

## ***Minutes of Meeting***

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<b>Meeting Name</b>	:	3rd Meeting of the WMO RAI Dissemination Expert Group
<b>Meeting Reference</b>	:	EUM/OPS/MIN/12/3587, v1
<b>Meeting Date</b>	:	30 <sup>th</sup> September 2012
<b>Meeting Location</b>	:	Ghion Hotel, Addis Ababa, Ethiopia
<b>Minuted by</b>	:	Sally Wannop & Hans Peter Roesli
<b>Participants</b>	:	
<b>Distribution</b>	:	List of Participants plus Vincent Gabaglio; Stephan Bojinski; Félix Houton, Nils Netterich.
<b>Attachments</b>	:	Annex 1 – Agenda  Annex 2 - List of Participants  Annex 3 – Status of Actions  Annex 4 – Pending product requests

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### **1. Introduction**

The WMO RAI Dissemination Working Group met for the 3<sup>rd</sup> time at the occasion of the 10<sup>th</sup> User Forum for Africa, Addis Ababa, Ethiopia.

The Chair welcomed all participants and introduced the new expert representing Indian Ocean sub-region Kumar Ram Dhurmea from Mauritius. The Group was sorry to learn that former representative is deceased.

The Group adopted the agenda.

### **2. Review of Actions from previous meetings**

The Group reviewed the open actions from former meetings. The status of all actions is given in Annex 3.

During the discussion on the open actions the following key points were noted:

**Action 01/05** - it was agreed that WMO would contact Météo-France once again to discuss the matter of catalogue identification along with the need for documentation in support of the products provided via the RETIM service.

**Action 02/01** - it was agreed that ACMAD would support the WMO RAI Members by installing, as a pilot user, the NWC SAF software. Once successfully installed at ACMAD other users would be able to benefit from their installation knowledge. Both the South African and the Moroccan Met Services agreed to support NWC SAF software validation and to make available their display tools for NWC product visualisation. It was also noted that the RDT product had already been tuned to AMMA region. EUMETSAT confirmed that it would address the matter of support to African users with the NWC SAF.

**Action 02/03** – it was noted that the Group could further expand its links with the ocean, perhaps through JCOMM. New **Action 03/01** - WMO / Chair to contact JCOMM regional representative to discuss potential attendance at next meeting/teleconference.

**Action 02/17** - it was identified that many NMHSs require further training in particular in the areas of (i) NWP data usage and (ii) reception station display and system administration, the latter something to be addressed in the future MESA project.

New **Action 03/02** – WMO/EUMETSAT to discuss with NWP data providers future training opportunities for RAI Members.

New **Action 03/03** – EUMETSAT through the project user group to inform the MESA Technical Project team of the needs expressed by RAIDEG for adequate levels of training in the area of reception station display and system administration:

- Minimum of 10-days initial training
- Periodic refresher training courses
- Easy accessible and usable training materials

### **3. Update on the integration of RAIDEG into the RA-I structure**

WMO presented the document “Update on the integration of RAIDEG into the RA-I structure”, outline the "procedure" first developed by ET-SUP and subsequently approved by ICT-IOS and CBS, which formalises the role of RAIDEG within the WMO framework. Additionally, WMO presented an initial evaluation from the 2012 satellite data usage survey.

During the course of the discussion, it was emphasised that points of contact from the regional NMHSs need to be established, and maintained, in order to support the work of the Group (**Action 01/03**).

The Group proposed to recommend RAIDEG as a consultation body to WIGOS structure during the forthcoming UFA meeting; this was subsequently addressed in Session 1 of the 10<sup>th</sup> UFA.

New **Action 03/04** - WMO make available to the Group the results from the recent WMO satellite data usage survey to the Group.

#### **4. Dissemination Baseline Update Document EUMETCast- Africa**

EUMETSAT presented the EUMETCast-Africa Dissemination Baseline Overview document, (EUM/OPS/DOC/09/2445 v.4), focussing in the presentation on the new products introduced since the last meeting.

With regard to the implementation of changes requested to the ECMWF products, EUMETSAT indicated that the current update due for release later in October would satisfy most of the needs requested by the Group. However, it was noted that to date, the tropical cyclone information has not been included. Noting some confusion on the status of the ECMWF products, the following action was taken.

New **Action 03/05** - EUMETSAT to confirm to the Group exactly which ECMWF products are included within the forthcoming product upgrade.

After discussion of some SADC requests, the Group were particularly interested in having access to Cumulonimbus Tracking and Monitoring (Cb TRAM) from DLR. SAWS agreed to following action.

New **Action 03/06** - SAWS to further pursue discussions with DLR on access to the Cb TRAM product and to provide to EUMETSAT a Point of Contact at DLR.

New **Action 03/07** - EUMETSAT to include information on product frequency and other dissemination mechanisms in the next version of the EUMETCast-Africa Baseline document.

During the discussion, members of the Group requested that a merging of the SADIS EUMETCast data streams could be considered in future evolution. Following a discussion with Met Office, it has since been confirmed that due the target audience and nature of the data on SADIS, it is unlikely that the SADIS is considered as a candidate for inclusion in the EUMETCast baseline. The SADIS system is certified by ICAO and EUMETCast at this time is not.

The proposed modifications were well received by the Group.

#### **5. Report from each region**

- ECOWAS (West Africa): reported that the region was generally happy with PUMA2010, however a brief survey highlighted some lack of training in the area of system administration. It was reported that some success had been achieved regarding communication within the ECOWAS region, however further support from WMO in identify Points of Contact within the NMHS would be appreciated.

- SADC (Southern Africa): presented an evolution of the typical role of NMSs going beyond the standard meteorological applications into new areas like, oceanography, air pollution, agriculture and aviation, stressing the importance of application-driven products in these areas. In addition, high resolution imagery for use in pre/post disaster assessment would be of significant benefit.
- Maghreb (Northern Africa): commented that communication within the region had been difficult. No new product requirements have been identified at present.
- Indian Ocean: reported that the PUMA2010 installations were satisfactory. The Mauritius Meteorological Service has recently procured new Synergy enabled EUMETCast stations. The region identified a further need for products from microwave instruments like TPW, sea surface wind, SWH and ocean currents.
- CEMEC (Central Africa): The representative from CEMEC reported poor contact with other NMSs from the region. From the feedback received the PUMA2010 station in Gabon was reported to be out of service. It was noted that the AMESD project support were looking into the problem. Concerning products more marine products like, ocean currents, sea state, soil moisture, models were identified as being needed along with training support in their interpretation.
- IGAD (East Africa): emphasised that trouble-shooting of PUMA stations and training was a major problem for exploiting product usage).
- ACMAD: informed the Group of its continued need for NWC SAF products in particular RDT which it was currently receiving through ad hoc access provided by Météo-France. The representative additionally identified the need for soil moisture products. It was noted that the 25km ASCAT soil moisture product would be included in the PUMA 2010 upgrade.
- EAMAC: identified that further training was needed in the level 2 geostationary products provided by EUMETSAT and that user guides on NWP model output product usage were needed. The representative re-iterated the desire for HRV coverage over Western Africa to support among other things convection monitoring.

From the discussion some new product areas were identified and these should be further discussed at subsequent meetings/communications. The list is provided in Annex 4.

In addition the following actions regarding training were identified:

New **Action 03/08** - EUMETSAT to explore with Centre of Excellence improvements in the orientation materials for users on: EUMETCast/GEONETCast, PUMA/AMESD/MESA, RETIM.

New **Action 03/09** - EUMETSAT to consider the inclusion of training on the usage of geostationary products from Meteosat satellite in future training sessions.

Training in the AMESD project was insufficient, and PRs may not have sent the right person to the training and deployed them appropriately afterwards.

New **Action 03/10** - the following should be explored to improve the impact of training in future:

- PRs to assure the right technical staff are sent on such training, and subsequently deployed in ways that use their competency;
- RTCs/CoE to explore developing sustainable training in these areas.

## **6. Status of PUMA 2010 software upgrade activities**

EUMETSAT is preparing a Request for Quotation to (RFQ) for a one-off upgrade to the PUMA 2010 software to cater for the product modification since the original baseline was established at the start of the AMESD project. Noting that not all product modifications can be included in this upgrade priority is given to the NWP and EUMETSAT products. Feedback from the 2<sup>nd</sup> Meeting of the WMO RAI Dissemination Expert meeting has been taken into consideration.

It was noted that the final outcome on the products to be included in the software upgrade will be communicated to the group towards the end of 2012, once the negotiations with the supplier have been completed.

## **7. Introduction to 10<sup>th</sup> UFA Session 2 Data Access**

EUMETSAT introduced the plan for Session 2 at the 10<sup>th</sup> UFA indicating that this would be a good opportunity for the regional representatives to meet with the fellow NMHSs. It was suggested that the Group members act as rapporteur for their respective region.

## **8. Working arrangements**

It was suggested that the Group experiment with WebEx/Centra to facilitate on-going communication and discussion between formal face-to-face meetings. In addition, a future blog service may prove useful to allow for the exchange of ideas and comments.

## **9. Concluding Remarks**

The next face-to-face meeting is tentatively being considered for the 3rd week June 2013 (17-21 June) at WMO (or EUMETSAT). A European venue would give opportunity to invite 3rd party data providers, WIS representatives and EUMETSAT staff (including NWC SAF). It is proposed to draft an Agenda in the Jan-Feb 2013 timeframe.

## **Annex 1 – Meeting Agenda**

# ***3<sup>rd</sup> Meeting of the WMO RAI Dissemination Expert Group***

## ***Draft Agenda***

***30 September 2012***

***Ghion Hotel, Addis Ababa, commencing 10.00***

The **3<sup>rd</sup>** meeting of the **WMO RAI Dissemination Expert Group** will be held on 30 September 2012 at Ghion Hotel, Addis Ababa, Ethiopia. Meeting will begin at 10.00.

### **Introductory session**

- |              |                                                                                                  |                                                                                     |
|--------------|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>10h00</b> | <b>Welcome</b>                                                                                   | <b>James Kongoti – Chair<br/>Jerome Lafeuille – WMO<br/>Sally Wannop – EUMETSAT</b> |
| <b>10h15</b> | <b>Adoption of Agenda</b>                                                                        |                                                                                     |
| <b>10h20</b> | <b>Review of Actions from previous meeting</b>                                                   | <b>Sally Wannop - EUMETSAT</b>                                                      |
| <b>10h30</b> | <b>Update on the integration of RAIDEG into the RA-I structure</b>                               | <b>Jerome Lafeuille - WMO</b>                                                       |
| <b>11h00</b> | <b>Presentation &amp; Discussion on Dissemination Baseline Update Document EUMETCast- Africa</b> | <b>Sally Wannop - EUMETSAT</b>                                                      |
| <b>12h30</b> | <b>Lunch Break</b>                                                                               |                                                                                     |
| <b>13h30</b> | <b>Report from each region – tour de table (c. 10-mins per region)</b>                           |                                                                                     |

*15h00 Coffee break*

**15h30 Status of PUMA 2010 software upgrade activities Sally Wannop - EUMETSAT**

**16h00 Introduction to 10<sup>th</sup> UFA Session 2 Data Access Sally Wannop - EUMETSAT**

**16h15 Working arrangements – open discussion on identifying improvements to the team structure and regional support James Kongoti - Chair**

**16h45 Conclusions of Meeting & Review of Actions James Kongoti – Chair**

**17h30 End of the Meeting**



## **Annex 2 List of Participants:**

### **Regional Representatives:**

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## Annex 3 – Status of Actions

List of Open Actions			
Action #	Action item description	Due date	Actionee
01/03	<b>Establish a working group network</b> - Members are invited to establish a communication network within their region/sub-region to identify specific requirements from both the NMHSs and from relevant non-meteorological users, e.g. RICs, AMESD thematic regions, research institutes, and to forge links with JCOMM, etc.	June 2013	RAIDEG Members & WMO
01/04	<b>Promoting the use of EUMETCast</b> - Members are invited to promote the use of EUMETCast in support of specific projects within their region/sub-region, e.g. Severe Weather Forecast Demonstration Project, etc, and for other non-meteorological usage.	June 2013	RAIDEG Members
01/05	<b>Catalogue identification</b> – WMO to invite Météo-France to include RETIM-Africa metadata in the EUMETSAT Product Navigator or a similar online catalogue and to include in this meta data links to available user documentation.	June 2013	WMO
02/01	<b>NWC-SAF software installation</b> – Members are encouraged to install the NWC-SAF (MSG package) for their own use and to support validation of the software. To ease regional implementation, ACMAD are invited to take the lead on this installation with the support from EUMETSAT. SAWS & MMS to offer their support in validation and product visualisation.	June 2013	ACMAD, SAWS, MMS & EUM
02/09	<b>Coordinating update cycles for NWP data</b> - EUMETSAT to consult with NWP centres on update cycle	June 2013	EUM
02/10	<b>Contents of NWP data streams</b> - EUMETSAT to establish and maintain content list as part of the transition from MDD to the new WMO-RAI channel on EUMETCast	June 2013	EUM
02/11	<b>Requests for new ECMWF products/parameters</b> - ACMAD to officially request changes to ECMWF services	June 2013	ACMAD
02/13	<b>Removal of products from baseline</b> - WMO to consider procedure loop for removal of products	June 2013	WMO
02/14	<b>Identification of focal points within NMHSs</b> - WMO to request each NMHS to provide focal point to liaise with regional representative	June 2013	WMO
03/01	<b>Closer links with ocean community</b> - WMO / Chair to contact JCOMM regional representative to arrange attendance at next meeting/teleconference	Feb 2013	WMO / Chair
03/02	<b>Training in NWP data usage</b> - WMO/EUMETSAT to discuss with NWP data providers future training opportunities for RAI Members.		

03/03	<b>System administration training in future MESA project</b> - EUMETSAT through the project user group to inform the MESA Technical Project team of the needs expressed by RAIDEG for adequate levels of training in the area of reception station display and system administration: <ul style="list-style-type: none"> <li>• Minimum of 10-days initial training</li> <li>• Periodic refresher training courses</li> <li>• Easy accessible and usable training materials</li> </ul>	Dec 2013	EUM
03/04	<b>WMO Survey results</b> - WMO make available the results from the recent WMO satellite data usage survey	Dec 2012	WMO
03/05	<b>Status of ECMWF upgrades</b> - EUMETSAT to confirm to the Group exactly which ECMWF products are included within the forthcoming product upgrade	Oct 2012	EUM
03/06	<b>Access to DLR Cb TRAM data</b> - SAWS to further pursue discussions with DLR on access to the Cb TRAM product and to provide to EUMETSAT a Point of Contact at DLR	Jan 2013	SAWS
03/07	<b>EUMETCast-Africa baseline update</b> - EUMETSAT to include information on product frequency and other dissemination mechanisms in the next version of the EUMETCast-Africa Baseline document	May 2013	EUM
03/08	<b>Generic EUMETCast training</b> - EUMETSAT to explore with Centre of Excellence improvements in the orientation materials for users on: EUMETCast/GEONETCast, PUMA/AMESD/MESA, RETIM	Dec 2013	EUM / WMO CoE
03/09	<b>Training in use of Meteosat products</b> - EUMETSAT to consider the inclusion of training on the usage of geostationary products from Meteosat satellite in future training sessions	Jun 2013	EUM
03/10	<b>Generic training improvements</b> - The following should be explored to improve the impact of training in future: PRs to assure the right technical staff are sent on such training, and subsequently deployed in ways that use their competency; RTCs/CoE to explore developing sustainable training in these areas	-	RTC/CoE/ PRs

## Annex 4 – Pending Product Requests

Date of Entry	Data Type	Data Provider	Product Name	Coverage	Product Description	Format	File Size	Frequency	Requesting Region	EUMETCast Status	EUMETSAT Response to Request
2011/06	Satellite Product	SAWS	Combined Instability Index(CII)	Africa-South of Equator	CII is a product that combines the average of 4 Instability indices (KI,LI, PW,TT) to indicate the probability of convective development later in the day. This product is useful as a nowcasting tool for early warning of convective activity.	Binary	0.2 MB (Zipped)	Between 0300 and 1400 UTC- every 15 minutes. 44 (per day)	SADC	New	Pending initial discussion with Data Provider.
2011/06	Satellite Product	SAWS	Hydro-Estimator (HE)	Africa-South of Equator	HE is a Quantitative Precipitation Estimation (QPE) technique combining the MSG-satellite and numerical model precipitation estimation. The MSG 10.7 $\mu$ m brightness temperature is used together with the Unified Model (UM) from the UK-Met Office.	Binary	0.2 MB (Zipped)	96 / day	SADC	New	Pending initial discussion with Data Provider.
2011/06	Satellite Product	SAWS	Southern Africa Limited Area Model (LAM)	Africa-South of Equator	UK Met Office- Unified Model (UM) output for Africa South of the equator in a 12 x 12 km spatial resolution, 3 hour temporal resolution for a 48 hour Forecasting period . Plans are to increase the forecasting period to 72 hours to coincide with the WMO definition of Short Range Forecasts	GRIB	tbd	1 / day	SADC	New	Pending initial discussion with Data Provider.

Date of Entry	Data Type	Data Provider	Product Name	Coverage	Product Description	Format	File Size	Frequency	Requesting Region	EUMETCast Status	EUMETSAT Response to Request
2011/06	Satellite Product	German Aerospace Center (DLR)	Cumulonimbus Tracking and Monitoring (Cb TRAM)	Africa	Early detection and tracking of convection. This product is useful as a now casting tool for disaster management purposes.	XML	≈2 MB	96 / day	SADC	New	Pending initial discussion with Data Provider.
2011/06	Satellite Product	O3M SAF	Near Real Time Total Column - Metop (NTO)	Global	The Near Real Time Total Column (NTO) product provides information about total columns of two trace gases in the atmosphere: O3 (Ozone) and NO2 (Nitrogen Dioxide), as well as tropospheric NO2.	BUFR	30 KB	250 / day	SADC / North Africa	EUMETCast -Europe	Approved in Baseline - Pending implementation
2011/06	Satellite Product	O3M SAF	Near Real Time Ozone Profiles - Metop (NOP)	Global	The NRT Ozone Profile (NOP) product provides ozone profiles reported as partial columns, in Dobson Units, between 41 pressure levels logarithmically spaced between and including surface pressure and 0.1 hPa	BUFR	45 KB	250 / day	SADC / North Africa	EUMETCast -Europe	Approved in Baseline - Pending implementation
2011/06	Satellite Product	NWC SAF	Nowcasting Products derived from the MSG software package	Meteosat Full Disk	Selection of the NWC SAF products, e.g. Rapid Developing Thundrstorm Product	~	~	~	ACMAD	EUMETCast -Europe	Pending initial discussions with NWC SAF

Date of Entry	Data Type	Data Provider	Product Name	Coverage	Product Description	Format	File Size	Frequency	Requesting Region	EUMETCast Status	EUMETSAT Response to Request
2011/06	Satellite Product	EUMETSAT	IASI Sounding Products (5 products)	Global	Ozone, Trace Gases, Surface Emissivity, Cloud Parameters, Atmospheric Temperature Water Vapour	BUFR	~400 KB	480 / day	SADC / North Africa	EUMETCast -Europe	Approved in Baseline - Pending implementation
2011/06	Satellite Product	EUMETSAT	Metop/NOAA MHS GDS Level 1	Global/Africa	MHS GDS from both Metop and NOAA. Vertical atmospheric humidity profile retrievals to complete the gap of in situ vertical sounding observations in Africa. Data could be regionally subset for Africa.	BURF	26 KB	480 day	ACMAD / ECOWAS	EUMETCast -Europe	Pending user evaluation of the ATOVS Sounding Products
2011/06	Satellite Product	EUMETSAT	Metop/NOAA AMSU GDS Level 1	Global/Africa	AMSU-A GDS from both Metop and NOAA. Vertical atmospheric humidity profile retrievals to complete the gap of in situ vertical sounding observations in Africa. Data could be regionally subset for Africa.	BUFR	26 KB	480 day	ECOWAS	EUMETCast -Europe	Pending user evaluation of the ATOVS Sounding Products
2011/06	Satellite Product	EUMETSAT	IODC Meteorological Products	Meteosat Full Disk 57 deg E	5 Meteorological products: Clear Sky Radiances, Clear Sky Water Vapour Winds; Cloud Analysis, Expanded Low-resolution Cloud Motion Winds, Upper Tropospheric Humidity.	BURF	~1.0MB	24 / day	IOC	New	Approved in Baseline - Pending implementation

Date of Entry	Data Type	Data Provider	Product Name	Coverage	Product Description	Format	File Size	Frequency	Requesting Region	EUMETCast Status	EUMETSAT Response to Request
2012/10	Satellite Product	tbc	High-Resolution Imagery	Africa/Regional	Very high resolution image scenes/tiles in support of pre and post disaster monitoring	~	~	~	SADC	New	Pending further analysis by RAIDEG
2012/10	Satellite Product	tbc	Microwave instrument data	Africa/Regional	Microwave instrument data to support precipitation monitoring. Potential sources could be SSMIS, TRMM, Megha-Tropiques.	~	~	~	IOC	New	Pending further analysis by RAIDEG
2012/10	Satellite Product	tbc	Ocean current and significant wave height	Africa coastal regions	Ocean current and significant wave height information from missions like Cryosat-2, SARAL, HY-2 & Oceansat-2.	~	~	~	IOC / CEMEC	New	Pending further analysis by RAIDEG
2011/06	Model Output	ECMWF/Met Office	Vertical vorticity; Theta Prime W; Dew Point Temperature;	Global/Africa	Vertical vorticity; Theta Prime W; Dew Point Temperature for standard pressure levels (925 down to 200). Every 6-hours	~	~	every 6-hrs	ECOWAS /EAMAC / ACMAD /IOC	New	Partially implemented in ECMWF upgrade - pending request/agreement from ACMAD to ECMWF to receive additional levels/time steps

Date of Entry	Data Type	Data Provider	Product Name	Coverage	Product Description	Format	File Size	Frequency	Requesting Region	EUMETCast Status	EUMETSAT Response to Request
2011/06	Model Output	ECMWF / Met Office	Temperature; Wind; RH	Global/Africa	Temperature, Wind & RH products for standard pressure levels (925 down to 200). Every 6-hours	~	~	every 6-hrs	ECOWAS /EAMAC / ACMAD /IOC	New	Partially implemented in ECMWF upgrade - pending request/agreement from ACMAD to ECMWF to receive additional levels/time steps
2011/06	Model Output	ECMWF	Tropical Cyclone Tracks	Global	Surface cyclone tracks	~	~	~	IOC	New	Pending check with Data Provider
2011/06	Model Output	ECMWF / Met Office	Ocean Model output	Global/Africa	Model outputs for Significant Wave Height, wave mean period, wave mean direction	~	~	every 6-hrs	ECOWAS /EAMAC / IOC / IGAD	New	Partially implemented in ECMWF upgrade - pending request/agreement from ACMAD to ECMWF to receive additional time steps
2011/06	Model Output	ECMWF	Seasonal Forecasts	Africa	Seasonal SST	~	~	~	IOC	New	Pending check with Data Provider



Date of Entry	Data Type	Data Provider	Product Name	Coverage	Product Description	Format	File Size	Frequency	Requesting Region	EUMETCast Status	EUMETSAT Response to Request
2011/06	Model Output	DWD	Global Model	Global/Africa	GME oupt - contents tbc	~	~	every 6-hrs	ECOWAS /EAMAC / ACMAD	New	Pending analysis by Data Provider
2011/06	Model Output	DWD	Model Output Statistics (MOS)	Africa	MOS Contents tbc	~	~	~	ECOWAS /EAMAC / ACMAD	New	Pending analysis by Data Provider
2011/06	Model Output	NOAA NCEP	GFS for Africa	Africa	GFS model output with regional African coverage including the Indian Ocean	GRIB2 / Web structure	~	~	ECOWAS / EAMAC / ACMAD / IGAD / CEMAC / IOC	New	Approved in Baseline - Pending implementation Web structure to be implemented