# ATNS ASBU REPORTING INDEX

1. BACKGROUND

1.1. The International Civil Aviation Organization's (ICAO) Global Air Navigation Plan (GANP) developed the Aviation System Block Upgrade (ASBU) global framework primarily to warranty that aviation safety will be maintained and enhanced, that Air Traffic Management (ATM) upgrading programmes are effectively harmonised and that barriers to future aviation efficiency and environmental gains can be isolated at realistic cost.

1.2. ASBUs provide a roadmap to assist Air Navigation Service Providers (ANSP's) in the development of their individual strategic plans and investment decisions with a goal of global aviation system interoperability.

1.3. ASBU designates a set of improvements that can be implemented globally from a defined point in time to improve the performance of the ATM System. ASBUs define operational objectives that address four specific and interrelated aviation Performance Improvement Areas (PIA):

a) Greener airports
b) Globally interoperable systems and data.
c) Optimum capacity and flexible flights (through Global Collaborative ATM)
d) Flexible flights and efficient flight paths (through Trajectory Based Operations).

1.4. Each PIA has the specific blocks associated to it and the individual modules for each block as shown in figure 1 below.
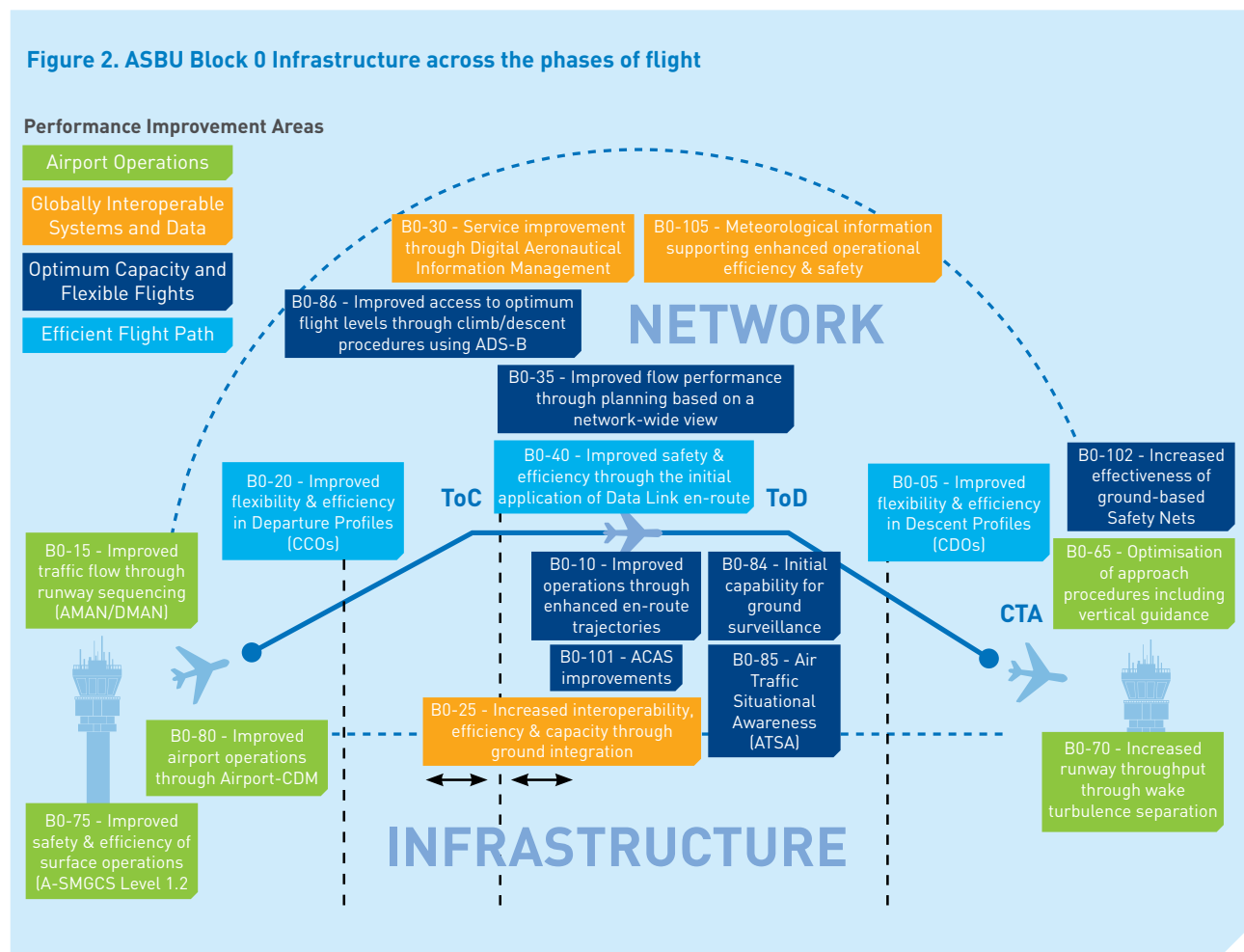

Figure 1. ASBU Framework Implementation Plan
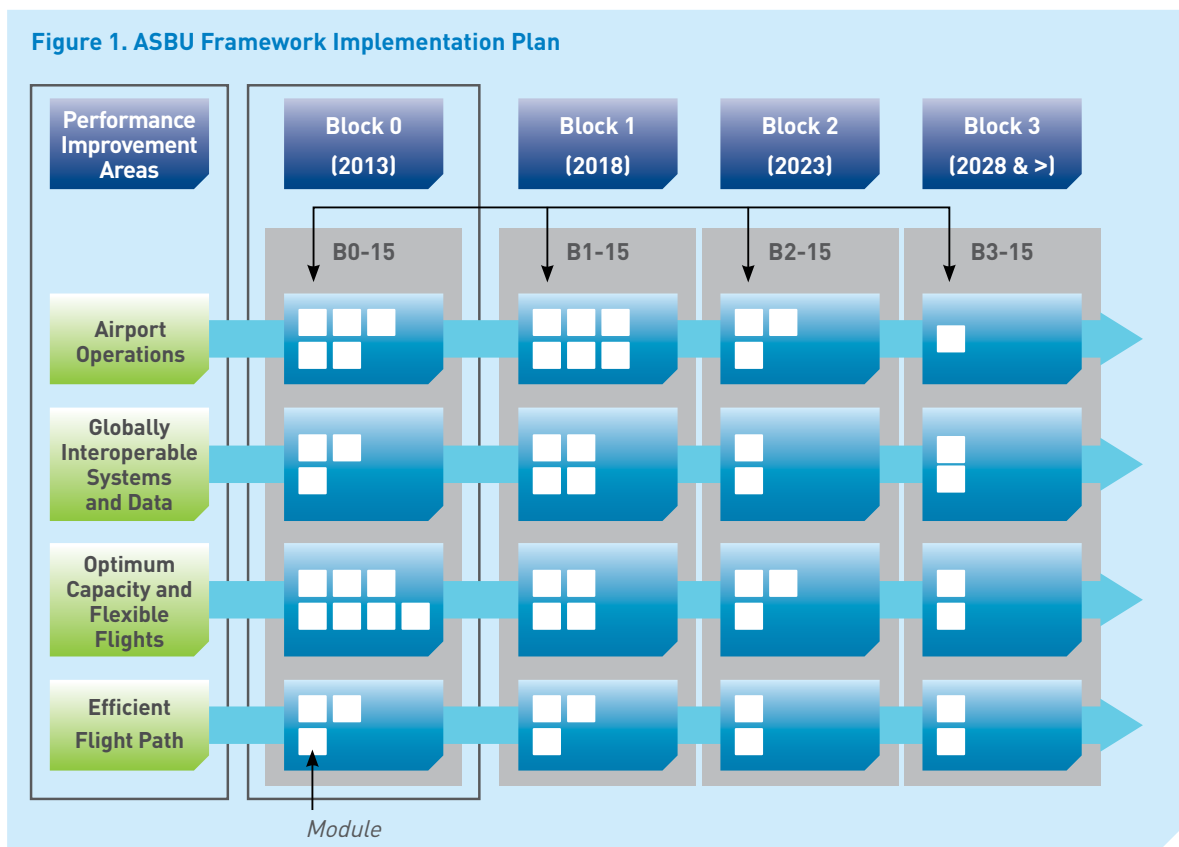
1.5. ASBU contains a package of capabilities (called modules), each having the following important qualities:

a) Clearly defined measurable operational improvements with appropriate metrics to determine success
b) Necessary equipment and/or systems in aircraft and on the ground along with an operational approved or certification plan
c) Standards and procedures for airborne and ground systems
d) Positive business case over a clearly defined period of time

1.6. The ASBU framework defines the future Communication, Navigation and Surveillance (CNS) /ATM system upgrade (CNS/ATM Technology Roadmap) that will efficiently manage traffic demand and enhance safety, capacity, predictability, security, effectiveness, and environmental position.

2. ATNS STATUS REGARDING ASBU

2.1. Figure 2 below shows the ASBU Block 0 Infrastructure that needs to be implemented as a foundation for future Blocks (i.e Block 1, 2 & 3).

Figure 2. ASBU Block 0 Infrastructure across the phases of flight

Performance Improvement Areas

- Airport Operations
- Globally Interoperable Systems and Data
- Optimum Capacity and Flexible Flights
- Efficient Flight Path

B0-30 - Service improvement through Digital Aeronautical Information Management

B0-105 - Meteorological information supporting enhanced operational efficiency & safety

B0-86 - Improved access to optimum flight levels through climb/descent procedures using ADS-B

NETWORK

B0-35 - Improved flow performance through planning based on a network-wide view

B0-40 - Improved safety & efficiency through the initial application of Data Link en-route

B0-20 - Improved flexibility & efficiency in Departure Profiles (CCOs)

ToC

ToD

B0-05 - Improved flexibility & efficiency in Descent Profiles (CDOs)

B0-102 - Increased effectiveness of ground-based Safety Nets

B0-15 - Improved traffic flow through runway sequencing (AMAN/DMAN)

B0-10 - Improved operations through enhanced en-route trajectories

B0-84 - Initial capability for ground surveillance

B0-65 - Optimisation of approach procedures including vertical guidance

B0-101 - ACAS improvements

B0-85 - Air Traffic Situational Awareness (ATSA)

CTA

B0-80 - Improved airport operations through Airport-CDM

B0-25 - Increased interoperability, efficiency & capacity through ground integration

B0-70 - Increased runway throughput through wake turbulence separation

B0-75 - Improved safety & efficiency of surface operations (A-SMGCS Level 1.2

INFRASTRUCTURE

2.2. ATNS is currently focusing on the implementation of ASBU Block 0 as its short-term CNS/ATM technology plan. Table1 blow show the ATNS current ASBU Block 0 implementation status

Table 1. Summary of ATNS ASBU Block 0 Status Quo

Code	Abbr	Description	Status
B0-65	APTA	Airport Accessibility	Need collaboration
B0-70	WAKE	Wake Turbulence Separation	On track
B0-15	RSEQ	Runway Sequencing	On track
B0-75	SURF	Surface Operations	On track
B0-80	ACDM	Airport Collaborative Decision Making	Need collaboration
B0-81	RATS	Remote Air Traffic Services	Under research
B0-25	FICE	FF/ICE	On track
B0-30	DATM	Digital Aeronautical Management	On track
B0-31	SWIM	System Wide Information Management	On track
B0-105	AMET	Advanced Meteorological Information	On track
B0-10	FRTO	Free Route Operations	On track
B0-35	NOPS	Network Operations	On track
B0-84	ASUR	Alternative Surveillance	On track
B0-85	ASEP	Airborne Separation	Not for ANSP
B0-86	OPFL	Optimum Flight Levels	On track
B0-101	ACAS	Airborne Collision Avoidance Systems	Not for ANSP
B0-102	SNET	Ground-Based Safety Nets	On track
B0-05	CDO	Continuous Descent Operations	On track
B0-40	TBO	Trajectory-Based Operations	On track
B0-20	CCO	Continuous Climb Operations	On track
B0-90	RPAS	Remotely Piloted Aircraft Systems	Need collaboration

Legend:
- On track
- Need collaboration
- Not for ANSP
- Under research