

PUMA OPERATIONS IN KENYA

- BY
- SOSPETER MUIRURI
- KENYA METEOROLOGICAL DEPARTMENT

BACKGROUND

- SYNERGIE SYSTEM
- SYNERGIE has been continuously developed by Météo-France since 1989.
- It is a powerful tool for the operational meteorology forecaster. With SYNERGIE, not only is it possible to display meteorological data, but also to extract information from this data, as well as enter expertise data or format documents produced by forecasters

SYNERGIE

- SYNERGIE assists forecasters in all of their activities which include but not limited to: **understanding the situation (eg current weather), sending forecasts, conceptual forecast modelling, exchanging individual assessments between forecasters, and forecast results presentation in the form of documents.**

KENYA MET EUMETSAT UTILIZATION

- KMD has mainly been dependent on EUMETSAT for real time satellite data access. This is achieved via EUMETCast which supports the dissemination of environmental data streams and products which include:
 - Meteosat 1st and 2nd generation image data
 - EUMETSAT meteorological products
 - NOAA/NESIS Ocean colour products
 - DWDSAT products from DWD
 - ERS SCAT and QuikSCAT products from KNMI

UPGRADES

- UPGRADING OF THE SYNERGY HAS ENABLED INTEGRATE NEW DATA FORMATS AND ALSO USER REQUIREMENTS SUCH AS:
 - • New WMO formats,
 - • New data,
 - • New methodologies,
 - • New features.

MAIN CHARACTERISTICS OF PUMA 2015

- Quick access to many types of data
- • Numerous operational modes
- • Numerous types of data presentation
- • An efficient and flexible macro-instruction system
- • Well adapted assessment data graphic production tools
- • An open and modular design
- • An ergonomic interface based on the multiple window concept
- • Easy to use

PUMA 2015

- THROUGH EUMETcast , WE ARE ABLE TO ACCESS THE FOLLOWING
- Meteosat High Rate SEVIRI Image Data - 0° (HR-SEVIRI),
- Meteosat HRI Image Data - Indian Ocean Coverage (HRI),
- Meteosat Low Rate SEVIRI Image Data - 0° (LR-SEVIRI),
- Meteosat Meteorological Products (MSG MPEF)
- Data Collection and Retransmission (DCP)
- Meteorological Data Dissemination (MDD)
- MTSAT-1R (3-hourly) (MTSAT)
- Land SAF products for Africa (LSA SAF)
- Ocean Sea Ice SAF products (OSI SAF)
- Vegetation for Africa Products (VITO)
- MODIS Fire Products (NOAA/NESDIS)
- MODIS Active Fires - Southern Africa (CSIR)
- MPE with the ability to compute 6 and 24 hr rainfall accumulations

- Atmosphere and marine model data from a range of providers making data available on EUMETCast (in standard formats (grib / netcdf), displaying surfaces (e.g. 300mb PV), data on a surface/level e.g. (500hPa) height and vertical cross sections. This includes model data from the UKMO, DWD, GFS, Wave Watch III (WW3), ECMWF (and possibly ensemble products in standard formats).

Among the newly introduced products include

- :GOES (15) West (3-hourly) (GOES-W)
- FY2 Products (hourly) (CMA)
- Altimeter wave, wind, (Sea Surface height)SSH, (Sea Surface height from Altika/SARAL mission) SSHA products from the following satellites: Jason 2 and follow on satellites, Altika and (optional) Sentinel 3.
- TAMSAT Rainfall products
- MSG4 compliance