



CGMS-37 EUM-WP-08
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Prepared by EUMETSAT
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PLANS FOR POST-EPS

This paper addresses the status and plans for the preparation of the EUMETSAT Post-EPS Programme.

The Post-EPS is currently at the end of the Phase 0, with the Phase A planned to start in early 2010 in cooperation with ESA and relevant National Agencies.

The Post-EPS is part of the Joint Polar System, whose definition with NOAA is progressing as well.

Action/Recommendation proposed:
CGMS to take note of the status and plans of the Post-EPS Programme

Plans for Post-EPS

1 INTRODUCTION

This document presents the status of the Post-EPS Programme Preparation.

The Post-EPS Phase is running and will be completed in December 2009 with the Planned Mission Definition Review. The Phase A activities will start at conclusion of the MDR and will address the feasibility studies at mission, system, space and ground segment level.

The main Post-EPS planning elements and constraints are as follows:

Post-EPS Programme Phasing Elements	Date
Post-EPS Phase 0	2004-200
Post-EPS Mission Definition Review (MDR)	Q4 2009
Post-EPS Phase A	2010-2011
Post-EPS System Preliminary Requirements Review (PRR)	Q3 2011
Post-EPS Phase B	2011-2013
Post-EPS System Preliminary Design Review (PDR)	2013
Post-EPS Phase C/D	2013-2020
Launch readiness of first Post-EPS Satellite (priority missions)	2018
Launch readiness for the second Post-EPS Satellite	2010

2 ACHIEVEMENTS

The Post-EPS Mission Requirements Document (MRD) was unanimously approved at the 67th EUMETSAT Council meeting as a basis for the continuation of Phase 0 activities and the preparation for Phase A.

Consistent feedback on technical drivers and feasibility issues within the MRD are being received from the Phase 0 industrial studies led by ESA, triggering a reanalysis, with the support of the Mission Experts Team, of the relevant mission requirements and updates where appropriate.

The NWC Application Experts Group, which had previously made an assessment of the potential impact of EPS instrument failures, documented in a report addressed to EUMETSAT Delegations, made a similar assessment with respect to the Post-EPS candidate missions and instruments. Relevant inputs were collected by the Secretariat for an update of the report in the near future, also taking into account the relevant discussion held at the EUMETSAT Science Working Group level.

No updates have been done to the Post-EPS Programmatic Assumptions and Requirements document in the reporting period.

Studies are performed at Mission, System and Space Segment level to support the objectives of the Phase A and prepare for the Phase A.

ESA manages the parallel Phase 0 industrial studies and continues to provide remote sensing expertise in reviewing the mission requirements by EUMETSAT.

With Phase 0 activities planned to conclude in 2009, the coordination with ESA addresses the planning of Phase A and the steps leading to the set-up of the Post-EPS Programme.

Concerning the definition of the EUMETSAT/NOAA Joint Polar System, discussion at management and technical level continues on the basis of the preliminary cooperation concepts established in 2008.

The Post-EPS Programme Preparation also addresses the National initiatives of Germany to provide for the Post-EPS a Visible Infrared Imager (METimage, currently in Phase B at DLR level) and of CNES to perform Phase A studies for a IASI Next Generation instrument.

For some of the Post-EPS mission requirements the opportunity exists of fulfilling them through the acquisition of data from satellites of other agencies (in addition to NOAA and outside of the JPS).

Based on a dossier by the WMO of the missions planned worldwide as part of the Global Observing System in the next decade, and up to the Post-EPS timeframe (which was made available and illustrated in occasion of the 2nd Post-EPS User Consultation Workshop held in Darmstadt on 3-4 February 2009), instruments that can be assumed to provide complementary observations to EPS and/or Post-EPS have been identified as follows, listed by organisation:

JAXA (Japan Aerospace Exploration Agency):

- AMSR-2 (Advanced Microwave Scanning Radiometer 2) on GCOM-W (Global Change Observation Mission - Water);
- Seawinds on GCOM-W;
- SGLI (Second-generation Global Imager) on GCOM-C (Global Change Observation Mission - Climate).

CMA (China Meteorological Administration):

- MWRI (MicroWave Radiation Imager) on FY-3;
- MERSI (Medium Resolution Spectral Imager) on FY-3;
- ERM (Earth Radiation Measurement) on FY-3;
- SIM (Solar Irradiance Monitor) on FY-3;
- TOU/SBUS (Total Ozone Unit / Solar Backscatter Ultraviolet Sounder) on FY-3.

ISRO (Indian Space Research Organisation):

- Oceanographic missions, such as SARAL and OceanSat-2.

Contacts have been established accordingly with these organisations for an exploration of opportunities during Phase A, starting with the exchange of technical and programmatic information.

3 Planning

The following main tasks are planned to be performed in the coming months:

Conduct of scientific studies in support of the consolidation of mission requirements.

Consultation of the Post-EPS Mission Expert Team for the review of mission requirements and outcome of scientific and technical studies; the next meeting of the PMET is planned for 5-6 November 2009.

Preparation and conduct of the Mission Definition Review, concluding Phase-0 activities, in November-December 2009.

Preparation of Phase-A activities, to start at the beginning of 2010.

An overview of the Post-EPS Phasing and planning is given in the following figure.

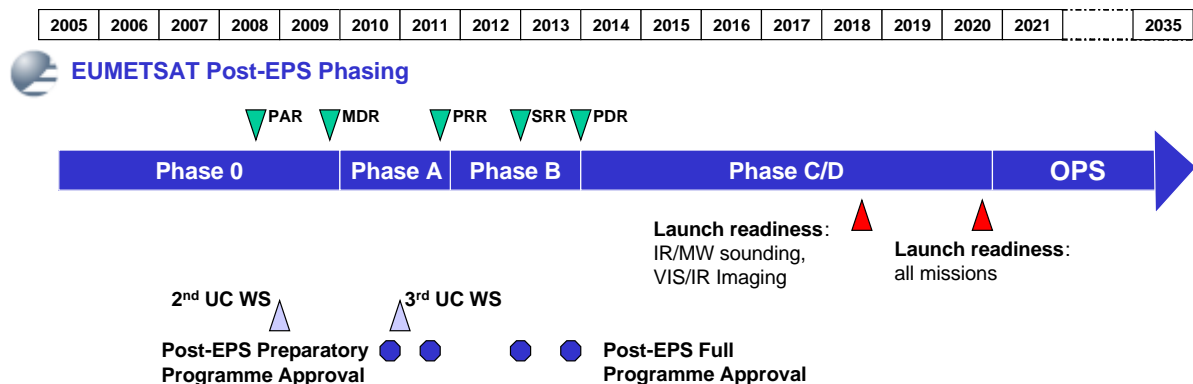


Figure 1 Post-EPS Phasing

A 3rd Post-EPS User Consultation Workshop is planned for the end of 2010.