MULTI-DISCIPLINARY WORKING GROUP
ON THE ECONOMIC CHALLENGES LINKED TO THE IMPLEMENTATION OF THE AVIATION SYSTEM BLOCK UPGRADE
(MDWG-ASBUs)

FIRST MEETING

Montréal, Canada
18 to 20 February 2014

REPORT

(24 pages)

HISTORY OF MEETING

REPORT OF THE MEETING

1. INTRODUCTION

1.1. The first meeting of the Multi-disciplinary working group on the economic challenges linked to the implementation of the aviation system block upgrades (MDWG-ASBU) was held at ICAO Headquarters in Montréal, Canada, from 18 to 20 February 2014.

1.2. The Director of the Air Navigation Bureau (ANB), Ms. Nancy Graham welcomed participants and opened the meeting at 0930 hours. She reminded participants of the *Global Air Navigation Plan* (Doc 9750) and its importance when considering the modernization of airspace and highlighted the need to ensure equality with regard to the incentives that were expected to accompany the modernization process. The meeting noted that policies and mature air traffic management (ATM) equipment existed in Europe and North America and the need for the working group to concentrate on fast growing regions such as Asia, Latin America, Middle-East and Africa.

1.3. On behalf of Mr. Boubacar Djibo, Director of the Air Transport Bureau (ATB), Ms. Narjess Abdennebi, Chief of the Economic Analysis and Policy (EAP) Section, also welcomed participants and remarked that the modernization of ATM infrastructure was a priority as the number of departures were expected to reach approximately 60 million by 2030, double the current number of departures. She advised of the need for investment by all aviation stakeholders (including air navigation services providers (ANSPs), airports, aircraft manufacturers and airlines) in order to achieve seamless airspace and interoperability between users.

1.4. Ms. Abdennebi and Mr. Richard Macfarlane, Chief of the Integrated Infrastructure Management (IIM) Section in ANB, closed the meeting.

1.5. The findings of the Multi-disciplinary working group will be presented to the ANC in the fall of 2014 and to the fifth joint meeting of the Airport Economics Panel (AEP) and Air Navigation Services Economics Panel (ANSEP) (AEP/ANSEP/5, to be held from 18 to 22 May 2015) to determine if and how existing guidance can be amended and to determine whether existing practices are consistent with ICAO's principles on non-discrimination.

2. ATTENDANCE

2.1. The meeting was attended by members, advisors and observers nominated by thirteen Member States and twelve international and regional organizations, as presented in **Appendix A**. A total of fifty one participants attended the meeting.

3. OFFICERS AND SECRETARIAT

3.1. Ms. Narjess Abdennebi and Mr. Richard Macfarlane were co-secretaries of the meeting.

3.2. Mr. Jérôme Simon, Infrastructure Manager, Mr. Antonin Combes, Junior Professional Officer and Mr. Weihua Wan, all belonging to the EAP Section, served as advisors to the meeting.

4. EXISTING BACKGROUND

4.1. Air transport is a fast growing industry; air traffic growth expands two-fold once every fifteen years. The challenge presented by this industry growth is to achieve both safety and operational improvements. ICAO's approach to ensure the safe and orderly development of airspace is contained in Doc 9750.

5. TERMS OF REFERENCE

5.1. The working group will be composed of experts from States, international organizations and industry, more specifically, those involved in air traffic management (ATM) modernization programmes in which the notion of incentives is applied.

5.2. The working group will actively assist the Secretariat in the work required as follow-up to the *Sixth Worldwide Air Transport Conference* (ATConf/6), Conference Recommendation 2.7/1 b) refers, and report on its progress to the Council during the first quarter of 2015, as follows:

a) develop a benchmark of current best practices for similar approaches in the aviation system block upgrade implementation and/or others ATM modernization programmes;
b) consider the definition and applicability of economic and operational incentives as well as mandates. In doing so, consider the aspects of equipage, training, certification and operational approval, etc.;
c) determine the parameters and definitions of access, equity and service priority and financial incentives policies;
d) consider how the policies might be applied in practice at a State level or regional level;
e) evaluate to the extent possible the effectiveness of these policies;
f) consider how they could be reflected in existing ICAO policies and other guidance material; and
g) present the economic and financial findings to the Airport Economics Panel and the Air Navigation Services Economics Panel (AEP-ANSEP/5) to determine if and how the existing guidance could be amended to incorporate the findings. It is noted that, determining whether such practices are consistent with ICAO's policy on non-discrimination, is necessary.

6. AGENDA OF THE MEETING

6.1. The agenda of the meeting focussed on presentations from States, international organizations and industry stakeholders. The presentations were as follows:

Day	Title of presentation	Presented by
Day 1	Economics of the Modernization of the Aviation System	Narjess Abdennebi, Air Transport Bureau, ICAO
	Introduction to the ASBUs	Richard Macfarlane, Air Navigation Bureau, ICAO

Day 1	The modernisation of the European ATM system, based on Single European Sky ATM Research (SESAR) and in relation to the ICAO Global Air Navigation Plan (GANP)/ASBU	Marinus De Jong, Policy officer Single European Sky, European Commission
	NextGen, equipage incentives and links to the ASBU model	Steve Bradford, Chief Scientist for NextGen, Federal Aviation Administration (FAA)
	Airports Council International (ACI) point of view	Rafael Echevarne, Director Economics, ACI
	Civil Air Navigation Services Organization (CANSO) point of view	Eugene Hoeven, Director ICAO Affair, CANSO
	International Air Transport Association (IATA) point of view	Rob Eagles, Director ATM Infrastructure, IATA
	Access and Service Priority: The Business Aviation View	Kurt Edwards, Director General, International Business Aviation Council (IBAC)
	International Federation of Airline Pilots' Association (IFALPA) vision for implementation of the ASBUs	Carole Couchman, Senior Technical Officer, IFALPA
Day 2	Presentation on Public Private Partnership (PPP) and Cost-Benefit Analysis	International Transport Forum (ITF)
	Some further thoughts for consideration during deliberations	Farid Zizi, President, ICAO Air Navigation Commission (ANC)
	Indian ANS initiatives in line with ASBUs	R. Sridhar and M.K Nelli, Joint General Managers, Airports Authority of India
	FAS – the United Kingdom's approach to implementing SESAR: successes and challenges	Amanda Downing, Economic Policy Advisor, CAA
	Are general aviation requirements being adequately considered?	Frank Hofmann, International Council of Aircraft Owner and Pilot Association (IAOPA), Representative to ICAO
Day 3	Review of the draft report	

7. WORKING ARRANGEMENTS

7.1. The working group met as a single body. Discussions in the meeting were conducted in English as were all presentations. This report of the meeting will be issued in English only.

7.2. The presentations listed above, as well as other meeting documentation are available on the MDWG-ASBU secure portal website under *Meeting Documentation - MDWG-ASBU/1 from 18 to 20 February 2014* *https://portal.icao.int/MDWG-ASBU/Pages/default.aspx*.

8. WORKING GROUPS

8.1. A list of the working groups established during MDWG-ASBU/1 appears in **Appendix B**.

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1. Economics of the Modernization of the Aviation System

(Presented by Narjess Abdennebi, Air Transport Bureau, ICAO)

1.1. DISCUSSION

1.1.1. Existing ICAO policies and guidance can be applied for the funding of infrastructure, including implementation of a new generation of air navigation systems. However, a number of developments have taken place regarding financing issues of the air transport system. These issues were considered both at the Twelfth Air Navigation Conference (AN-Conf/12), held in Montréal in November 2012, and at the Sixth Worldwide Air Transport Conference (ATConf/6), held in Montréal in March 2013. The economic challenge of Air Traffic Management (ATM) modernization is related to the requirement of a significant number of investments that need to be secured over a long period of time. ICAO's Policies and guidance on Charges for Airport and Air Navigation Services provide more guidelines regarding the incentive policy and the instruments that incite a particular course of action, such as the "differential charges". Incentives may be used in the context of economic pricing, however, as a premise, States should ensure that, where airports or air navigation service providers (ANSPs) introduce incentives for users, the incentive schemes meet the principles presented in ICAO's Policies on Charges for Airport and Air Navigation Services (Doc 9082).

1.1.2. Although the existing ICAO policies regarding economics are comprehensive and flexible enough, it has been highlighted that they are tailored for the infrastructure management of airports and ANSPs, while one of the major challenges of the Multi-disciplinary working group on the economic challenges linked to the implementation of the aviation system block upgrades (MDWG-ASBUs) is to provide policies and guidance to encourage investment in the aviation system.

1.2. CONCLUSION

1.2.1. Regarding the timeframe of the MDWG-ASBUs' deliverables, it will need to take into account the fact that the next joint Airport Economics Panel (AEP)/Air Navigation Services Economics Panel (ANSEP) meeting is planned for May 2015 and that the *Global Air Navigation Plan* (Doc 9750) (GANP) will have to be revised for the next ICAO Assembly in 2016 by notably including cross-references as outcomes of the MDWG-ASBU work. The lead-up work for possible inclusion in the GANP would then necessarily need to be ready at the end of 2014, as the ICAO Council has to approve the initial draft of the update of the GANP in June 2015 (preceded by internal preparation and advices of ANC) after which States and international organisations will be given the opportunity to comment.

2. Technical presentation of ASBUs

(Presented by Richard Macfarlane, Air Navigation Bureau, ICAO)

2.1. DISCUSSION

2.1.1. Richard Macfarlane presented his item on the technical aspects of the ASBUs. This presentation focussed on the rationale, the methodology and the results of the ASBUs in the GANP and was provided as a baseline for the meeting. Mr. Macfarlane also provided a situation report on ICAO's current stance in the development of the work programme, the modernisation of the panels of the Air Navigation Commission (ANC) and the restructuring of the Air Navigation Bureau (ANB) to accommodate the new work programme of the ASBUs as they were approved in the GANP.

2.1.2. During the presentation, there was discussion about the work of the Technical Team and the oversight of the Future Aviation Challenge Team in the process and some concern about the timelines for the next review of the GANP as there seemed to be a common understanding that some of the work of the MDWG-ASBUs would find its way into the next edition of the GANP. There was also some quite lengthy discussions on the implementation aspects of the ASBUs as these would likely be uppermost in people's minds as they discussed the potential use of operational and financial incentives later in the meeting. The briefing was also very clear to note that the generation of the ASBUs had a long history and drew from such seminal documentation as the Operational Concept document, the Operational Requirements document and the Global Performance of the ATM System document.

2.2. CONCLUSION

2.2.1. This presentation served as a necessary foundation for the meeting in having all participants aware of the genesis, the content and the scope of the ASBUs ahead of their discussions later in the meeting.

3. The modernisation of the European air traffic management (ATM) system, based on Single European Sky (SES)/SESAR and in relation to the ICAO GANP/ASBU

(Presented by Marinus De Jong, Policy officer Single European Sky, European Commission)

3.1. DISCUSSION

3.1.1. Europe's strategy for airspace modernization is the Single European Sky (SES) project. Its framework includes policy and regulation to enhance capacity, efficiency, safety and environmental benefits of the air traffic management (ATM) global system. SESAR is part of the SES project and established its roadmap "ATM Master Plan". This plan is composed of three phases:

a) definition;
b) development; and
c) deployment (including essential considerations for successful, timely and efficient deployment).

3.1.2. The main objective remains wide cooperation between Member States. Implementation of SES relies on five pillars:

a) performance;
b) safety;
c) technology;
d) airports; and
e) human factors.

3.1.3. The GANP and the European ATM Master Plan are complementary documents. The European approach based on SES and SESAR aims at enabling European Union skies to handle three times more traffic, improving safety by a factor of ten, reducing the environmental impact per flight by 10 per cent and cutting ATM costs by 50 per cent. The European Commission (EC) relies on ICAO policies and guidance materials (incentives, Cost Benefit Analysis (CBA) for ATM concepts and techniques) and update/complement of existing documents.

3.1.4. The EC suggested that ICAO specify deliverables of the MDWG-ASBUs linked to the next GANP update (content and timing) and provide a structure by which participants would know what to do and when.

3.1.5. Discussions following the EC presentation insisted on the need for a mechanism for coordination (both at regional and sub-regional levels) and a solid business case.

3.1.6. The EC anticipates that ICAO will work on policy and guidance material (economic and operational incentives, CBA: principles, but each CBA is to be developed where new ATM concepts and techniques are implemented) based on principles and pragmatic approach and best practices.

3.2. CONCLUSION

3.2.1. The EC recommends that the MDWG's efforts be put in policy and guidance to avoid new standards and recommended practices (SARPs) when not required.

3.2.2. The EC does not want ICAO to develop a global CBA but rather principles that would enable each region/sub-region to build its own CBA.

4. NextGen, equipage incentives and links to the ASBU model

(Presented by Steve Bradford, Chief Scientist for NextGen, Federal Aviation Administration, FAA)

4.1. DISCUSSION

4.1.1. Quoting the (NextGen Implementation Plan) NGIP-2009, the Federal Aviation Administration (FAA) proposed moving from the concept of "first-come, first-served" to "best-equipped, best-served". Meanwhile, an operational transition plan will accommodate all types of operators with varying levels of equipage, while maximizing overall system performance and enhancing safety.

4.1.2. According to the Modernization and Reform Act of 2012 Section 222, the FAA produced Operational Incentives in 2013 and set a 3-classes framework, including Non-Interfering Service Improvement, Operational-Positive Preference and Societal-Positive Preference. By defining two dimensions, the FAA classifies operational incentives in three types. In this model, as more aircraft become capable, aggregate benefits to the operators and system will increase.

4.2. CONCLUSION

4.2.1. The FAA presented examples about advantages of Datacomm, automatic dependent surveillance — broadcast (ADS-B) and performance-based navigation (PBN), and showed the status of equipage in the United States.

5. ACI'S point of view
(Presented by Rafael Echevarne, Director Economics, ACI)

5.1. DISCUSSION AND CONCLUSION

5.1.1. The Airports Council International (ACI) stressed the fundamental importance of the airports, and indicated that efficiencies gained in the air should continue on the ground. There are three challenges that airports are facing: capacity constraints, multi-billion dollar investments needed in infrastructures and the fundamental issue, economic sustainability. ASBUs should include new-generation infrastructure planning and proven solutions should be provided. Together with collaborative decision making (CDM), ASBUs should be translated into airport capacity maximization and efficient infrastructure development.

6. CANSO's point of view
(Presented by Eugene Hoeven, Director ICAO Affairs, CANSO)

6.1. DISCUSSION

6.1.1. The Civil Air Navigation Services Organisation (CANSO) evoked the concept of seamless air navigation services (ANS) and explained that performance should be driven by cooperation amongst ANSPs (operational and economic efficiency and best practices) and that economic oversight was a key element to drive value. CANSO qualified the principles of access and equity and gave the components of service delivery. CANSO also explained that the support of business case and CBA was needed. CANSO presented the delivery components relevant to service priority (managing the ATM infrastructure deploying ATM Services, cost effectiveness and asset management).

6.2. CONCLUSION

6.2.1. CANSO expressed the need to clarify the meaning of service prioritization. Existing ICAO policies can be complemented with practical guidance from best practices.

7. IATA's point of view
(Presented by Rob Eagles, Director ATM Infrastructure, IATA)

7.1. DISCUSSION AND CONCLUSION

7.1.1. The International Air Transport Association (IATA) provided the group with the main principles of services policy and described the different levels of service priority from "initial equipage" to "stable". IATA explained how incentives will play a major role in reaching the desired capability of aircraft. IATA stated that incentives should be developed within the framework of ICAO including GANP recommendations.

8. Access and Service Priority: The Business Aviation View
(Presented by Kurt Edwards, IBAC DG)

8.1. DISCUSSION

8.1.1. The International Business Aviation Council (IBAC) defined its policy manual based on a fair and equitable access to airspace and airports by all classes of users. It should also be borne in mind that the most effective approach will vary based on the specific capability and the location or airspace where it is deployed.

8.2. CONCLUSION

8.2.1. IBAC concluded by saying that the implementation leads to benefits related to "most capable, best served" where operational enhancements and efficiencies can be implemented in a manner that maintains current access to airspace and airports for operators of varying performance levels.

9. IFALPA's vision for implementation of the ASBUs
(Presented by Carole Couchman, Senior Technical Officer, IFALPA)

9.1. DISCUSSION

9.1.1. The ASBUs implementation needs to be coordinated worldwide and incentives need to be in place to ensure deployment for both air and ground services. Global coordination, harmonization and interoperability are key elements for the success of ATM modernization. The International Federation of Air Line Pilots' Associations (IFALPA) encouraged all participants to develop a realistic timeline with a view to enabling adequate training and familiarization.

10. CONCLUSIONS FOR THE DAY

10.1. All participants shared the same vision of prioritization but the working group needs to work on the clarification of the definitions.

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11. PPP and Cost-Benefit Analysis
(Presented by the International Transport Forum)

11.1. DISCUSSION 1 : CBA AND TRANSPORT

11.1.1. The International Transport Forum (ITF) was invited to participate and bring its expertise on Cost-Benefit Analysis (CBA) and Private-Public-Partnerships (PPPs) and to enable all participants to understand the principles and objectives of a CBA and have examples of PPPs.

11.1.2. ITF said that decision-makers need tools to make informed choices in the context of a public policy. The generic measure is social welfare and its maximization. CBA is one such tool, which has strong underpinnings in economic theory. CBA produces a couple of simple metrics like the Net Present Value (NPV) the Internal Rate of Return (IRR) or the cost/benefit ratio(C/B). But the CBA has some drawbacks such as the technical boundary and communication. The general public hardly understands the internal rate of return and C/B ratio, and it would be much better if CBA could consider indirect advantages. CBA is still a core tool for decision-making. The analysis is performed by people, so inevitably some measure of subjectivity will be present. Nevertheless, the expected subjectivity in a CBA is still lower than other analysis (e.g. multi criteria analysis).

11.2. DISCUSSION 2 : PPPs in Aviation – The example of SESAR and Clean Sky

11.2.1. ITF reminded the legal basis of SESAR and the three phases of the project: definition (financed by the European Union (EU) and European Organisation for the Safety of Air Navigation (EUROCONTROL), development (financed by EU and industry) and deployment (financed by EU and industry). ITF described two examples of PPPs in ATM modernizations: the first one for ATM (SESAR) and a second one for aeronautics (Clean Sky). ITF stressed the key role of Member States and the industry in the follow-up of the project whilst the European Commission exercises an active coordinating role.

11.3. CONCLUSION

11.3.1. The audience agreed that a CBA was a necessary tool to evaluate the impact of ATM-related investments and that it was essential to perform such an analysis before any investment.

12. Some further thoughts for consideration during your deliberations
(Presented by Farid Zizi, President, ICAO Air Navigation Commission)

12.1. DISCUSSION

12.1.1. This presentation aimed at bringing some answers to the question: *how can an individual investment contribute to a global benefit*?

12.1.2. The presentation started with considerations about how to have full benefits and gain efficiency of the actual ATM infrastructure. How can an individual investment contribute to a global benefit? Factors of performance that can be derived from the implementation and recommendations of the *Global Air Navigation Plan* (Doc 9750) (GANP) are the key elements for success. Member States should work on their own grid following the GANP recommendations and adapt it to regional particularities. Member States were urged to find a solution to face the increase of traffic because time might not be sufficient. In this context, it is essential to keep the objective in mind to make the right choices at the

present time. It is therefore important to work collaboratively to reach a global result. The payer is not necessarily the one who benefits from the investment therefore a collocation is an essential element to achieve ATM modernization.

12.1.3. The incentives must be put in place at the appropriate moment to be efficient. It is important to implement the modernization at a regional level and then to adapt things in the same region and keeping in mind interoperability. A major part of the technology needed for ATM modernization is described in the GANP: it contains answers to most of ATM modernizations issues. In this regard, Member States were encouraged to contribute to the next version of the GANP.

12.1.4. A thorough analysis of the GANP and ASBUs was proposed towards levels of decision for implementation, criticality of the modules and the relation between performance reached by means of the associated capability towards level of equipage.

12.2. **CONCLUSION**

12.2.1. Participants agreed that the GANP contained the essential technical framework for ATM modernization and global decision to be taken as ASBUs implementation has a global impact which could benefit from material related to incentivization . This should be the starting point and prime focus of the MDWG.

13. **Indian ANS initiatives in line with ASBUs**
(Presented by R. Sridhar and M.K Nelli, Joint General Managers, Airports Authority of India)

13.1. **DISCUSSION**

13.1.1. As a participating State, India was invited to present “Indian ANS initiatives in line with ASBUs” to inform all participants of a concrete business case of ASBUs implementation.

13.1.2. Based on GANP for interoperability and global harmonization, the Indian ANS strategic plan, with its initiatives focused on global harmonization through sub-regional collaboration, is in line with ASBU block zero modules and Asia-pacific seamless ATM plan elements. The main ANS initiatives are route optimization, ADS-B/RADARs, ATM automation, GAGAN, etc. India highlighted the benefits in terms of fuel savings through implementation of Upper Airspace harmonisation in Chennai flight information region (FIR).India encourages operations supported by technology, qualified personnel and systems on the ground and in the air towards best operational benefits. India considers “ best equipped best served” model. India considers Return On Investment (ROI) and the social impact while taking up ANS/Airport Modernisation plans.

13.2. **CONCLUSION**

13.2.1. India highlighted the need for cooperation beyond the boundaries towards global harmonization.

14. FAS – the United Kingdom's approach to implementing SESAR: successes and challenges *(Presented by Amanda Downing, Economic Policy Advisor, CAA)*

14.1. DISCUSSION

14.1.1. Starting with the introduction of *Future Airspace Strategy* and its deployment plan, the United Kingdom put forward its principles for incentive structures, which includes not business as usual, significant benefit, under direct control, measurable, definable, appropriate risk level and non-distorting. The United Kingdom is using CBA to help decision making, which provided evidence and justification for CAA use of incentives to drive implementation of key ATM modernisation programmes. They presented its own principles for incentive structures that complement the four high-level principles for safeguarding users against potential negative effect of differential charges mentioned in the *Manual on Air Navigation Services Economics* (Doc 9161). To conclude, the United Kingdom considered that right technology or equipment is only a small part of the solution, which should also include facilitation and governance structures, industry agreed deployment plan, programme management approach and a mix of financial and non-financial incentives.

14.2. CONCLUSION

14.2.1. Having the right technology or equipment is only a small part of the solution in the implementation of the ASBUs. Other key elements need to be considered such as the need for a CBA and the necessity to use a mix of financial and non-financial incentives.

15. Are general aviation requirements being adequately considered? *(Presented by Frank Hofmann, IAOPA Representative to ICAO)*

15.1. DISCUSSION

15.1.1. The International Council of Aircraft Owner and Pilot Associations (IAOPA) presented the views of general aviation in the context of ASBU implementation.

15.1.2. IAOPA considered that ASBU implementation should benefit all users of the system. As a result, controlled airspace should decrease with the introduction of the ASBUs, and mixed equipage will always be a reality. Other factors such as the cost of maintaining high-tech equipment, the effect on pilot proficiency and pilot and mechanic numbers of reduced fleet size should also be taken into consideration.

15.2. CONCLUSION

15.2.1. IAOPA concluded by saying that investment capacities of all airspace users should be taken into account.

16. WORKSHOP

16.1. Discussion

16.1.1. The meeting reviewed the themes on service priorities that had been put forward in presentations over the first two days. Common thoughts included: interoperability; harmonization; and,

collaboration. It was noted that such policies could be aligned with strategic objectives and that performance should be brought into the equation.

16.1.2. As a result, the capability of the actors to make the system as a whole work better, has more value than only the technical equipage.

16.1.3. Further discussion noted that service priorities were not really new even in the new functionalities proposed in the GANP, but that the interoperability, harmonization and collaboration mentioned earlier (involving all stakeholders, at all scales) have greater importance/criticality on ability to evolve the ATM than in the past.

16.1.4. It was also agreed that there was a need to properly address the knock-on effects when preparing the business cases.

16.1.5. Further discussion on this issue indicated that changes to common terminology used for service delivery policy, (such as Best equipped best served or most capable best served etc,) should not be misleading or restrictive and that describing best practices would be a suitable tool to address incentives. The meeting was clear that the forthcoming work should concentrate on current best practices rather than focus on possible future priorities such as 'first planned, best served' as an example. There was a further clarification in the description of best practices for providing incentives suggesting that service priority is a subset of those operational incentives.

16.1.6. There was much discussion on the topic of global interoperability and harmonization. In summary, the meeting noted the proposals as they have been expressed in the GANP for the moment but noted the likelihood of possible mandates in the future. The meeting did, however, agree that regional harmonization and regional planning are important to interoperability and that those processes and procedures should be further improved.

16.1.7. There was also significant discussion on the Business Case and CBA issues though there was agreement that the working papers expressed the sentiments of the meeting quite well. There was one important point to be added to the final deliverables on the subject and that was to request that the impact of doing nothing should be visible in the CBA.

16.1.8. The Secretariat proposed a way forward for the work programme of the MDWG-ASBUs. The meeting reviewed the proposals and made a number of changes which are presented in paragraph 4.

17. WORK PROGRAMME

17.1. Tasks for the MDWG-ASBUs

17.1.1. The discussion highlighted the following tasks to be addressed by the MDWG-ASBUs:

a) establish an inventory of best practices in existing operational and financial incentives;

b) determine the parameters and definitions of, for example, service priority policies;

c) establish an inventory of existing financing schemes;

d) evaluate to the extent possible the effectiveness of the afore-mentioned;

e) develop guidance material for business cases and CBA;

f) consider how the policies might be applied in practice at a State level or regional level; and

g) consider how the findings could be reflected in existing ICAO policies, guidance material and GANP as well as in coordination mechanisms.

17.1.2. MDWG-ASBUs' findings will be presented to both the ANC and the AEP-ANSEP/5 which will be tasked to determine if and how the existing guidance should be amended to incorporate them.

17.1.3. MDWG-ASBUs will also make proposals on which additional information should be included in the next update of the GANP and associated guidance materials.

17.2. **Four ad-hoc working groups (WGs)**

17.2.1. There was consensus on the need to establish four different ad-hoc working groups (WGs) in order to work on the aforementioned tasks for the MDWG-ASBUs. Each WG will have a Rapporteur who will be tasked to ensure coordination with the other groups and the Secretariat.

17.2.2. The tasks allocated to each WG are described in the following sections:

a) **WG 1:** Identification of best practices for incentives (including operational and financial incentives) supporting the implementation of ASBUs

1) identification of the different types or level of service priority;

2) identification of operational policies that are currently used;

3) identification of the different type of incentive;

4) evaluation, to the extent possible, of the effectiveness of the afore-mentioned;

5) identification of the stakeholders impacted by the ASBUs implementation and the geographic level in the implementation;

6) consider the aspects of equipage, training, certification and operational approval, etc.; and

7) elaboration of common definitions.

b) **WG 2:** Business cases and Cost-Benefit Analysis for ASBUs implementation

1) develop guidance material for business cases and Cost-Benefit Analysis; and

2) determine Aviation Data related to ASBU's implementation, such as traffic, traffic forecasts, equipment database, etc.

c) **WG 3:** Schemes to finance the ASBUs implementation

1) identification of mechanisms to support operational improvements for financing notably infrastructure and equipment.

d) **WG 4:** ICAO Policies:

1) consider how the findings of MDWG-ASBUs are impacting ICAO policies;
2) ascertain the effectiveness of current ICAO policies; and
3) assess the need of new policies.

17.3. **Time-Frame**

17.3.1. In order to meet the deadlines of for making proposals for the GANP update as well as reporting to the AEP-ANSEP/5,the following time frame has been agreed, based on the proposal of ICAO to approve an initial draft update of the GANP in June 2015. This update of the GANP will then be sent to States and international organisations for comments.

17.3.2. All the working groups will work by means of correspondence and WGs 1,2 and .3 will present intermediate reports in May and July 2014 in order to be able to submit their respective final reports to WG4 in September 2014. This will ensure that the material needed for consideration in the next edition of the GANP will be available in time for the Air navigation Commission update process. WG4 will be in charge of consolidating the reports and present the consolidated report during the second meeting of MDWG-ASBUs (MDWG-ASBUs/2) which is expected to be held from 9 to 10 February 2015.

17.3.3. In parallel the MDWG-ASBUs will present its findings to AEP-ANSEP/5

17.4. **MDWG-ASBUs/2 outcome**

17.4.1. The MDWG-ASBUs is expected to assess the need to:

a) complement the existing ICAO Documents (*ICAO's Policies on Charges for Airports and Air Navigation Services* (Doc 9082), *Manual on Air Navigation Services Economics* (Doc 9161) and the *Airport Economics Manual* (Doc 9562)) and other operational material;
b) develop a new manual on incentives with the findings of the working groups;
c) develop a guidance document for the principles to be used to develop business cases and CBA; and
d) add cross-references in the updated version of the GANP to be ready for the 39th Session of the ICAO Assembly (A39).

17.5. **Composition of the sub working groups (SWGs)**

17.5.1. The States and Observers that have expressed their interest in being part of these working groups are shown in Appendix B.

17.5.2. The Rapporteur for each SWG is:

WG 1: Jeffrey Wharff (United States) and Marinus De Jong (EC)
WG 2: Amanda Downing (United Kingdom) and George Anjaparidze (IATA)
WG 3: Eugene Hoeven (CANSO)
WG 4: David Reble (Canada)

17.5.3. It is noteworthy that the final definition of each group will be established after consultation by the Secretariat with the other members of MDWG-ABSUs who have not been able to attend in order for them to nominate a qualified expert to be part of these working groups.. The list of members for each WG should be finalized by 7 March 2014.

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Working Group No.	Topics and participants (R = Rapporteur)
WG/1	**Identification of best practices for incentives (including operational and financial incentives) supporting the implementation of ASBUs** - Marinus de Jong (European Commission) **(R)** - Jeffrey Wharff (United States) **(R)** - Betty Castaing (Dominican Republic) - Jean-Pierre Coté (Canada) - Indra Gunawan (Indonesia) - Manjunath Krishna Nelli (India) - Ramamurthy Sridhar (India) - Eduardo Miguel Soares (Brazil) - Soon Boon Hai (Singapore) - Peter Ingleton (IBAC) - Benoit Couturier (ICCAIA) - Indra Gunawan (Indonesia) - Bernard Gonsalves (CANSO) - Carole Couchman (IFALPA) - Eugene Hoeven (CANSO) - Franck Hofmann (IAOPA) - Peter Ingleton (IBAC) - Didier Roland Kameni (ASECNA) - Joel Morin (IATA) - Bernard Miaillier/ Michael Standar (to coordinate with EC, Eurocontrol, SESARJU)
WG/2	**Business Cases and Cost-Benefit Analysis for ASBUs implementation** - George Anjaparidze (IATA) **(R)** - Amanda Downing (United Kingdom) **(R)** - Monica Alcabin (ICCAIA) - Antonino Bardaro (ECAC) - Jean-Pierre Coté (Canada) - Helena Faleiro (ECAC) - Eugene Hoeven (CANSO) - Marinus de Jong (European Commission) (to coordinate with SESARJU, Eurocontrol) - Elizabeth Kiguta (ACI) - Jeffrey Wharff (United States) Observer: Antonio M.F. Crespo, Brazilian Commissioner of the Air Navigation Commission

WG/3	**Schemes to finance the ASBUs implementation** - Eugene Hoeven (CANSO) **(R)** - Monica Alcabin (ICCAIA) - Antonino Bardaro (ECAC) - Jean-Pierre Coté (Canada) - Helena Faleiro (ECAC) - Marinus de Jong (European Commission) (to coordinate with SESARJU and Eurocontrol) - Cyriel Kronenburg (IATA) - Jeffrey Wharff (United States)
WG/4	**ICAO Policies** - David Reble (Canada) **(R)** - Peter Ingleton (IBAC) - Marinus de Jong (European Commission) (to coordinate with SESARJU and Eurocontrol) - Elizabeth Kiguta (ACI) - Hui-yang Kim (Republic of Korea) - Cyriel Kronenburg (IATA) - Jun-ok Shin (Republic of Korea) - Jeffrey Wharff (United States)

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