



IWW14 Charge to Working Groups

Thursday, April 26, 2018



IWW14 Charge to Working Groups

- **WG1: Methods**
 - Chaired by Javier García Pereda and Jaime Daniels
- **WG2: Data Assimilation**
 - Chaired by Iliana Genkova and James Cotton



IWW14 Charge to Working Groups (WG1/2)

- CGMS High Level Priority Plan
- HLPP 3.2.1
 - Establish commonality in the derivation of AMV products where appropriate
 - Common QI from the 3rd AMV Intercomparison.
 - It was useful in the Inter-comparison for the improvement in the quality and consistency of different AMV datasets
 - AMV producers to include common forecast independent QI (as distributed by Steve Wanzong in his mail of 30 May 2017). Space exists in the new BUFR.
 - Will NWP users test/adopt the use of this?



IWW14 Charge to Working Groups (WG1/2)

- CGMS High Level Priority Plan
- HLPP 3.2.2
 - Potential recommendation for HRW producers to work within the NWP community - global and mesoscale domains, to determine optimal configurations.
 - Are derived parameters (divergence, vorticity) more appropriate for some applications?
 - Improve the assimilation of HRW
 - See discussion on plenary session.



IWW14 Charge to Working Groups (WG1/2)

A45.02 to CGMS space agencies, IROWG, IPWG, IWWG, ICWG, ITWG: CGMS International Science Working Groups and CGMS space agency members to formulate science questions, including the impact of data latency, in view of the 7th Impact Workshop in 2020 (ref. CGMS-45-WMO-WP-02) and provide these to lriishojgaard@wmo.int

- From CGMS-45 Final Report:
In view of the 7th NWP Impact Workshop scheduled for 2020, CGMS highlighted that the scientific question on the impact of data latency from polar-orbiting satellite data from NWP needs to be raised. CGMS recognized the increased complexity in carrying out such experiments, particularly the simulation of NRT data flows with technical issues related to observations timestamping. The impact of reduced latency from secondary missions should also be considered in future studies, noting that SNPP, JPSS-1 and eventually JPSS-2 will fly in parallel, and it will be instructive to investigate the expected benefit of low latency of parallel data streams on NWP.
- From Lars Peter Riishojgaard (WMO):
"CGMS has largely done its job I think - it is clear that data latency is an important issue and the impact of various levels of latency is expected to be featured at the next Workshop"

Is there anything we can send back to Lars, from any of the discussions.



IWW14 Charge to Working Groups (WG1)

(Cont'd)

A45.02 to CGMS space agencies, IROWG, IPWG, IWWG, ICWG, ITWG: CGMS

International Science Working Groups and CGMS space agency members to formulate science questions, including the impact of data latency, in view of the 7th Impact WS 2020 (ref. CGMS-45-WMO-WP-02) and provide these to Iriishojgaard@wmo.int

- **From the perspective of satellite-derived winds, what things would we as a group be interested in having NWP look at and assess? Some examples:**
 - Impact assessments of AMVs at varying resolutions, higher refresh rates, etc in global and regional NWP systems
 - Assess impact of AMVs whose heights are assigned via geometric techniques (e.g., stereo cloud heights)
 - Assess impacts of 3D winds (e.g., Aeolus Doppler Winds)
 - Other?
- **Discuss at IWW14 and report back any further input to WMO and report back to CGMS-46 for groups 1 and 2.**



IWW14 Charge to Working Groups (WG1/2)

IWW12.4 - IWWG community to agree a new standard BUFR template, which when rolled out should be adopted by all producers.

- Producers and users should work towards adopting now
 - Recalling IWW13 WG2 recommendations:
 - NESDIS: to make offline test data available for the new BUFR template as soon as possible once it has been approved by WMO (e.g., 1 time slot would be sufficient) for technical testing/implementation.
 - A 3 month overlap period of providing the same data in the new and old format should be provided, assuming the above-mentioned test data has been provided 9 months earlier.

Status update on readiness for new BUFR

Can an April 2019 deadline be met – will this be a problem?



IWW14 Charge to Working Groups (WG1)

- Can AMV producers quantify their dependence on NWP data (in the AMV algorithm and other products used for extraction – clouds?...)
- Is it possible to define a “tracking error” related to the shape/size of the AMV correlation surface? Populate new BUFR.
- AMV producers conduct impact assessments of stereo heights on AMV quality relative to IR based cloud height methods (given opportunities with overlap of geo data).



IWW14 Charge to Working Groups (WG1/2)

- NWP SAF
 - DWD height monitoring.
 - Feedback on analysis reports – still useful?
 - Can we rank features most important for producers to look at?



IWW14 Charge to Working Groups (WG 1/2)

- 3D Winds
 - Aeolus readiness
 - Update on hyperspectral winds vs radiance assimilation
- Scatterometer, MISR, others
- From Ad Stoffelen
 - Wind scatterometer data coverage is a main requirement for weather nowcasting and forecasting to reveal the fast mesoscale weather developments by providing spatially consistent surface winds, convergence and divergence patterns over the ocean and in coastal regions. The MetOp-A/B/C configuration provides a unique opportunity to obtain nearly full global coverage at 9:30 LST in both the morning and the evening for ASCAT, which fulfills the main user requirement for many applications supported by the IOVWST. As such, the IOVWST strongly recommends to maximize the ASCAT-A/B/C coverage over its lifetime.



IWW14 Charge to Working Groups (WG 1/2)

■ Administrative Items

- Extended Abstracts – Remove Requirement?
 - IWW12 – 63%
 - IWW13 – 52%
 - People are not submitting extended abstract, but intend to publish as journal article.
 - These do get cited though.
- Email Lists and webpages
 - A more permanent solution? No rush.. But by 2024 a replacement needs to be designated and in place.
 - Early career person?
- Wiki Pages
 - No activity, but can leave in place.



IWW14 Charge to Working Groups (WG 1/2)

- Feedback on IWW14
 - Let us know how we did.
 - Encouraged to fill out feedback forms.