

STATUS OF EUMETSAT UNIFIED ARCHIVE AND RETRIEVAL FACILITY (U-MARF)

This document presents the status of development of the first version of the Unified Archived and Retrieval Facility (U-MARF) in EUMETSAT, and the plans for the preparation of the next second version.

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1 INTRODUCTION

The objective of the U-MARF is to implement a unified, incremental EUMETSAT Meteorological Archiving and Retrieval Facility (U-MARF), and its related on-line User Services, for data from the Meteosat (MTP), Meteosat Second Generation (MSG) and EUMETSAT Polar System (EPS) missions. The U-MARF will be flexible enough to accommodate additional datasets, e.g. from Third Party missions.

The procurement approach agreed by the EUMETSAT Council in 1997 is a phased, incremental development consisting of two major versions as described in document CGMS-XXVII WP-25. The development of the first version (V1) of the U-MARF is phased with the MSG development programme, and will provide services related to METEOSAT and MSG data and products. With the second version of the U-MARF (V2), to be developed in parallel with the EPS programme, U-MARF services will be further extended to the EUMETSAT Polar System (EPS). These services will also support some connectivity with the Satellite Application Facilities (SAFs) that will form the distributed elements of the EUMETSAT Ground Segment.

The industrial development of the first V1 version was kicked-off in mid-December 1998, after EUMETSAT Council agreement, with a Consortium led by Matra Systèmes & Information (F) and including Advanced Computer Systems (I) as a major sub-contractor.

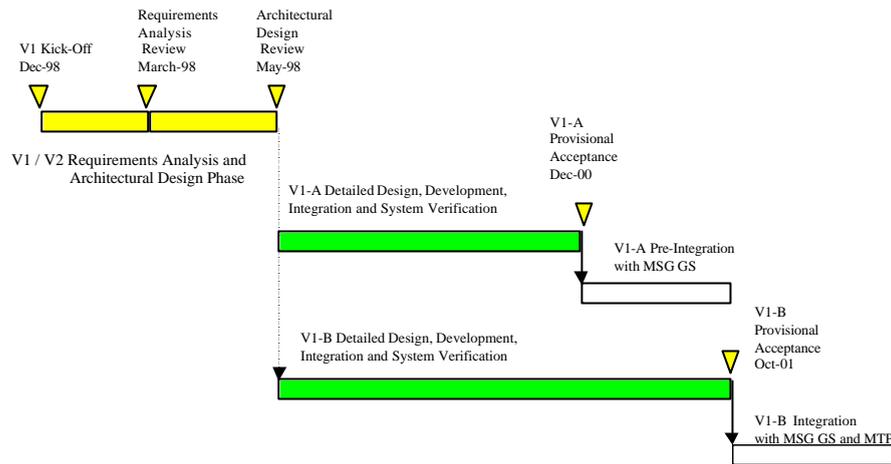
The preparation of the V2 development is in progress, with the objective to kick-off the industrial development by mid-December 2001 after EUMETSAT Council approval.

2 V1 DEVELOPMENT STATUS

The first V1 U-MARF version is being procured according to an incremental development logic. This development logic is depicted in the figure below.

After the completion of the Requirements Analysis and Architectural Design Phase (which were completed in May 1999), the V1 lifecycle consisted of:

- A Detailed Design, Development, Integration and Validation of the first version V1-A. This version concentrates on the kernel U-MARF functions: from MSG Ground Segment Ingestion, Archiving, Cataloguing, and Monitoring and Control functions, and encompasses the implementation of all MSG specific interfaces;
- A Detailed Design and Development, Integration and Validation of the V1-B version, that adds the web-based User Services, Product Formatting and Delivery functions and the MTP interface to the V1-A version.



The Provisional Acceptance of the V1-A version was performed in Mid-December 2000. Since then, this version has been pre-integrated with the facilities of the MSG Ground Segment.

The detailed design, production and integration of the V1-B version has also been completed. The system verification tests of the V1-B version, including the exhaustive regression testing of the V1-A functions, are planned for completion by end September 2001. The final Provisional Acceptance of the V1-B version is scheduled for November 2001.

This version will enable the completion of the integration and system verification process of the MSG Ground Segment. In addition, it will be integrated with the current MTP Ground Segment and the overall EUMETSAT External Information Services.

3 V2 PREPARATION STATUS

The development of the V2 version for EPS and the SAFs is a main option of the current contract with the U-MARF Consortium. This option may be exercised by EUMETSAT via a Conversion Proposal that aims at obtaining a Firm Fixed Price Contract for the V2 development.

The preparation of the Conversion Proposal has been in progress since the end of 2000, with the detailed definition of the EPS and SAF requirements on the U-MARF.

The process of consolidation of the U-MARF requirements applicable for the V2 development has been completed through the U-MARF V2 Requirements Specifications Review that was held in March 2001.

In answer to these detailed V2 requirements, the U-MARF Consortium is preparing an update of the U-MARF Architectural Design, together with the Conversion Proposal for the V2 development. An Updated Architectural Design Review is scheduled for September 2001, and the completion of the Conversion Proposal process is planned for EUMETSAT Council Approval by December 2001.

Following this approval, the V2 industrial development will be kicked-off in mid-December 2001.