International Civil Aviation Organization

WORKING PAPER

A38-WP/195[1]
TE/73
29/8/13
Revised
20/9/13

ASSEMBLY — 38TH SESSION

TECHNICAL COMMISSION

Agenda Item 35: Air Navigation — Implementation Support

CANSO'S EFFORTS IN SUPPORT OF ASBU IMPLEMENTATION

(Presented by CANSO)

EXECUTIVE SUMMARY

In support of global harmonisation and interoperability in ATM, the fourth edition of the Global Air Navigation Plan (GANP, Doc 9750) provides a global planning framework for incremental operational improvements through a new methodology called the aviation systems block upgrades (ASBUs.) As the global voice of ANSPs and a key contributor to the collaborative development effort of the ASBU methodology, CANSO has been actively engaged in socializing the ASBU concept among its Membership, and in the development of guidance material, tools and training designed to assist air navigation service providers (ANSPs) and other stakeholders in the implementation of the ASBUs.

Action: The Assembly is invited to:

a) request the planning and implementation regional groups (PIRGs), States, ANSPs and operators to establish priorities and targets consistent with the GANP objectives as well as the needs of each region;
b) recognize the value of the CANSO-proposed Needs and Dependency Analysis (NDA) methodology to assist in the establishment of priorities and targets; and
c) recognize the value of CANSO-developed training in support of ASBU implementation that includes the NDA, business case development and CBA.

1. INTRODUCTION

1.1 The proposed 4th edition of the Global Air Navigation Plan (GANP, Doc 9750), as presented during the 12th Air Navigation Conference (AN-Conf/12), introduces the Aviation System Block Upgrades (ASBU) methodology and its technology roadmaps for Communications, Navigation and Surveillance (CNS), Information Management (IM) and Avionics requirements in support of a harmonised global air navigation system.

[1] Language versions provided by CANSO.

1.2 During the CANSO ATM Summit and 17th AGM held in June 2013, members approved Vision 2020 – a new comprehensive strategy and work plan to transform global air traffic management (ATM) performance and deliver seamless airspace globally. This document recognizes the GANP and its ASBU methodology as the global air navigation policy and planning framework for the aviation community. And, CANSO continues to promote a better understanding and recognition of the benefits to ANSPs in using the ASBU methodology for their planning and implementation activities.

1.3 CANSO has further undertaken a number of other actions in support of ASBU implementation, including the development of guidance material, tools and training. As a contributor to the development of the ASBU framework, CANSO continues to promote a common understanding of the ASBU framework and support its implementation by air navigation service providers (ANSPs) in their ATM modernisation programmes.

2. DISCUSSION

2.1 The ASBU framework provides an evolutionary sequence of improved capabilities that are well-defined, scalable and cost effective. ANSPs will need to commit to implementation milestones and make the necessary investment decisions, and must do so in a synchronized manner. ANSPs must therefore consider carefully a number of factors in order to implement the necessary ASBU modules and their capabilities. The geographic location of an ANSP is perhaps the most important consideration for the selection of the modules. ANSPs need to plan globally, yet implement regionally. Thus, how ANSPs are to proceed with module capability selection, implementation and transition in order to deliver the desired operational benefits is a critical issue.

2.2 In follow-up to the AN-Conf/12 discussion on decision-making tools, CANSO has recommended the establishment of ASBU priorities and targets consistent with the GANP objectives as well as the needs of each region. CANSO has developed a Needs and Dependency Analysis (NDA) for this purpose, to support ANSPs in their transition and implementation of the ASBUs. An overview of the NDA is presented in the Attachment.

2.3 CANSO continues to collaborate and coordinate, on behalf of its membership, with ICAO and industry groups to identify assistance needs, training and development of guidance material. CANSO's Operations Standing Committee (OSC) has issued an "ASBU 101" guidebook, entitled *Introduction to Aviation System Upgrades (ASBU) – Modules Selection, Implementation, Strategic Planning and Financing*, which ensures an improved understanding on the use of the ASBU framework. The guidebook introduces the ASBU framework, global harmonization principles, performance standards, ASBU implementation challenges, and the processes of Needs and Dependencies Analysis (NDA), Business Case and Cost Benefit Analysis (CBA).

2.4 CANSO has also embarked on the creation of a training programme for ASBU implementation, complete with case studies and exercises. The course, called *Decision Makers' Methodology and Best Practices for Aviation System Block Upgrades (ASBUs) Implementation*, is designed to promote a common understanding of the ASBUs among Civil Aviation Authorities (CAAs), ANSPs, and other industry stakeholders involved in the planning and transition of their aviation system modernization programs. It provides a thorough understanding of the key areas of ASBU implementation planning, including the framework and objectives of the Block Upgrades. The course introduces the processes of the NDA, business case development, and CBA. Effective implementation strategies that

ensure expedient and cost-effective results are also covered. The course answers a number of questions, inter alia:

a) how do decision makers proceed with selecting, prioritizing and implementing the ASBU capabilities?

b) what are the causes of current ATM system deficiencies and how to overcome these deficiencies?

c) what are the technology gaps and interdependencies between current capabilities and the ASBU Blocks 0 and 1 capabilities? Are demand, complexity, interfacing, and coordination with neighbouring flight information regions (FIRs) considered as NDA variables?

d) what CBA approach and performance metrics are needed to support ASBU implementation based on the business case for individual ASBU capabilities? How will investment enhance performance in terms of benefits (considering societal factors such as: time/fuel savings for users, improved productivity for providers, or reduced noise and emissions for communities)?

e) how can an effective business case be built, considering information on product and services, markets, employees, technologies, capital/financing, and contingency plans?

f) what are some financing incentives for providers and users of ground systems and avionics (in terms of demand for services delivery in congested airspace with heavy traffic flows)?

g) what resources are needed for acquisition of ASBU capabilities?

h) how can decision points for ASBU implementation be established as part of a schedule and how is implementation progress monitored?

2.5 The CANSO OSC has further provided ASBU-related presentations at a number of ATM industry meetings and events:

a) CANSO Africa ATM Operations Seminar/Workshop, Cape Town, South Africa – October 2012

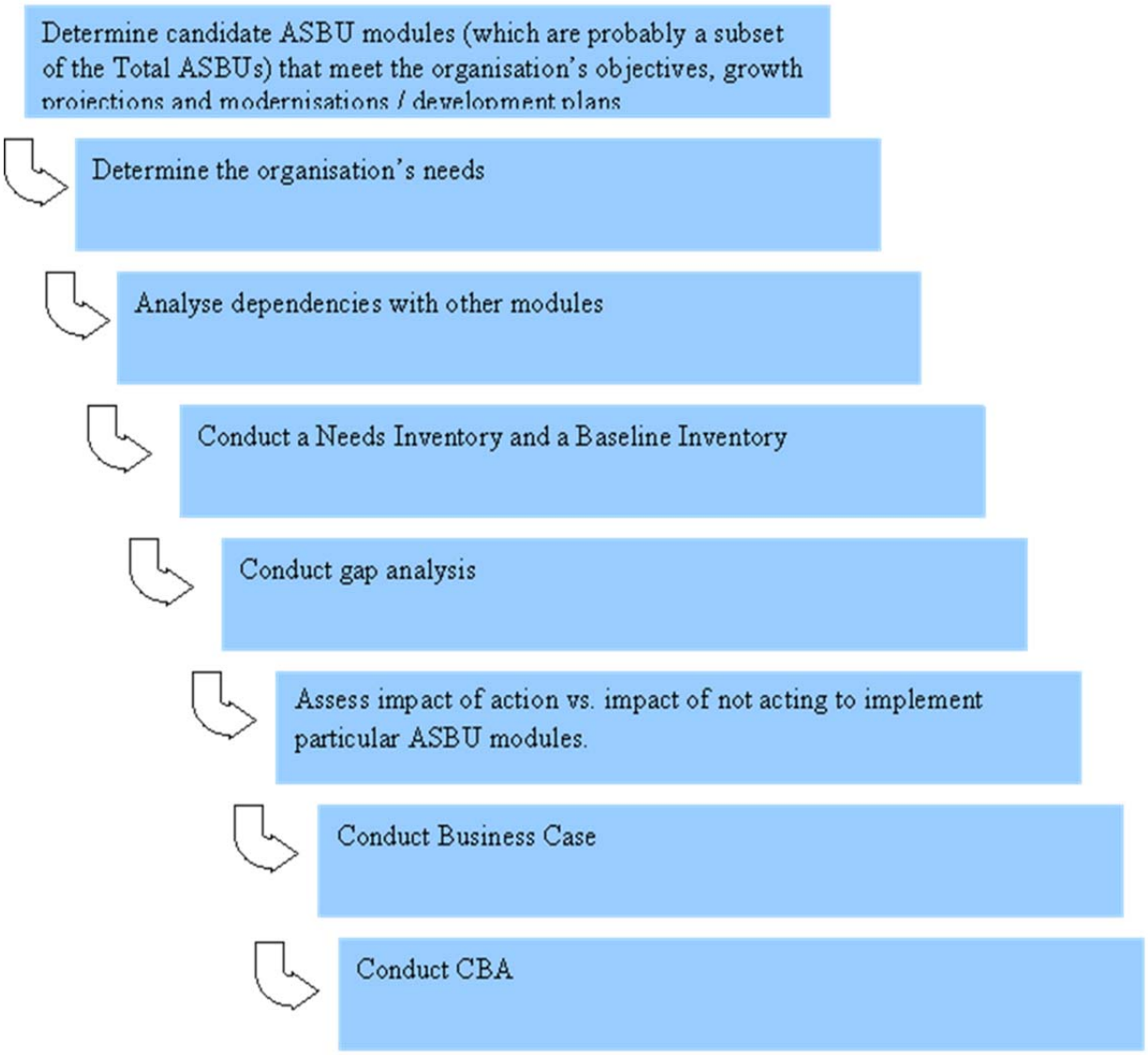
b) CANSO OSC Conference, Brisbane, Australia – November 2012

c) World ATM Congress 2013, Madrid, Spain – February 2013

d) CANSO Global ATM Summit & 17th Annual General Meeting (AGM), Willemstad, Curacao – June 2013

2.6 The Advanced Air Traffic Management (ATM) Techniques Symposium and Workshops, which will be convened by ICAO in partnership with ACI, CANSO and IATA from 4 to 6 November 2013, provides another opportunity to demonstrate the operational benefits that ASBU implementation can deliver in terms of fuel saved and reduced emissions, and identify training requirements in support of implementation.

ATTACHMENT



— END —