services

7.xx16   ATM systems should be supported by:

    a.   digitally-based AIM systems in adherence with ICAO and regional AIM planning and guidance material; and

    b.   integrated aeronautical information service in a SWIM environment in support of enhanced operational ground and air decision-making processes for all phases of flight;

consistent with **DAIM-B2/1-5**.

7.xx17   Integrated Aeronautical meteorological observations, in support of enhanced ATM and airport decision making process, particularly in the near term should be established consistent with **AMET-B2/1-3**.

7.xx18   Integrated meteorological information service in the SWIM environment in support of enhanced operational ground and air decision-making processes, particularly in the planning phase and near-term should be implemented consistent with AMET-B2/4.

Sections 1 – 6 and 8 – 9

- **Section 1 – SCOPE of the Plan**

- Mostly editorial, and changes to support new Phase V

- New document review cycle
  - Seamless ANS Plan in the year following each ICAO Assembly

Sections 1 – 6 and 8 – 9

- **Section 1 – SCOPE of the Plan**

Asia Pacific Document Review Cycle

2023
- Review of APAC Seamless ANS plan
- Inclusion of APAC seamless ANS plan PASL phase IV for APANPIRG/34 approval

2024
- *APAC subsidiary plans - review

2025
- ICAO assembly – Revision to GANP

2026
- Revision to APAC Seamless ANS plan in respond to revised GANP (2025)
- Incorporate Seamless ANS plan into Regional Air Navigation plan Vol III

2027
- *APAC subsidiary plans - review

*APAC subsidiary plans :
- ASIA/PACIFIC Framework for Collaborative ATFM
- ASIA/PACIFIC SAR Plan
- Asia/Pacific Regional Plan for Collaborative AIM
- ASIA/PACIFIC Region ATM Contingency Plan

Sections 1 – 6 and 8 – 9

- **Section 1 – SCOPE of the Plan**

1.12   The review of the Plan during 2019 deletes deleted reference to Phase I as Phase II commenced in November 2019, although the uncompleted elements from Phase I were moved to Phase II. The implementation dates of Phase II PARS and PASL items align with the GANP Block 1 implementation, whereas Phase III is a mid-Block update scheduled for 2022.

x.xx   Due to the unavailability of an implementation reporting mechanism since 2019, Phase II elements are retained in this version of the Plan. With the expected availability of an updated reporting mechanism from 2023/2024, it is envisaged that uncompleted elements from Phase II will be incorporated in Phases II and III will be incorporated in the 2026 update of the Plan.

1.13   The 2019 2023 update of the Plan introduces new ASBU Block 1 modules in Phase IV, and Block 2 modules in Phase V. Phase III and Phase IV of the PARS and PASL implementation framework will also be referenced.

Sections 1 – 6 and 8 – 9

- **Section 2 – Plan Objectives and Development**

- Minor editorial, and changes to support new Phase V

x.xx   The planned migration of this Plan into the Regional Air Navigation Plan Volume III may require a review of the PARS/PASL structure.

Sections 1 – 6 and 8 – 9

- **Section 3 – Executive Summary**

- Minor editorial

- Reference to COVID-19 impact

- Requires update of some economic and traffic data and figures

- Removal of some superfluous information

- Reference to the ICAO APAC Ministerial Conference 2018
  - Beijing Declaration

Sections 1 – 6 and 8 – 9

- **Section 4 – Abbreviations and Acronyms**

- To be reviewed (Secretariat)

Sections 1 – 6 and 8 – 9

- **Section 5 – Background Information**
- Minor editorial
- Removal of some superfluous information
- Addition of new ASBU elements in the priority table (priority TBC)
- Human Performance
  - Retained (had been considered for removal)
- Civil-military retained
- UAS information updated
  - Removes reference to regional guidance (to be recommended for retirement)
  - Hyperlink to the Global guidance

Sections 1 – 6 and 8 – 9

- **Section 6 – Current Information**

- Minor editorial

- Retention of 2019 information pending resumption of implementation reporting

- Removal of some potentially redundant/superfluous information

Sections 1 – 6 and 8 – 9

- **Section 8 – Research and Future Development Possibilities**

- Minor editorial
- Reference to Space-based ADS-B

Sections 1 – 6 and 8 – 9

- **Section 9 – Milestones, Timelines, Priorities and Actions**

- Removal of information now incorporated in ANP Vol II
- Minor editorial

Sections 1 – 6 and 8 – 9

- **Appendices**
- Appendix A - Kansai Statement replaced by Beijing Declaration
- Appendix B – AN-Conf/12 recommendations – proposed delete
- Appendix B – Seamless ANS Principles (prev. Appendix C)
- Appendix C – Capacity expectations (prev. Appendix D) retain
    (WP28 proposed delete)
- Appendix D – List of References (prev. Appendix E) review and retain

- NANP Template
- APSAP Reporting Form

CNS/SG input

Any comments/proposals for amendment from CNS/SG would be appreciated.

By two weeks prior to ATM/SG/11 (2-6 October 2023)

Thank You!