



ASSEMBLY — 39TH SESSION

TECHNICAL COMMISSION

Agenda Item 36: Aviation safety and air navigation implementation support

IMPACT ASSESSMENT AND OBJECTIVE METRICS IN AIR NAVIGATION

(Presented by the Dominican Republic)

EXECUTIVE SUMMARY

Upon reviewing the status of air navigation, through the targets set, we can clearly see the progress of the implementations effected. However, the performance results of said implementations appear to be lacking.

This has led us to propose an impact assessment mechanism which would facilitate the monitoring, tracking, and control of results in accordance with the objectives set with each implementation conducted.

Action: The Assembly is invited to:

- a) take note of the information in this working paper;
- b) approve the Impact Assessment Form; and
- c) agree on any other action considered appropriate.

<i>Strategic Objectives:</i>	This working paper relates to the Safety and Air Navigation Capacity and Efficiency Strategic Objectives.
<i>Financial implications:</i>	It is hoped that the Regular Programme budget for the triennium will cover the activities related to the implementation of the GANP. However, ICAO may have to provide for additional resources to support other initiatives backed by the Assembly.
<i>References:</i>	Global Air Navigation Plan 2013-2028 (Doc 9750) Air Navigation Report, 2016 Edition Port-of-Spain Declaration Third NAM/CAR Air Navigation Implementation Working Group Meeting (ANI/WG/3), Mexico City, 4 to 6 April 2016 State Letter NACC59843 - <i>Status of Implementation of the NAM/CAR Regional Performance-Based Air Navigation Implementation Plan (RPBANIP) Air Navigation Targets</i> , 7 March 2016 State Letter AN 13/54-15/77 – <i>Proposed fifth edition of the Global Air Navigation Plan (GANP, Doc 9750)</i> , 1 December 2015

¹ Spanish version provided by the Dominican Republic

1. INTRODUCTION

1.1 A review of the progress of the implementation of the regional air navigation targets of the Port-of-Spain Declaration and the RPBANIP (Regional Performance-Based Air Navigation Implementation Plan) initially shows that we have fully met, or are well on the way to meeting, the objectives set. However, a closer look leads us to ponder the objectivity of said objectives, since they do not make clear their expected result, or rather, what it is that they aim to measure.

1.2 Further, the establishment of a link between the RPBANIP and the ASBU (Aviation System Block Upgrade) Block 0 modules, as set out in the GANP (Global Air Navigation Plan), gives rise to a new dilemma concerning the region's prioritization and harmonization with regard to the No Country Left Behind (NCLB) initiative. This is because the respective realities of each State in the region are very different, given the singularities of their operational needs and the particular development levels extant.

1.3 This makes it necessary to create tracking mechanisms which are more effective and direct and which enable the harmonized progress of regional implementation.

2. DISCUSSION

2.1 If we consider the flexibility proposed by the ASBU, in which each State implements the modules or module elements which suit its operational needs, "harmonization" becomes a "contradiction." This is because there cannot be harmony where there is no synchrony, and it is synchrony, which is precisely what the NCLB joint development initiative seeks, which makes patently evident the need to establish minimum parameters for implementation and for results in order to achieve this much desired harmonization.

2.2 When we say "minimum parameters for implementation," we are referring to the following: since what is actually to be implemented is optional, at least the elements necessary for ensuring the same level of services in every region need to be present. Said elements would facilitate the harmonization of adjacent States as regards levels of investment, interconnectivity, coordination, and the like.

2.3 When we speak of "minimum parameters for results," we are referring to the following: once the expected outcome of a particular situation is specified, the question of "what with" is no longer relevant and our attention instead turns to the question of "what for." For example, if surveillance is established as one of the minimum parameters in the region, whether said surveillance is based on ADS, PSR, or SSR is not relevant; what is relevant is "a(n) X per cent reduction of dangerous approaches" or "a(n) X per cent reduction of cases of loss of safety," to name just a few of the many possibilities. The establishment of such minimum parameters would give the end users of the air transport system in a given region a guarantee of "seamless" safety, since regardless of the tool used, the expected performance result would be the same.

2.4 As well, establishing the purpose of implementations would make it easier for States to choose the ASBU modules or module elements which best suit their particular needs, thereby ensuring that the region's target is met. Most importantly, however, it would facilitate the measurement of the impact of the implementations planned, since tangible results would enable objective monitoring and open the door to opportunities for the improvement of said results.

2.5 We propose to the Assembly the use of an impact assessment form (based on the one used in the amendment proposals of the ANC). This form would help States to determine the applicability of, and to implement, ASBU modules or module elements in accordance with their respective operational needs and capacities, while also establishing the expected outcome of implementation.

2.6 This would facilitate decisions on implementation by opportunely identifying both the benefits or results sought and the strategic objective concerned. It would allow States with fewer economic resources to pursue the feasible alternatives which are presented in the Global Air Navigation Plan and which enable the fulfilment of the objectives of the Global Aviation Safety Plan. It would also ensure the monitoring and objective measurement of performance for the purposes of control and continuous improvement.

2.7 The tracking and assessment of the results produced by this form could be used by States for their respective improvement plans, and by regional groups for review, monitoring, and annual performance reports.

3. CONCLUSION

3.1 The best way to continue the regional implementation plans is by means of metrics which reflect qualitative regional development, rather than quantitative regional development; and by giving each State latitude within which to grow in accordance with the pace it needs, but in keeping with the minimum implementation guidelines given priority in its region, and in accordance with, above all, the impact which implementation has both on the State in particular and on the region overall.

3.2 Ideally, there should be, instead of implementation targets, outcome targets which make possible a set of indicators with which to guide regions in respect of effective implementation and opportune identification of needs. Rather than entailing the setting of very ambitious targets, this would allow us to go from the specific of the State to the general of the region and the world.

APPENDIX
IMPACT ASSESSMENT FORM
(English only)

PART 1: IMPACT ASSESSMENT

1.1 What is the problem/opportunity that this Implementation is designed to address? *Please include reference to Jobcard / ASBU / RPOs / work programme item, as applicable*

.....

1.2 What is the overall impact of this proposal on the strategic objectives of ICAO, namely: Answer (Positive / Negative / Negligible / None)

Rationale:

Please provide an explanation for your choice and highlight any caveats or limitations in the selection

Capacity	...	...
Safety	...	...
Security	....	...
Environment	...	...
Efficiency	...	...

1.3 What is the overall impact on resources of this proposal for: Answer (Increase / Decrease / Negligible / Unknown)

Rationale:

Please provide an explanation for your choice and highlight any caveats or limitations in the selection

Financial	...	...
Personnel	...	...
Other	...	...

1.4 Is there any other mechanism established to contribute to this problem:

Rationale:

Please provide an explanation for your choice and highlight any caveats or limitations in the selection

Yes	...	...
No	...	...
Not Sure	...	...

1.5 In your opinion, do the benefits of this proposal justify the cost of implementing the proposal from the perspective of: Answer (Yes / No / Not sure / Not applicable)

Rationale:

Please provide an explanation for your choice and highlight any caveats or limitations in the selection

States	...	...
Operators	...	...
Users		

PART 2: IMPLEMENTATION PLAN

To assist ICAO and States ensure this proposal will be effectively implemented please answer the following questions.

Note: ICAO recognizes that States experts may feel limited in their ability to answer some or all of these questions, however, encourages experts to provide their views.

2.1 Is there any supporting documentation required for this implementation? *If Not, please include reference to any documents that require initial release/amendment e.g. ICAO Document or Circular name and number, industry specification, national reglamentation, etc*

- ...
- ...
- ...

2.2 What other guidance, training and support activities do you recommend ICAO undertake to ensure the effective implementation of this proposed implementation? Please include reference to any existing support/promotional programmes and whether it is required globally or regionally e.g. regional seminars, ikits, etc

- ...
- ...
- ...

2.3 What are the essential steps to be followed by a State in order to implement this module/element? *Please include the major steps e.g. amendment of national legislation, change of oversight procedures, training of oversight personnel, required competencies, etc.*

- ...
- ...
- ...

2.4 What is the timeframe needed to implement this module/element by: Answer
(0-1 years / 1-2 years / 2-5 years / 5-10 years / not applicable)

Rationale:
For the State, the timeframe is the length of time needed implement in the national regulatory framework
For operators, the timeframe is the length of time needed f industry to start implementing in their operations

States	...	...
Operators	...	...

PART 3: AUDIT PLAN

Note: This section will be completed by ICAO prior to the presentation of any proposed Regional or Global Implementation referred to SARPs or PANS. The Panel Secretary will coordinate with the relevant experts in ICAO.

3.1 Does this implementation require an amendment of the USOAP CMA protocol questions to assess effective implementation by States? *Please include reference to existing PQs that may need amendment or description of any new PQs that may be required. State 'Not applicable' if no impact*

- ...
- ...
- ...

Attachment: Guidance on Completing this Form

Part 1: Impact Assessment

Section 1.1: This section is meant to capture, in general terms, a need or an opportunity for change. The information needed will typically be contained and extractable from a related Job card. Its size should ideally be limited to a few statements and its scope should remain focused on the issue at hand.

Section 1.2: This section seeks to establish the impact of the proposed change, in terms of capacity, safety, security, efficiency, and the environment. Drop-down boxes are provided to assist selection of a standardized answer. Rationale statements should substantiate in general terms the assessment of these specific items, outlining any significant caveats to which the panel may wish to draw attention. It may also outline differing views of State and Industry if necessary. Items deemed ‘negligible/none’ do not require a rationale statement unless you deem appropriate to provide one.

Section 1.3: This section seeks to obtain a very high-level understanding of the overall impact of the proposal on States and Industry, in terms of financial and other resource costs. For the State, this may include the cost to develop, implement, maintain, and consider oversight issues associated with the proposed change. For the Industry, it may refer to the cost of implementing the change (where compliance is required by the State) which may translate into costs for equipage, human resources, training, documentation, aircraft modifications or upgrades, operations and airworthiness for example. Drop-down boxes are provided to assist selection of a standardized answer.

It is recognized that while the implementation of a proposal may involve an initial cost to one system, the overall impact of the proposal when implemented may be to reduce costs in the overall system over a longer period (for example through introduction of new ATM operational procedures) and this should be reflected in the answer and rationale provided.

Whereas some changes have limited implications, other changes may be far-reaching in terms of resource commitment and long-term implications. The Rationale field should not attempt to quantify the impact on resources, but identify the overall scope (narrow change with no interdependencies; broad changes with numerous interdependencies) and timeline (a one-time change, or an evolving change with short-, medium- and/or long-term implications).

Section 1.4: This section seeks to provide waiver for States to implement any other tool, technology or procedure to get the same results as for the Region, but adapted to its own reality or particularity.

Section 1.5: This section seeks to obtain an overall summary of the merits of the proposal that should go forward for Stakeholders consideration. It is structured to allow any differing opinions to be reflected, from the State or industry perspective. The Rationale section should reflect any significant differences of opinion on implementation within the expert group. It must be noted that a negative response selection will not imply that the proposal will be rejected. Likewise, positive responses do not imply it will be accepted. Drop-down boxes are provided to assist selection of a standardized answer.

Part 2: Implementation Plan

The ICAO Council has requested that all proposals for adoption should contain detailed information on the steps necessary for adoption of a proposal. As stated in the form, ICAO recognizes that States experts may feel limited in their ability to answer some or all of these questions, however, encourages the experts to provide their views. The answers in this section will inform the applicability date decided upon by the States.

Section 2.1: This section seeks to identify all documentation (Annex, PANS, Doc or Circular) that needs to be created, amended to complete or support the proposed implementation. A simple bullet-point list of the document references is requested.

Section 2.2: This section seeks to identify any promotional activities ICAO should undertake to ensure the proposed implementation is clearly understood and effectively adopted. This is not of particular interest in routine Annex or PANS amendments but is a particular issue for new and/or far-reaching proposals. It is typically addressed by providing regional seminars, producing explanatory ‘ikits’, etc. A simple bullet-point list of suggested activities is requested.

Section 2.3: This section seeks to capture the essential steps a State needs to undertake to effectively implement the new requirement, assisting a State understand the overall impact of the proposal and what it will need to do to fully implement. As an example, the State may need to amend its national regulation, the CAA may need to amend its oversight procedures and applicable operators in the State may need to provide additional training to all flight personnel. A simple bullet-point list of the essential steps is requested.

Section 2.4: This section seeks to obtain a very high-level understanding of the time needed by both States and Industry to implement the proposal. As an example, it is the time needed by a typical State to amend its national regulation and implement perhaps new oversight procedures. The answer should not reflect when the ICAO believes the final State will implement the proposal (worst-case scenario) but instead the time needed by a typical State. For Industry, the estimate should reflect the time needed to implement a new national regulatory requirement into its operation and again should not reflect the worst-case scenario but instead the average time needed. It should not include any allowances for ‘sunset clauses’ or delayed applicability dates sometimes needed for implementation within operational cycles. Drop-down boxes are provided to assist selection of a standardized answer.

Part 3: Audit Plan

Section 3.1: This section seeks to capture whether an amendment to the USOAP CMA process and its protocol questions is required. The proposal may require a new protocol question to capture if the State is effectively implementing or may simply require an amendment to an existing protocol question. A simple bullet-point list outlining the protocol question(s) is requested.

— END —