International Civil Aviation Organization
South American Regional Office
Meeting on GREPECAS MET Programme Projects

(Lima, Peru, from 18 to 22 September 2017)

SAM/MP2-IP/08
07/08/17

Agenda Item 7: Other business

Initial findings of a 2016/17 WMO CAeM Global Survey on Aeronautical Meteorological Service Provision

(Presented by WMO)

SUMMARY

This information paper addresses a WMO Commission for Aeronautical Meteorology (CAeM) global survey on aeronautical meteorological service provision that was conducted from November 2016 to February 2017.

The paper highlights the scope of and level of response to the survey as well as the initial findings to emerge from the survey. In addition this paper provides an outline of the envisaged next steps and where further information will be made available.

Action by the meeting is at paragraph 3.

1. Introduction

1.1 From November 2016 to February 2017 the World Meteorological Organization (WMO) Commission for Aeronautical Meteorology (CAeM), led by its Expert Team on Governance (ET-GOV) with the assistance of its Expert Team on Communication, Coordination and Partnership (ET-CCP), conducted a global survey on aeronautical meteorological service provision with WMO Members.

1.2 The survey, in the form of an online survey, sought to establish a comprehensive, consolidated global view on the existing institutional arrangements for the provision of meteorological services to international air navigation, particularly at a national level taking into account the supporting ICAO and WMO regulatory frameworks.

1.3 This was the first such global survey conducted by the CAeM in about a decade and by far the most comprehensive.

1.4 This information paper outlines the scope of the survey and the level of the response (both at the global level and regional level) as well as the initial findings to emerge from the survey. In addition, this information paper outlines some of the envisaged next steps in response to the survey and where further, more detailed information on the outcomes will be made available.

2. Discussion

2.1 Scope of the survey

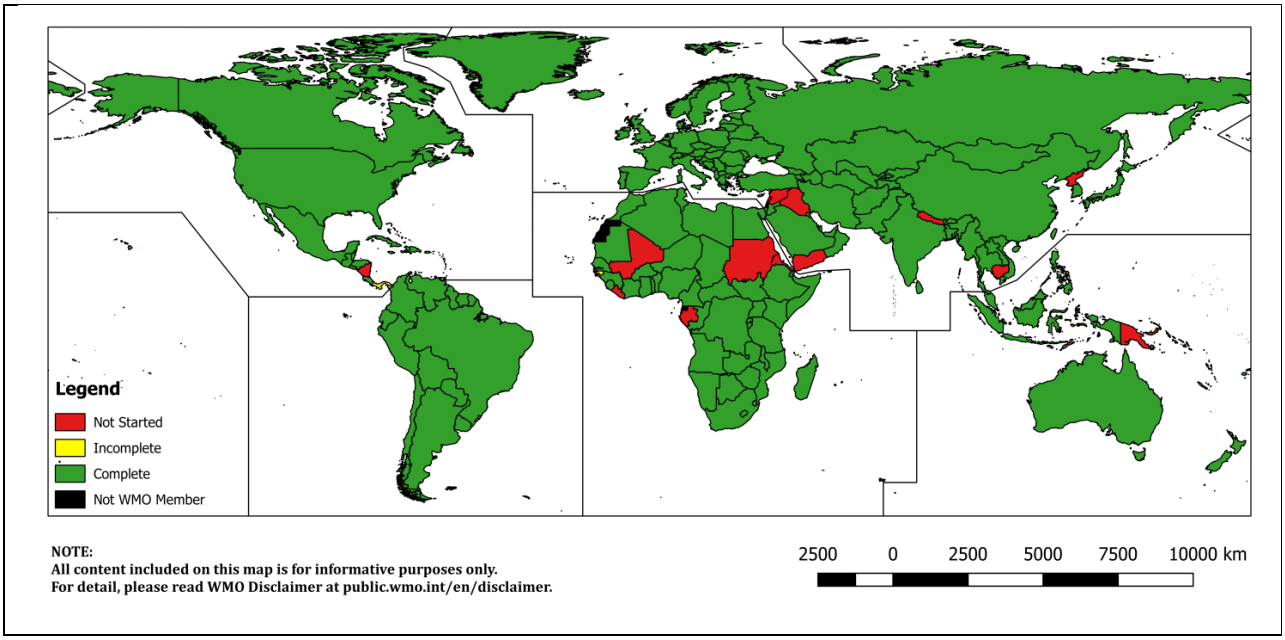
2.1.1 The survey comprised eight sections (approximately 50 questions in total) and addressed topics that included national legislation, regulation and institutional arrangements, organizational aspects,

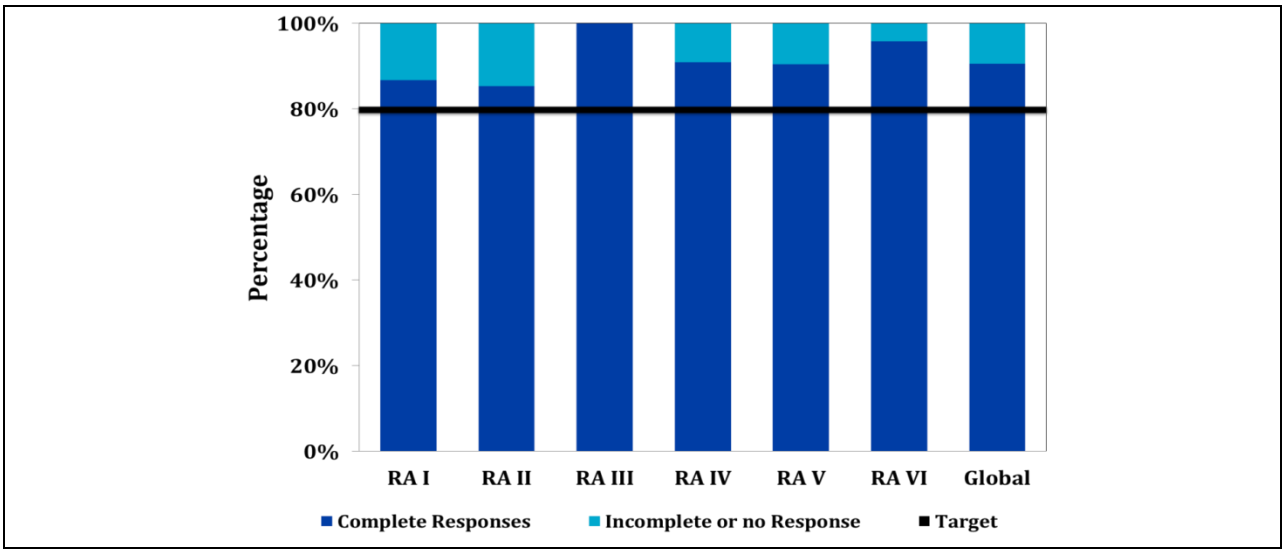
compliance monitoring with a focus on quality management systems (QMS), competency and qualification of aeronautical meteorological personnel, cost recovery for service provision, technical capabilities, challenges and priorities. A particular focus of the survey was on arrangements for meteorological watch offices (MWO), aerodrome meteorological offices (AMO) and aeronautical meteorological stations (AMS).

2.1.2 While the survey was sent to the Permanent Representatives (or Directors of Meteorological or Hydrometeorological Services) of Members of WMO, it was acknowledged that in view of the broad scope and occasional complexity involved in aeronautical meteorological service provision, it was expected that the survey would be completed by personnel with a sufficiently broad awareness and understanding of the existing national arrangements, as well as an appreciation of future needs and expectations in this regard. To this end, through the efforts of ET-GOV assisted by ET-CCP, the survey reached many of the known focal points of contact within the aeronautical meteorology community, thus promoting visibility and encouraging a peak response.

*2.2 **Level of response to the survey***

2.2.1 A response rate of more than 90 per cent was achieved, exceeding an original target of 80 per cent. Such a high response rate was attributable, in part, to the concerted outreach that ET-GOV and ET-CCP had undertaken within the community (nationally and regionally). The importance of up-to-date subject matter expertise and focal points of contact cannot be underestimated in this context. In addition, the online nature of the survey had lent itself favourably to garnering responses, since it was somewhat easier (faster) to complete compared, say, with a paper-based survey.





2.2.2 In WMO Regional Association III (South America) a response rate of 100 per cent was achieved, the highest percentage across all regional associations and exceeding the average response rate of 92 per cent.

2.2.3 WMO and the CAeM specifically expresses sincere appreciation to all those who took the time and effort to complete the survey.

2.2.4 The level of response rate, when viewed globally and regionally, portrays the importance that an overwhelming majority of WMO Members place in their obligations to provide aeronautical meteorological services and a willingness to share information to derive benefits for the community as a whole. In addition, the level of response rate means that meaningful and ultimately reliable findings and recommendations can eventually be drawn from the results of the survey.

*2.3 **Initial findings***

2.3.1 With more than 170 responses and with almost 50 answers per response, a significant analytical exercise commenced upon the closing of the survey consultation period. The following is intended to simply provide an overview of the initial findings as they relate to the *global* landscape:

a) There is a large variety of arrangements and conditions both in and between Member States and regions for the provision of aeronautical meteorological services;

b) A clear trend is visible towards functional separation between regulator, service provider and oversight;

c) The maturity of aeronautical meteorological service providers (AMSP) varies significantly across WMO Members;

d) In a majority of WMO Member States and Territories, the MWO, AMO and AMS functions are still provided by national meteorological and hydrological services (NMHS), however:

i. Air traffic services (ATS) organizations are the second largest AMSP (approximately 30% for MWO function), while other AMSPs include military, airports and commercial meteorological service providers; and

ii. The largest variety (broadest range) of entities providing the MWO, AMO and AMS functions is noticed in AMS service provision. For example, in a fifth of WMO Member States and Territories, the AMS function is fulfilled through a combination of all of the aforementioned entities;

e) The global trend for consolidation in air navigation service provision is observed also in the centralization of MWO and AMO functions;

f) The number of AMSPs that comply with quality management system, competency and qualifications requirements has improved, however, there remains a regulatory risk for a significant number of AMSPs that are yet to fully implement these ICAO and WMO requirements;

g) Cost allocation and cost recovery is an issue for a number of AMSPs;

h) New challenges amongst WMO Members are to meet emerging technological standards and to fulfil ATM user needs for improved customer services;

i) Several WMO Members expressed concern related to competition from other providers (including private sector, commercial providers or regionalization) and pressure to reduce costs; and

j) Several WMO Members requested WMO (and ICAO) for support to handle these challenges.

2.3.2 More detailed information on the global *and* regional landscape will be made available by WMO in due course.

*2.4 **Next steps and further information***

2.4.1 The outcomes of the survey, including detailed findings and recommendations at global and regional levels, are being finalized by ET-GOV and will be made available in due course via the WMO website at URL: https://www.wmo.int/aemp/

2.4.2 The outcomes of the survey will be used to inform WMO constituent bodies, including technical commissions and regional associations, and others concerned, including ICAO, of the prevailing (2016/17) global and regional landscape of aeronautical meteorological service provision with a view to helping all concerned better define the priorities and activities necessary to serve the needs of providers and consumers going forwards, including the overcoming of deficiencies in service provision.

2.4.3 The Sixteenth Session of the CAeM (CAeM-16) is scheduled to take place in July 2018. The outcomes of the survey, together with other inputs such as recommendations arising from a WMO Aeronautical Meteorology Scientific Conference[1] and the latest edition of the ICAO Global Air Navigation Plan (GANP), will be utilized to facilitate strategic and operational planning by the Commission.

1 "AeroMetSci-2017" to be held 6 to 10 November 2017 at Météo-France in Toulouse, France.

3. **Action by the meeting**

3.1 The meeting is invited to note the contents of this information paper.

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