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PLANS FOR POST-EPS

This paper presents the status of preparation of the EUMETSAT Post-EPS Programme and provides relevant planning elements.

PLANS FOR Post-EPS

1 INTRODUCTION

This paper shortly presents the status and planning for the preparation of the EUMETSAT Post-EPS Programme, providing some information on the addressed applications and the process leading to consolidation of mission requirements.

2 STATUS OF ACTIVITIES

The EUMETSAT Post-EPS Programme is under preparation at EUMETSAT and in its Phase 0 activities, focused on the User Consultation process and the definition and consolidation of mission requirements.

The status of the user consultation activities, leading to the generation of Position Papers by the Application Experts Groups setup to this aim, had an important milestone at the 1st Post-EPS User Consultation Workshop held on 29-30 March 2006. Following this workshop, the position papers were consolidated and presented to the EUMETSAT Council, to create the basis for the formulation of Post-EPS mission requirements and programmatic assumptions and requirements.

The following Application Expert Groups Position Papers have been endorsed by the EUMETSAT Council in July 2007:

- Requirements for Operational Atmospheric Chemistry Monitoring in the Post-EPS Time Frame beyond 2020;
- Post-EPS Developments on Atmospheric Sounding and Wind Profiling;
- Generic Requirements on Climate Monitoring;
- Cloud, Precipitation and Large Scale Land Surface Imaging (CPL) - Observational Requirements for Meteorology, Hydrology and Climate;
- Requirements for Ocean Observations relevant to Post-EPS.

Activities dedicated to the generation of mission and programmatic requirements have started in the Secretariat, with the support of an external Mission Experts Team. Mission requirements are being derived from the Position Papers of the Application Experts Groups and will be the basis, together with programmatic requirements and constraints, for phase 0 industrial studies led by ESA on sensor and system architecture concepts. These studies would start in early 2007.

The prioritisation of the geophysical variables calling for satellite observations, which could not be completed by the time of the issue of the above Position Papers, has been the subject of an effort by the Secretariat. A harmonisation across Position Papers of relevant criteria, including the notion of feasibility from GEO, LEO and in-situ, in order to derive a priority for a possible LEO system, has been pursued and consistently applied. Tables of geophysical variables with such prioritisation have been generated and circulated within the relevant Application Expert Groups, collecting any feedback.

From the above Position Papers, the derivation of relevant mission requirements has been initiated, in parallel with the definition of programmatic assumptions and requirements.

Mission requirements mainly contain the spectral, radiometric, and geometric specifications of the observations needed for the generation of the products identified in the Position Papers, to which traceability is maintained.

Programmatic assumptions and requirements mainly address the high level programme objectives, the continuity and evolution of EPS, the co-operation framework and the role of Post-EPS within relevant international initiatives.

To support the generation of mission requirements, a Post-EPS Mission Experts Team (PMET) has been set-up, largely based on the Applications Experts Groups of the User Consultation.

A first meeting with the PMET was held in May 2006, and a second in September 2006.

Mission and programmatic requirements are being documented in relevant documents (MRD and PARD), reviewed within the Secretariat and with the support of the PMET and ESA. The documents will be the basis for phase 0 industrial studies led by ESA on sensor and system architecture concepts to be started at the beginning of 2007.

The MRD and PARD will be available on the EUMETSAT Web as soon as consolidated; the endorsed Position Papers of the Application Expert Groups are already available.

In the mean time, some progress is also registered in terms of preliminary discussions with NOAA on the future cooperation on polar system in view of establishing a Joint Polar System following EPS, These discussions focused on the requirements management framework to be setup to support cooperation.

3 PLANNING

The following main planning elements are assumed for the preparation of the Post-EPS Programme:

Phase 0:	2004-2008
Phase A:	2008-2010
Phase B:	2010-2012
Phase C/D:	2012-2018
Need date:	2019, for the first in-orbit elements
Phase E:	Operations and Utilisation: 15 years after commissioning of the first in-orbit elements.

4 CONCLUSIONS

CGMS is invited to take note of the progress of preparation of the Post-EPS Programme at EUMETSAT.