

REVIEW OF THE WORK PROGRAMME IMPLEMENTATION

Space weather-related activities

(Submitted by the WMO Secretariat)

Summary and Purpose of Document

This document provides an outline of recent and upcoming space-weather related activities of the CBS/CAeM Inter-Programme Team on Space Weather Information, Systems and Services (IPT-SWeISS).

ACTION PROPOSED

The Management Group (MG) is invited to note the information contained in this paper and consider the points raised in the context of future work.

1. EXECUTIVE SUMMARY

1.1 CBS/CAeM Inter-Programme Team on Space Weather Information, Systems and Services (IPT-SWeISS)

1.1.1. The MG recalled that Decision 33 (EC-68, 2016) had approved terms of reference of a CBS/CAeM Inter-Programme Team on Space Weather Information, Systems and Services (IPT-SWeISS) with the objective of coordinating space weather activities within WMO Programmes, to maintain linkage with constituent bodies and their relevant subsidiary groups, to main linkage with partner organizations, and to provide guidance to WMO Members. The MG was informed that, preceding EC-68, the CBS Management Group at its meeting in February 2016 had assigned the responsibility of the IPT-SWeISS to the Open Programme Area Group on Data-Processing and Forecasting Systems (OPAG-DPFS).

1.1.2. The MG was informed that IPT-SWeISS had convened its first face-to-face meeting in June 2017 and that the IPT had established the following four task teams (each comprising members of the IPT):

- TT-SCI: Task Team on Science;
- TT-SYS: Task Team on Systems;
- TT-APP: Task Team in Applications; and
- TT-AVI: Task Team on Aviation (ad hoc).

1.1.3. The MG was informed that, in view of the joint-commission nature of IPT-SWeISS, the team was co-chairs by one CBS representative and one CAeM representative – respectively Robert (Bob) Rutledge of the United States of America and Xiaoxin Zhang of China.

1.2 IPT-SWeISS ad hoc Task Team on Aviation (TT-AVI)

1.2.1. The MG was pleased to note that an ad hoc Task Team on Aviation (TT-AVI) had been established by IPT-SWeISS and that it was tasked, inter alia, to facilitate the establishment and maintenance, by ICAO in coordination with WMO, of an operational global space weather information service for international air navigation. The MG further noted that the composition of TT-AVI had been finalized in July (six core members plus ICAO) prior to the commencement of its activities in August 2017. The MG was informed that Daniele Biron of Italy was serving as the TT-AVI team leader.

1.2.2. The MG was apprised that TT-AVI had led the development of suitable audit procedures and reporting templates as well as a working methodology and schedule for the conducting of site assessments and audits of prospective space weather information providers (see next). The MG was pleased to note that TT-AVI had undertaken this work in consultation with the CBS OPAG on Information Systems and Services (OPAG-ISS) Expert Team on Centre Audit/Certification (ET-CAC) and that advice had also been sought from several experts of the (former) CAeM Task Team on Quality Management Systems (TT-QMS).

1.3 Site assessments and audits of prospective space weather information providers

1.3.1. The MG was apprised that, stemming from the ICAO METP/2 meeting in October 2016 and subsequently endorsed by the ICAO Air Navigation Commission, WMO had been requested to undertake the site assessment and audit of prospective space weather information providers in the October 2017 to February 2018 timeframe with a view to assisting ICAO in its designation of provider States not later than July 2018.

1.3.2. The MG was informed that on 23 October 2017, following an ICAO State consultation phase from June to September 2017, WMO was officially notified by ICAO that a total of twenty-two (22) States had expressed an interest in becoming a prospective space weather information provider; however, of these, only ten (10) actual site assessments and audits were to be expected – comprising nine States plus one European consortium of nine States (known as PECASUS¹). ICAO notified that the remaining four States should not be audited at this time.

1.3.3. The MG appreciated that since receiving this official notification from ICAO, TT-AVI in coordination with ET-CAC had been actively pursuing all of the arrangements associated with conducting the site assessments and audits and that, at time of writing, site assessments and audits were scheduled to take place as follows:

State/Consortium	Date
Australia	21-22 February 2018
Brazil	<i>Unconfirmed</i>
Canada	27-28 February 2018
China	29-30 January 2018
France	15-16 February 2018
Japan	1-2 February 2018
Russian Federation	19-20 February 2018
South Africa	24-25 January 2018
United States	<i>Unconfirmed</i>
PECASUS	12-14 and 16 February 2018

1.3.4. The MG noted that by the end of February 2018 WMO expected to have completed all of the site assessments and audits and, moreover, that by the end of March 2018 a report on the audit findings was expected to have been submitted by WMO to ICAO. The MG was informed that, upon receipt of the WMO report, ICAO was then expected to take the information into consideration during its (ICAO's) designation of space weather information providers by July 2018 in advance of the anticipated applicability of the ICAO Annex 3 provisions for space weather in November 2018.

1.4 Future activities

1.4.1. The MG was apprised that the site assessment and audit activities outlined above form just a subset of all the activities currently being pursued by IPT-SWeISS and its four task teams. For example, in the context of TT-AVI, other activities to be undertaken going forwards include providing assistance to ICAO in the development of space weather-related guidance material and other capacity development/outreach necessary to support implementation.

1.4.2. The MG was informed that IPT-SWeISS was addressing a number of other issues that included radio frequency coordination for space weather observations, space weather in the WIGOS Vision 2040 and the updating of a baseline Statement of Guidance for space weather observations.

1.4.3. The MG noted that the second face-to-face meeting of IPT-SWeISS was scheduled for 21 to 23 May 2018 at the National Institute of Information and Communications Technology (NICT) in Tokyo, Japan where progress on these and other relevant topics would be addressed.

¹ Pan-European Consortium for Aviation Space Weather User Services (PECASUS) comprising Austria, Belgium, Cyprus, Germany, Finland (as lead), Italy, the Netherlands, Poland and the United Kingdom.