

NWP WG

Action Items and Recommendations

ITSC-17, April 2010

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NPP/NPOESS

Action DA/NWP-1:

- Heather Kilcoyne (NOAA) will inform NWP WG (via mailing list) when the IPO **cal/val web site for NPP** instruments will be up.

Recommendation DA/NWP-1 to US Department of Defense:

- Noting that the NPOESS program is being restructured into two separate programs (JPSS of NOAA/NASA and one by DoD), the WG recommends that **imaging and sounding capabilities** should be included **on the DoD satellite**, ideally including MW and IR. Furthermore, data should be free and readily accessible to the general international user community.

Recommendation DA/NWP-2 to NOAA/NASA and US DoD:

- The short operational delivery time of the NPOESS system was an extremely attractive component of the system design. The WG recommends that the **Safety Net** system (ground receiving system) is retained in the NPOESS restructuring process for both satellite programs (i.e., JPSS and DoD).

Polar orbiting constellation/sounding

Recommendation DA/NWP-3 to all space agencies and WMO:

- The WG recommends that the constellation of at least **three orbits** (early morning, morning, and afternoon), each with full sounding capabilities (IR and MW), is maintained. The WG recommends **coordination between agencies** of the overpass times of operational satellites with sounding capability to maximize coverage (including, e.g., China, India).

Recommendation DA/NWP-4 to CMA:

- The WG recommends that CMA continues its efforts to make **FY-3A** data available in BUFR format to the international user community in near real time.

Action DA/NWP-2:

- Wei Han (CMA) will gather information on **FY-3C** and its instruments as well as follow-on missions and distribute this information to the WG members.

Recommendation DA/NWP-5 to DoD and other space agencies:

- The NWP WG recommends that future microwave sensors maintain a **sounding capability of the upper stratosphere and mesosphere**, in addition to tropospheric and stratospheric sounding capabilities, as is the case for SSMIS.

Other Future Systems

Action DA/NWP-3:

- Dave Ector (NOAA) will send the report from the upcoming first meeting of the IROWG (**International Radio-occultation WG**) to the NWP WG members via the mailing list.

Recommendation DA/NWP-6 to satellite agencies and WMO:

- The **geostationary and HEO (Molniya)** orbit is ideal for observing the rapidly changing component of atmospheric and surface fields. The WG recommends the use of these orbits for **high spectral resolution IR and/ or microwave sounder/imager** instruments. Ideally, if both are possible, the microwave and IR instruments should observe the same portion of the atmosphere at the same time.

Recommendation DA/NWP-7 to satellite agencies and WMO:

- The WG encourages further study of the benefits of **hyperspectral microwave instruments**.

DMSP F18 SSMIS data

Action DA/NWP-4:

- Sid Boukabara (NOAA) will contact NESDIS to ensure that when the DMSP F18 SSMIS data is available at NESDIS from FNMOC that it is also made available for wide distribution. Furthermore, Sid will ask NESDIS to ensure that users are promptly informed of data or instrument issues.

IASI dissemination

Action DA/NWP-5:

- Vincent Guidard (Meteo France) and Fiona Hilton (Met Office) will **revisit the selection** of the EUMETSAT 314-channel subset of IASI channels. This may lead to a proposal to include further channels.

Recommendation DA/NWP-8 to EUMETSAT:

- The NWP WG recommends that EUMETSAT investigates **lossless compression** methods for the dissemination of the full IASI spectrum in the context of disseminating data from 2 or more Metop satellites.

User Notification

Action DA/NWP-6:

- European NWP WG members will inform their EUMETSAT OPS WG representatives of changes desired in the scope and format of the notifications sent through the **UNS**.

Recommendation DA/NWP-9 to all relevant space agencies and WMO:

- The WG recommends that all relevant space agencies send information to users (including the NWP WG mailing list) about **planned changes** in data processing, formats, and other issues related to data as early as possible (preferably at least 6 months before the change).

RARS

Recommendation DA/NWP-10 to WMO:

- The NWP WG continues to **support fast delivery initiatives** (RARS) with extensions wherever possible. The WG believes that the system should continue to be low cost. Further extension towards global coverage is encouraged until the point is reached where further improvements are not longer cost effective.

Action DA/NWP-7:

- Jerome Lafeuille (WMO) will distribute the RARS user's **questionnaire** to the NWP WG mailing list.

Recommendation DA/NWP-11 to RARS coordination centers:

- The WG recommends that users be informed of **processing changes** and other issues regarding RARS as early as possible.

Action DA/NWP-8:

- Brett Candy (Met Office) will investigate how to inform users of **data anomalies noted in the routine intercomparison** between global and RARS data performed at the MetOffice (including the possibility of an automated warning system).

RTTOV User Group

Recommendation DA/NWP-12:

- The NWP WG recommends **setting up an RTTOV user group**, composed of members that do not actively participate in developing RTTOV software, to collect science requirements, and to establish a forum for technical and usage aspects. This group is expected to interact through internet and email.

Action DA/NWP-9:

- A) WG members will consult with their respective organizations to find **prospective members** of the RTTOV user group and will send an email with contact information to Fiona Hilton.
- B) Fiona Hilton will investigate the **technical options** to set up such a forum. She will also prompt CRTM manager, Paul Van Delst, about their experience.

Wiki Page Activities

Action DA/NWP-10:

- The NWP WG co-chairs will post the **action items** on the NWP WG wiki page and WG members will describe how action items were completed. WG members may obtain a password from Leanne Avila via email (with copy to the co-chairs), to be able to make changes to the Wiki page.

Action DA/NWP-11:

- Roger R. (met.no) will **convert ITWG ATOVS questionnaire** (in word format) to wiki format and include it in the NWP WG wiki page. WG members will update their information via the wiki page. NWP WG co-chairs will send a reminder to update the information at least once a year. A snapshot of the information will be taken once a year by co-chairs.

Regional Data Assimilation

Action DA/NWP-12:

- Roger R. (met.no) will create a **regional data assimilation page on the NWP WG wiki page**. Roger will also post the poster (impact of **single AMSU observation** on analyses increments at three NMS's) that he presented at ITSC-17 (Number 7.22) on this page.

Recommendation DA/NWP-13 to NMS's:

- The NWP WG recommends that **other NMS also participate** in the single-observation exercise (see Action DA/NWP-12) for other regions, if applicable, and that they contact Brett Candy and Roger R. to convey their results.

Action DA/NWP-13:

- NWP WG members involved in regional or limited area data assimilation will share their experience (experiment results, reports, papers, etc,..) on **bias correction procedures** on the regional data assimilation web page.

Monitoring

Action DA/NWP-14:

- Niels Bormann (ECMWF) will obtain a copy of Andrew Collard's ITSC-17 presentation on the **IASI usage survey** and include it on the NWP WG wiki page. He will also include a list of the **18 IASI monitoring channels** selected by Fiona Hilton after ITSC-16.

Recommendation DA/NWP-14 to NMS's:

- The NWP WG recommends that detailed **monitoring be available** on the NMS's monitoring web sites for at least the chosen 18 IASI monitoring channels (see action DA/NWP-14).

Recommendation DA/NWP-15 to NMS's:

- The NWP WG recommends that **monitoring web sites be freely accessible** on the internet (i.e. do not require a password).

RFI

Action DA/NWP-15:

- Co-chairs will create a section on the NWP WG wiki page which will contain examples of the existing or potential effects of RFI in NWP. Members are invited to add on this web page any relevant impact assessments or evidence found. Nancy Baker (NRL) will provide examples to start the page.

Miscellaneous

Recommendation DA/NWP-16 to the NMS's and NWP community:

- The NWP WG recommends that **verification scores** are displayed with error bars and indication of trial periods used.

Action DA/NWP-16:

- Wei Han (CMA) will put together a proposal for a **radiance bias and bias correction intercomparison exercise**. This should include specification of format to exchange relevant information and the scope of the intercomparison.

Recommendation DA/NWP-17 to NWP WG members:

- NWP WG members are strongly encouraged to make **use of the NWP WG mailing list**, in particular to report problems with instruments.