

# Report From WMO RAI Dissemination Expert Group (RA1DEG)

11 – 12 June 2013, Geneva

By

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## **Introduction**

The development and requirements of the meteorological/environmental data streams and satellite derived products differ significantly among the WMO Members. In cognizance of these limitations, each of the WMO Regions requires interactions between the Data Providers, Product Producers and End Users (National Meteorological and Hydrological Services (NMHSs), Training Centres and Regional Climate Centres). In this context, the data and products disseminated will satisfy or reflect the needs of a Region.

## **Composition of the Expert Group**

Taking into account that NMHS in RA-1 have increasing needs for data from various satellites, for products from non-satellite sources such as MDD, NWP or for products from African NMHSs, Centres of Excellence, and other environmental monitoring organizations in Africa and recognizing the essential value of EUMETCast to fulfill these needs, a **“EUMETCast products and dissemination” Expert Group was established by WMO, in cooperation with EUMETSAT.**

The Expert Group is composed of experts from the:-

### **a) National Meteorological Services;**

- i. Morocco, for Northern Africa,
- ii. Senegal, for Western Africa,
- iii. Cameroon, for Central Africa,
- iv. South Africa, for Southern Africa,
- v. Mauritius, for Indian Ocean region, and
- vi. Kenya, for Eastern Africa.

### **b) Regional Training and Climate Centres (IMTR, SAWS, EAMAC & ACMAD);**

### **c) EUMETSAT; and**

### **d) WMO.**

## **Scope**

The primary scope of the Expert Group is to **identify and document** the needs of the Region in the areas of **meteorological/environmental data and satellite derived products** in order for Members to fulfill their national or international obligations in support of protection of environment, life and property and spur their socio-economic developments. Specifically, the Expert Group is to:-

- a) Collect, review and maintain requirements for access to meteorological and environmental data and products by NMHSs and partner organizations in Africa,
- b) Analyze the requirements for satellite-based products expressed by African NMHSS, Centres of Excellence, Training Institutes and other environmental

monitoring organizations in Africa making use of EUMETCast and GTS dissemination services,

- c) Make recommendations on the requirements for products and on the assignment of priorities, aiming at optimizing product dissemination through EUMETCast or the GTS.

### **Issues under consideration**

The Group carried out the following tasks:

- Identified the data/products including non-satellite sources for consideration in the inclusion in the EUMETCast Africa service data stream
- Considered the RA1 needs for the utilization of the satellite information including NWP products
- Identified the training needs in the satellite and NWP interpretations
- Considered interaction with the WMO new initiatives such WIGOS, WIS and GFCS

### **PUMA 2010 Stations**

The Group noted that the stations were deployed successfully through the ASMED project and forecasters including systems administrators were also trained. S/W upgrades were carried through the support of the EUMETSAT.

### **Milestones**

- i. The **WMO RA 1 Dissemination Expert Group (RA1DEG)** held its first meeting on 26<sup>th</sup> September, 2010 during the 9<sup>th</sup> EUMETSAT User Forum in Africa, at Ouagadougou in Burkina Faso. The Group formulated the Terms of Reference, elected the chairperson and drew-up the working programme;
- ii. The second meeting of the **RA1DEG** was held from 18<sup>th</sup> – 30<sup>th</sup> June, 2011 at EUMETSAT HQs, Darmstadt, Germany. The Group including UK Met Office, ECMWF, DWD, and Meteo-France reviewed:-
  - a. The EUMETCast Baseline Document (EUMETSAT and third party products) and future needs of RAI;
  - b. The baseline products on EUMETCast – Africa service were retained;
  - c. The status of the PUMA-2010 satellite receiving stations in Africa. The meeting appreciated the good progress in the deployment of the stations and training of the technical and users initiatives;
  - d. Requirements for new products; and
  - e. Functionalities of the PUMA 2010 stations and raised concern about the visualization of some products like VITO products ; Meteosat CSR & CRM &TH; LSA SAF; MODIS Aqua (terra included); OSI SAF (Sea Ice); TAMSAT; ATOVS sounding products; FY-2E products; ASCAT L2; AVISO products; MODIS Ocean colour; Jason-2 OGDR; EUMETnet products;

DevCoCast products; AMESD SADC. Thema products; some model output parameters.;

- iii. The third meeting of the **RA1DEG** was held on 30<sup>th</sup> September, 2012 at Ghion Hotel, Addis Ababa, Ethiopia. The Group reviewed:-
  - a. Actions from the previous meetings;
  - b. EUMETSAT compiled a wish list of meteorological/environmental data/products and NWP products for consideration in the EUMETCast – Africa service;
  - c. WMO recognized the vital role of RADEG and proposed to establish similar Groups in other Regions, during the CBS – XV meeting in Jarkata, Indonesia from 10<sup>th</sup> – 15<sup>th</sup> September, 2012;
  - d. Noted the successful deployment of the PUMA 2010 Stations and training of User and Technical personnel;
  - e. Noted the implementation of automatic updates of PUMA 2010 Stations through EUMETCast-Africa service.
- iv. The Group also identified the meteorological/environmental data/products available through the existing services (GTS, Internet, Bilateral FTP transmission, Direct readout, MDD, Multi-mission broadcast services such as GEONETCast, etc), that could be included in the EUMETCast-Africa;
- v. EUMETSAT in conjugation with WMO consolidated all the comments and concerns by the Group and developed a strategy for implementing the changes requested; and
- vi. EUMETSAT released an updated baseline document on “EUMETCast-Africa Dissemination Baseline Overview”.

### **EUMETCast – Africa Baseline**

EUMETSAT currently disseminates on the EUMETCast – Africa service:

- i. The near real-time data (Level 1.5 ) from the Meteosat 9 (0 degree service) and 7 (57.5 degrees E - IODC service);
- ii. Level 2 products generated by EUMETSAT Central Application Facilities;
- iii. Selected products from the Satellite Application Facilities (SAFs);
- iv. Foreign Satellites data;
- v. Environmental Satellites data/products; and
- vi. Others from non-satellite sources like MDD, Lightning Detection, Africa Limited Area Model Output (Africa LAM, ECMWF, RETIM-Africa, ARPEGE etc).

## Action required

The following issues need to be addressed if the NMHSs have to optimally utilize all the data/products available on the EUMETCast-Africa service:-

**a. Establish a Working Group Network:**

WMO to invite the NMHSs to designate a focal point who would liaise with the Regional Expert Members about the PUMA-2010 Station functionality and problem troubleshooting;

**b. Training Opportunities:**

WMO, EUMETSAT and other Development Partners to continue with the offering of training opportunities/fellowships (Technical and Users) to ensure the exploitation of current and new products;

**c. Utilization of all data/products available on EUMETCast Africa Service:**

Provision for activation of all the icons on the PUMA-2010 Station in future programmes e.g MESA;

**d. PUMA 2010 Stations S/W upgrades:**

EUMETSAT to consider supporting options for S/W upgrades and to bundle modifications of the PUMA 2010 stations to enhance optimal exploitation of the new/modified products disseminated through the EUMETCast – Africa service;

**e. Baseline Products:**

EUMETSAT to establish and continue to maintain content list and consider providing the METOP products to the African user community; Consider new baseline products for MESA and engage the users in the development of the system specifications;

**f. Interpretation and use of the NWP products:**

ACMAD and other Regional Centres are invited to consider providing training opportunities in the interpretation and use of the NWP products;

**g. Nowcasting software:**

ACMAD and other Regional Centres are invited to consider implementing the installation and validation of the SAFs (Nowcasting, NWP) S/W relevant to the African Users' needs. ACMAD to take the leading role in the installation of the S/W process; and

**h. Future structure of RA1DEG:**

WMO to consider anchoring RA1DEG into RA1 Subsidiary Bodies structure especial in the Working Group on Observations and Infrastructure such as Regional WIGOS structure.

## Membership

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