



International Issues and Future Systems

Peng Zhang (co-chair), Stephen English (co-chair)

Action item review from ITSC-21

ITSC-21 Members: Mikael Rattenborg, Richard Kelley, Dieter Klaes, Pascal Brunel, Hank Revercomb, Allen Huang, Mitch Goldberg, Stephan Havemann, Bertrand Theodore, Ben Ruston, Alexander Polyakov, Christoforos Tsamalis, Claude Camy-Peyret, Alexander Uspensky

Outstanding items from ITSC-19 and 20

- **Action IIFS19-1: Steve English to request ITWG (involving NWP Group) to provide input to CGMS WG III – via Jérôme Lafeuille – for updating the CGMS Contingency Plan. **CLOSE**. WMO (Werner Balogh and Lars-Peter Riishojgaard) confirm this is now closed, comments received have been noted.**
- **Recommendation IIFS19-3: WMO to pursue SATURN, and all agencies to actively contribute information to this portal (and two associated actions). **CLOSE**. SATURN is now well established. Suggest at each ITSC soundings be made about use of SATURN and feedback to WMO. This Recommendation does not need on-going reporting.**
- **Recommendation IIFS20-12: IIFS and other ITWG members to provide information on current usage of protected bands to Rich Kelley. (Action: Stephen English to provide copy of recent ECMWF submission to Ofcom, and to request Met Office to provide copy of their submission as well as encourage other NMSs to provide similar information where it exists). **CLOSE**. The successful ECMWF workshop (see below and b.01 presentation) provides a mechanism. Recommendation does not need on-going reporting.**
- **Recommendation IIFS20-13: To make MW SRFs available to facilitate RFI investigations when needed. (Action: Stephen English to ask co-chairs to combine with Recs from other WGs and communicate to CGMS). **CLOSE**. Some MW SRFs have been made available. Suggest this Recommendation does not need on-going reporting, but situation should be kept under review.**
- **Recommendation IIFS20-14: Update Steve English's study from 2005 on the value of individual MW protected bands. (Action: Sid Boukabara to ask Thomas Auligné to consider making this part of the FSOI intercomparison study and presenting to the WMO impacts workshop in Shanghai in 2016). **CLOSE**. See response to Action IIFS21-10. Recommendation does not need to continue to be reported on.**

HLPP*: resulting actions and recommendations

IIFS21-A1 Action: Mikael Rattenborg to note IIFS comments in next draft of the HLPP. **CLOSE** (*Mikael reflected the discussions at the IIFS at ITSC-21 in the HLPP paper that went to CGMS-46 in Bangalore. Mitch, as ITWG rapporteur to CGMS, of course contributed to this*).

IIFS21-A2 Action: Christoforos Tsamalis to provide input to Mikael Rattenborg on item 3.4.1 (new common vocabulary and methodology for the errors associated with validation data). **OPEN** (*Christoforos awaiting input from Mikael, following CGMS*).

IIFS21-A3 Action: Claude Camy-Peyret to provide more information to IIFS members on the FORUM proposal. **CLOSE.** *Suggest to close, plenty of information about FORUM is available. FORUM now selected!*

*HLPP = **High Level Priority Plan**. A planning tool for the Coordination Group for Meteorological Satellites, reviewed annually and covering:

- Operational Continuity and Contingency Planning
- Coordination of Satellite Systems and Operations
- Coordination of Data Access and End User Support
- Enhancement of the quality of satellite derived data and products
- Outreach and training activities
- Cross-cutting issues and new challenges

High temporal resolution observations

IIFS21-A4 Action: IIFS members to provide science questions and undertake studies, and encourage others to do so, to WMO (Lars Peter Riishoejgaard at riishojgaard@wmo.int) to support this as a significant theme of the next OSE workshop. **CLOSE.** *(Some science questions from the Working Groups were received by LPR via CGMS.)*

IIFS21-A5 Action: S. English / P. Zhang to bring this* to attention of major NWP centres and TROPICS mission. **CLOSE.** *(S. English presented TROPICS to WMO/IPETSUP, Bill Blackwell visited ECMWF and many NWP centres, detailed information was made available.)*

* This =*“The group noted the upcoming TROPICS mission with a low inclination MW constellation. Such a mission is of potential interest to meet the temporal repeat requirement, but it needs to be critically evaluated by a number of centres”*

Data use issues and latency

Action IIFS-6 on Mikael Rattenborg: To discuss with GODEX-NWP members how this* initiative could be implemented (next meeting Autumn 2018). **CLOSE. *Discussed and reported at GODEX-NWP. Adopted by GODEX-NWP.***

* This = “*sharing of evaluation of higher risk research missions*”

IIFS21-A7 Action on IFS co-chairs: In partnership with NWP WG the IFS WG co-chairs to devise a set of criteria for this CGMS procedure to follow. **CLOSE. *See DA/NWP-12.***

IIFS21-A8 Action Mikael Rattenborg and the IFS co-chairs to draft a letter for ITWG co-chairs to send to Roscosmos and Roshydromet explaining the importance of access through DB-Net and processing of real time MTVZA-GY and MSU-MR data (Alexander Uspensky to advise full postal address of whom to send to). **CLOSE. *(This was done by Mikael and the letter sent.)***

Uncertainty characterisation

IIFS21-A9 Action: Peng Zhang to check status of reference sites in China and their availability.

CLOSE. *(Dunhuang Gobi desert site and Qinghai lake site are organized by CMA. Dunhuang Gobi desert site for solar reflection bands and Qinghai lake site for thermal emission bands. Dunhuang Gobi desert site is prepared to be the site of RadCalnet through CEOS WGCV.)*

RFI issues

IIFS21-A10 Action: Steve English to ask ECMWF if it is willing to host a short workshop (1-2 days) to present updated information with respect to Recommendations IIFS20-14 and IIFS20-15. CLOSE. *(The workshop was held 13-14 September 2018, with a workshop report available. Very successful. See b.01 presentation).*

Commercial satellite observation providers

IIFS21-A11 Action: Steve English and Peng Zhang to bring these suggested changes* to WMO teams considering these questions (CGMS, IPETSUP, ICT-IOS...). CLOSE. *(Stephen English brought this to attention of CGMS and WMO/IPETSUP and through WMO/IPETSUP minutes other WMO teams).*

* *(principles for Critical Satellite Data exchange)*

Review of ITSC-21 Recommendations

IIFS21-R1 Recommendation to IRC: Development of a new unified model for describing spectroscopic and water vapour continuum absorption. [See RTM WG report. Also discussed at Tianjin RTM workshop. Still valid.](#)

IIFS21-R2 Recommendation to ITWG members: ITWG members to familiarise with the HLPP. [CLOSE, but review regularly.](#)

IIFS21-R3 Recommendation to CGMS: To show orbital coverage and other details when orbital configuration and formation flying is under discussion for new research missions, that may benefit from synergy flying with existing operational missions. [Reported. Still valid.](#)

IIFS21-R4 Recommendation to multiple agencies: Evaluation of TROPICS mission to be undertaken by appropriate agencies in partnership with TROPICS mission (e.g. NWP centres). [Still valid, awaiting launch.](#)

IIFS21-R5 Recommendation to GODEX-NWP: For GODEX-NWP to organise and oversee agreed sharing of the evaluation of instruments not considered to be “core” by NWP centres. [CLOSE, activity is with GODEX-NWP.](#)

IIFS21-R6 Recommendation: Note the growing evidence of likely benefits from hyperspectral geostationary soundings, and where possible to work towards the provision of such instruments in plans for future geo systems. [CLOSE, CGMS baseline recognises this.](#)

IIFS20-R7 Recommendation to CGMS: Re-emphasize best practise is to consider latency requirements early in the planning stage of new missions, including research and pre-operational. [See DA/NWP WG report.](#)

IIFS21-R8 Recommendation to CGMS: Recognizing the growing need for assessment and on-orbit optimization of the accuracy of operational hyperspectral IR sounders, the traditional approaches for pre-flight SI traceability and post-flight validation should be enhanced by flying a CLARREO-like on-orbit reference standard capability (featuring on-orbit SI verification) with orbits designed to provide inter-calibration capability for refining the calibration of the international fleet of operational sounders. [Reported, Still valid.](#)

IIFS21-R9 Recommendation to AOPC GCOS: Maintain and where possible expand GRUAN and ARM sites. [CLOSE: Brought to attention of Kenneth Holmlund, current chair of GCOS AOPC. \(Peng Zhang also a member of AOPC\).](#)

IIFS21-R10 Recommendation to CGMS: Space agencies to develop, where possible, improved capability to detect RFI in level-0 data. [Still valid. ESA ITT GRDS system, consortium led by Zenithalblue.](#)

IIFS21-R11 Recommendation to CGMS: Space agencies to ensure that provision of SRFs for MW instruments is routine practise for future instruments and published on the SATURN portal. Furthermore to obtain wherever possible and practical the SRFs for existing and old instruments, and also to provide on the SATURN portal. discussed with Mitch. [Still valid. Brought to attention of GSICS EP chair at the GSICS EP meeting in Sochi, Russian, 2019.](#)

IIFS21-R12 Recommendation to WMO: WMO to pursue SATURN, and all agencies to actively contribute information to this portal (and two associated actions). [Reported. Still valid.](#)