

Status of EUMETSAT Satellite Application Facilities (SAFs) - Current Initiatives

This Paper presents the status of the EUMETSAT Network of Satellite Application facilities.

The SAF on support to Operational Hydrology and Water Management completed the development Phase in August 2010 and entered the Continuous Development and Operations Phase (until February 2012). All other SAFs are in their Continuous Development and Operations Phase (CDOP), and will soon complete the 4th year of related activities.

In the last period, the number of operational SAF products increased, especially for the products based on EPS data. Similarly, there was an increased availability of SAF off-line Products through the EUMETSAT Central Archive.

In 2010, the SAFs are all engaged in preparing proposals for a second slice of the CDOP, covering the period March 2012 to February 2017.

The SAF Network Support to the WMO SCOPE-CM initiative well progressed in line with the Plans for the approved Pilot Projects.

Action/Recommendation proposed:
CGMS to take note of the Status of the EUMETSAT SAF Network

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1 INTRODUCTION

Since CGMS-37, the EUMETSAT SAF Network has progressed well, in line with the CDOP plans for the 7 SAFs in continuous development and operations, and the SAF on support to Operational Hydrology and Water Management, which has completed its Development Phase and entered the CDOP on 1 September 2010.

The SAFs in CDOP continue the operational generation and dissemination of software and near-real-time products, as well as the generation and archiving of the off-line products, for all products that achieved their pre-operational or operational readiness. This includes an increasing number of products based on EPS data.

The following major achievements of the SAF Network are therefore particularly highlighted:

- Completion of the H-SAF Development Phase on 31 August 2010;
- Start of the H-SAF CDOP (September 2010 to February 2012) on 1 September 2010;
- Smooth operations of the SAFs in the Continuous Development and Operations Phase (CDOP);
- Increasing number of EPS based products released as “pre-operational” or “operational”, and distributed via EUMETCast;
- New products declared “operational” and “pre-operational”;
- Release of data sets of long-term time series (OSI SAF sea ice concentration, O3M SAF Total Ozone reprocessed);
- Start of operational assimilation of GRAS SAF NRT product at NCEP;
- Release of new software version packages (GRAS and NWP SAF);
- Preparation of SAF workshops, namely the CM SAF workshop planned in September 2010 in Rostock (D) and the Land SAF workshop planned in November 2010 in Toulouse (F)); in addition, the GRAS SAF organised a workshop (September 2010 in Graz) jointly conducted with OPAC-4 and IROWG-1 as International Workshop on Occultations for Probing Atmosphere and Climate);
- Publication of a number of peer-reviewed journal articles and communications on SAF development and the usage of the SAF products and services.

The SAF teams are currently in the preparing the CDOP-2 proposals, to be submitted to Delegate Bodies in spring 2011. The SAF teams already took actions to setup their planning and the proposals preparation process. The Secretariat continued the series of workshops with the SAFs started in May 2009 to support this process. A second Workshop took place in 3-4 December 2009 and a third workshop was conducted on 24-25 March 2010; a fourth workshop focused on SAF/CAF federated activities was held 1-2 June 2010 at DWD in Offenbach. A dedicated session with the SAF Leading entities on financial and management issues was as well held on 31 May 2010.

2 CONTINUOUS DEVELOPMENT AND OPERATIONS PHASE ACTIVITIES

2.1 SAF Network Phasing

The Continuous Development and Operations Phase (CDOP) addresses the continuation of the services implemented in the IOP and in the Development phase, but also focusses on the improvement of existing products and the development of new products and services.

Initially, CDOP dedicated effort was spent in harmonising the approaches and procedures within the SAF Network but also within the overall EUMETSAT Ground Segment. Dedicated meetings and workshops resulted in a convergence of SAFs and EUMETSAT Central Facilities in procedures and terminology. These developments lead to an increased visibility of SAF products and services as part of the EUMETSAT services in the scientific and user community as well as for a coherent monitoring, management and user support.

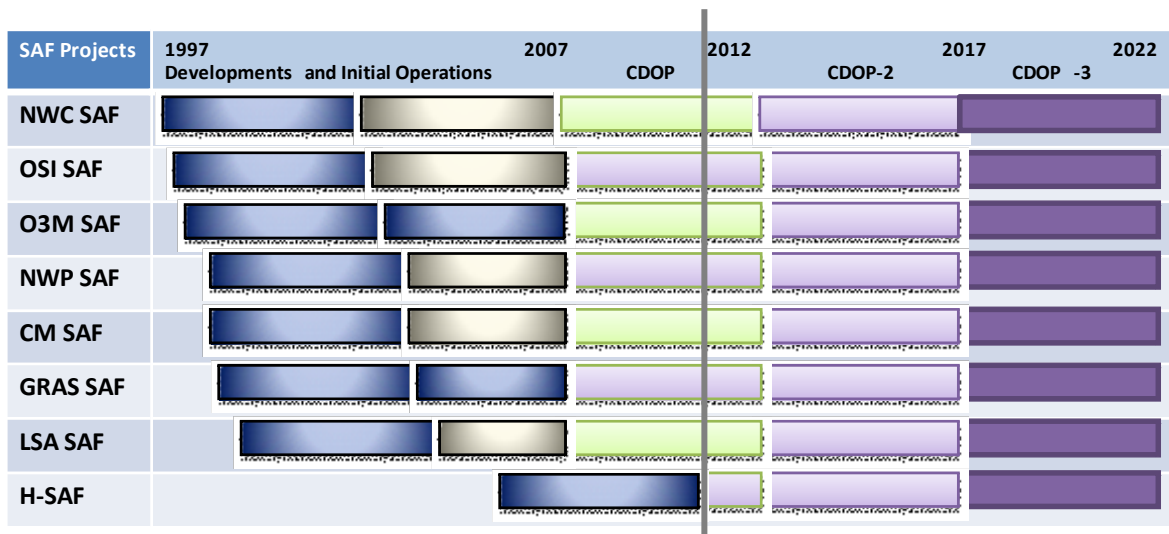


Figure 1 SAF Network Phasing and Planning: The approval of the MTG Programme provides the framework for CDOP-2 and CDOP-3 until 2022

2.2 Major Achievements

The following major achievements are highlighted:

- Preparation and conduction of 7 dedicated sessions in April and May 2010 with concerned SAFs and CAF for discussion agreements on shared/distributed responsibilities and activities;

- Preparation and conduction of a session with representatives of the SAF Leading Entities (SG chair and SAF Project Managers) on organisational, management and financial issues. Preparation of draft proposal templates and presentation of a draft CDOP-2 process model prepared by the Secretariat and to be consolidated with the SAFs by end of October 2010;

- Preparation and conduction of the 4th SAF Network Workshop on CDOP-2 preparation in June 2010;

- Good progress in the SAF – EUMETSAT Data Centre integration;

- Preparation and conduction of 8 SAF reviews from April 2010 to September 2010, with an increasing efficiency and effectiveness of the process;

Continuation of activities for the Working Group on high level MTG requirements for the SAFs with an extension of his mandate to include Post-EPS Requirements for Level 2 Products

Continuation of the activities for the EUMETSAT Working Group on Reprocessing Updated EUMETSAT SAF Brochure with new Design and latest information.

Concerning integration of SAF Metadata into the EUMETSAT Data Centre (formally UMARF), the Integration of the low resolution Sea Drift Product from OSI SAF in the EUMETSAT Data Centre was completed in June 2010.

2.3 WMO Sustained and Coordinated Processing of Environmental Satellite Data for Climate Monitoring (SCOPE-CM)

The WMO initiative for Sustained and Coordinated Processing of Environmental Satellite Data for SCOPE-CM (formerly named R/SSC-CM) was developing its structures and first activities in the reporting period. After the official invitation, the members of the Executive Panel were nominated (EUMETSAT is represented by Lorenzo Sarlo). In parallel, the participating organisations were invited to submit proposals for activities (pilot projects) covering the five areas of initial activities previously identified.

The Executive Panel held its first teleconference on 8 January 2009 to review the Terms of Reference for the Executive Panel, and to discuss the status of the pilot project proposals and next steps.

The first Executive Panel Meeting (SEP 01) took place 25-26 February 2009 in Geneva, and review the pilot project proposals that have been received to date, and approved all five proposals:

- Pilot Project 1** : AVHRR based data set of cloud and aerosol properties
(NOAA with EUMETSAT CM SAF);
- Pilot Project 2** : SSM/I: total column water vapour, precipitation, liquid water path (EUMETSAT CM SAF with NOAA);
- Pilot Project 3** : Surface albedo, clouds + aerosols from geostationary satellites (EUMETSAT Central Facilities with JMA and NOAA);
- Pilot Project 4** : Atmospheric Motion Vectors (AMV) + clear sky radiance
(JMA with EUMETSAT Central Facilities and NOAA);
- Pilot Project 5** : Upper troposphere humidity
(NOAA with JMA, EUMETSAT Central Facilities and CM SAF).

The Executive Panel decided on the new name of the initiative (SCOPE-CM) to better reflect the nature of the intended activities and products. EUMETSAT has been confirmed as the Secretariat of SCOPE-CM.

The most recent Executive Panel meeting was held 25-26 May 2010 at EUMETSAT, which focused among other things on the cooperation and interaction with the Global Satellite Inter-calibration System (GSICS) initiative. The next SCOPE-CM meeting is organised for 6-8 October 2010, which will include the Executive Panel as well as the Pilot Project teams, with the main objective to prepare the second phase of SCOPE-CM.

Starting with the spring 2011 round of delegate bodies meeting, the progress of the SCOPE-CM initiative and related EUMETSAT Activities will be reported in the frame of the Status Report on the EUMETSAT Climate Monitoring activities, in line with the approved Climate Monitoring Implementation Plan and its update; this would be a standard agenda item for the STG spring loop.

2.4 Preparation for the CDOP-2 (2012-2017)

The current SAF CDOP covers the period from March 2006 to February 2012, with a shorter duration for the H-SAF whose CDOP started in September 2010.

In 2008, Council noting the possible mandatory frameworks for funding SAF operations beyond February 2012 confirmed that SAF funding after CDOP will continue to be within the mandatory programme envelopes of EUMETSAT, starting with the MTG and then the Post-EPS Programmes. Additionally, Council tasked the Secretariat to provide by 2010, a detailed definition of the SAF Network objectives and constraints for CDOP-2 and CDOP-3, and an updated SAF Strategy document, to enable the preparation of SAF Proposals by Member States and Cooperating States. This was achieved in December 2009. The funding for the SAF CDOP-2 and CDOP-3 has been included in the MTG Programme envelope. For the CDOP-4 and CDOP-5, the related funding is included in the estimates of the EPS-SG Programme.

The CDOP-2 would cover the period from March 2012 to February 2017, and the SAF CDOP-2 proposals preparation in on-going by all SAFs with the objective to submit them to EUMETSAT by end of 2010, to enable their evaluation in early 2011 and their presentation to Delegate Bodies in the 2011 spring loop. This will allow to have a timely decision of EUMETSAT Council and to fix the budgetary elements for the CDOP-2 in the draft budget 2012, to be presented to Delegations in autumn 2011.

SAFs are informed of these plans and the Secretariat continued the conduction of a series of workshops to discuss with the SAFs representatives the content and articulation of the proposals for the CDOP-2.

3 CONCLUSION

CGMS is invited to take note of the Status of the EUMETSAT SAF Network.