



**Twenty First Meeting of the Africa-Indian Ocean Planning and Implementation Regional  
Group (APIRG/21)  
(Nairobi, Kenya, 9 – 11 October 2017)**

**Agenda Item 9: Any other Business**  
**Global and Inter Regional Activities**

**Implementation Strategy for Aeronautical Charting**

*(Presented by the Secretariat)*

<b>SUMMARY</b>
This information paper provides a high-level description of the ICAO implementation strategy to increase quality in aeronautical charting products and their compliance with the ICAO standards.
<b>REFERENCE(S):</b> APIRG Procedural Handbook
<b>Related ICAO Strategic Objective(s):</b> This working paper relates to ICAO Strategic Objectives <b>A, B and D</b>

## **1. INTRODUCTION**

1.1 Numerous examples of aeronautical charts that do not comply with the ICAO provisions have been identified and this is causing concerns among the users. Lack of standardization has the potential to result in pilot's confusion and misreading of requirements; pilots receiving non-standard aeronautical charts have to deal with a variety of options and make their own interpretation in order to acquire awareness of flight-critical conditions. This is hazardous and makes the information very difficult to discover.

1.2 Additionally quality issues have been noticed on aeronautical charts published by the States; relevant operational information is occasionally missing, data may contain errors or the same information is not consistently represented across different information products. This has the potential to result in a significant impact on flight safety.

1.3 PBN is the global aviation community highest priority and erroneous information concerning PBN procedures can significantly affect their implementation. In fact, inaccurate information may result in pilots flying approaches for which they were not approved or PBN procedures that are not entirely flown.

1.4 In light of this, ICAO has decided to take initiative and develop an "implementation strategy" to tackle issues and inconsistencies currently existing with aeronautical charts. The main objectives of the proposed approach are:

- a) to strive for standardization in aeronautical charting products. Adherence to standards is an essential step to foster the development of a safe aviation system; and

- b) to increase quality in aeronautical charting products. Providing users with information they can trust is crucial to support their decision-making process and ensure a better deliver of service.

1.5 This information paper provides the high-level description of the proposed implementation strategy.

## 2. DISCUSSION

2.1 The main goal of the proposed ICAO implementation strategy is to create processes that will allow the easy identification of charting issues, the capability to understand where those issues originate, take the appropriate actions to improve quality in the charting products and make sure that the user`s satisfaction feeds back to ICAO as a measure of the overall performance of the strategy.

2.2 Creating an implementation strategy is a challenging activity and requires the commitment of several actors to ensure its effectiveness and capability to eliminate the identified barriers. Clear roles need to be identified and a common understanding of the respective responsibilities is essential. If clear roles and responsibilities are defined, efforts will not be duplicated and every stakeholder will positively contribute to the common objectives.

2.3 The suitability of the ICAO proposed approach will be evaluated and areas of improvements identified and rectified. Quality feedback mechanisms need to be in place to allow the users to propose improvements to the strategy and help identify possibilities for enhancing the methodologies.

2.4 It is also essential to measure implementation of charting requirements while the strategy is in place to monitor any improvements. If after a reasonable amount of time the aeronautical charting products still suffer of lack of standardization, a review of processes and procedures will be conducted to improve the strategy and comply with the objectives.

2.5 The ICAO proposes a two-phases approach, as follows:

### PHASE 1 (“short-term” strategy)

2.6 During phase 1, users of aeronautical charting products are requested to provide feedback to the ICAO Headquarters when significant inconsistencies are detected on charts and cannot be fixed by standards processes. “Users” is a generic term and includes aeronautical charting providers, airlines, pilots, flight dispatchers, and many others.

2.7 The ICAO Headquarters will address the specific issue with the ICAO regional office of competence who will reach out to States to acquire a better understanding. Support will be provided to fix the inconsistency and recommendations will be made to implement processes and procedures which prevent errors and ensure that aeronautical information products repeatedly comply with the ICAO standards and meet the needs of the users.

2.8 In order for phase 1 to be effective, States need to cooperate with ICAO and its regional offices and make all possible efforts to adhere with the ICAO standards.  
PHASE 2 (“long-term” strategy).

2.9 On a long-term perspective, users of aeronautical charting products are requested to provide feedback to ICAO on the most common and persistent issues in order to increase ICAO awareness on the main areas of concerns. ICAO will then categorize, analyze and prioritize those issues and organize adequate training, workshops and seminars.

2.10 Workshops and trainings will aim at increasing competence among the technical experts dedicated to the production of aeronautical charts and increase the percentage of charting information products that comply with the ICAO provisions.

### 3. SUPPORTING INFRASTRUCTURE

3.1 To support the communication among all the stakeholders involved in the process a supporting infrastructure will be created.

3.2 A centralized resource will be established and published on the ICAO public website (www.icao.int/safety/charting). Initially, it will include the following components:

- a) a standard reporting template; issues concerning charting products will be reported in a way that is standardized, that is clear who is the requester, what is the category of the issue and if it is a safety-related issue;
- b) a centralized database; all the pending requests coming from different States, organizations or charting providers are stored in one common database. The database will track the status of those issues and the deadline by which they are intended to be resolved;
- c) a geographical map, showing the status of implementation of aeronautical charting requirements in order to monitor the status of implementation and to identify main areas of concerns; and
- d) Feedback mechanisms to account for user`s satisfaction of the service provided by ICAO.

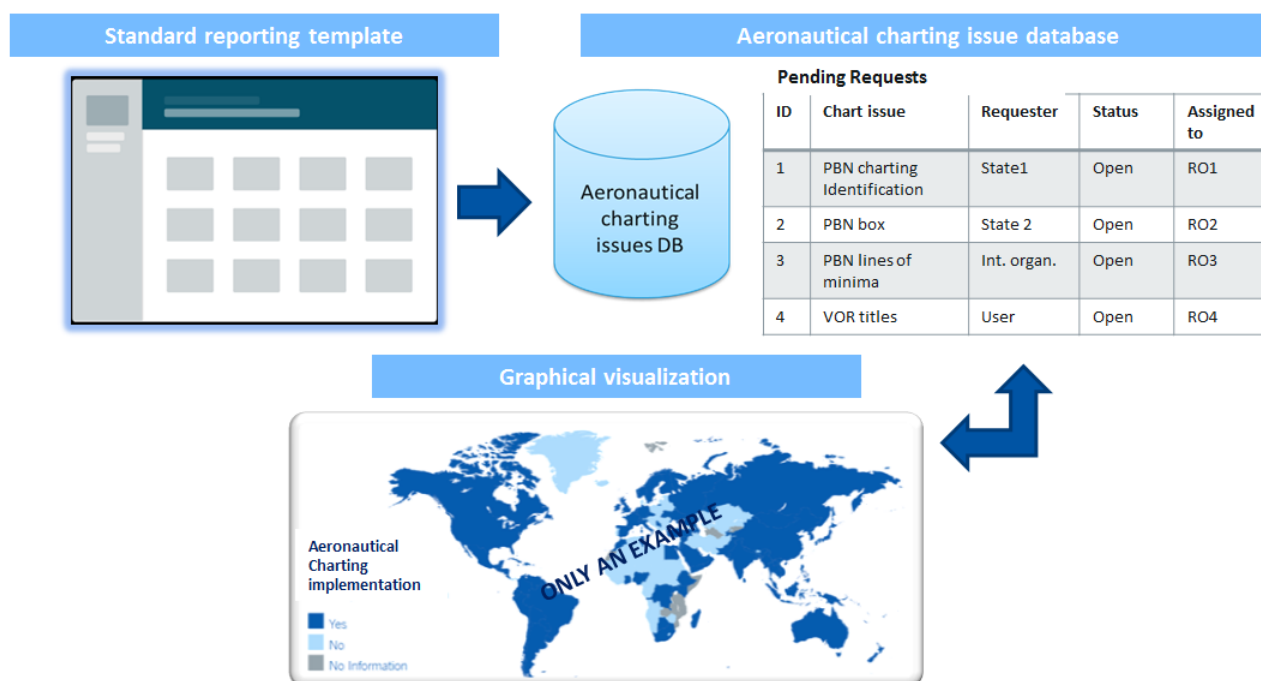


Figure 1 Supporting infrastructure

### 4. HIGH PRIORITIES AND DEADLINES

4.1 As a starting point, the implementation strategy will focus on implementation of PBN charting issues, such as issues with chart identification, chart notes (or “PBN Requirements Box”) and

minima tables. The strategy will be broadened to other aeronautical charting issues and, eventually other information products (e.g. AIP or digital data sets).

4.2 Phase 1 of the implementation strategy will be initiated on the second half of this year (October/November 2017). Its duration significantly depends on the results that are obtained. Phase 2 will be initiated only when the first phase will be considered robust enough and creates the baseline for further steps.

4.3 Before the initiation of phase 1, ICAO will make all possible efforts to create awareness on the proposed strategy and communicate with all the stakeholders involved in order to identify clear roles and responsibilities. ICAO Regional Offices, aeronautical charting providers, international organizations, airlines will all play a major role in making the strategy effective.

4.4 An efficient supporting infrastructure will also determine the quality of the feedback. A first version of this infrastructure will be available in October 2017.

## **5. ACTION BY THE MEETING**

5.1 The meeting is invited to note the information presented and refer to APANPIRG subgroup.

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