

SPACE OPERATIONS SYMPOSIUM (B6)
Mission Operations, Validation, Simulation and Training (3)

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MULTI-MISSION ELEMENTS FOR EUMETSAT OPERATIONS

Abstract

The functions of the Multi Mission Systems are provided by a number of elements, such as a number of software tools and packages that are used commonly across different programs. These common software tools and packages provide an infrastructure layer and ensure a common approach for activities that are common across the Operational Ground Segments. Although built into the programme specific systems, these tools and packages are maintained as part of the Multi-Mission systems. In addition to the facilities and S/W packages that comprise the Multi Mission systems, there are often duplicated versions that allow the facilities to be used in different modes. These duplicated facilities are termed environments and each facility may provide one or more of the following environments: Operational (OPE), Validation (VAL), Development (DEV). The Multi Mission Systems consist of components which provide the functions that are common to more than one program – specifically in EUMETSAT: Archive and User Services, Dissemination, Monitoring and Infrastructure Multi-Mission elements bring several benefits to the company. As a first consequence, the development risks and costs are highly reduced: these elements have been well validated and their implementation clearly understood, improving also safety and reliability of the systems. When using common tools, methods and processes among different programs, maintenance costs and/or resource consumption costs are reduced. In a company where real-time operations and intervention in case of failures are of crucial importance, several teams are involved in on-call support, monitoring and reporting. The possibility of common tools used among different programs allow the possibility of sharing teams across operations. Also the development of a common tool rather than several tools means rapid development (one instead of several), and the training of the teams is also easier. Finally, in case of sickness or lack of Staff, people can be easily moved from one program to another with very low impact on operations. Multi-Mission as well means consistency towards end users, that now communicate with the company using a common interface to all services. The Multi-Mission System in EUMETSAT consists of the hardware, called MASIF (Monitoring And Support Infrastructure Facility), whose operational platform can be accessed online (www.masif.eumetsat.int), and the software, composed by the following elements: GEMS, SMART, SPRS, SMS, NAGIOS. Multi-Mission also means collaboration with external parties that provide support for the development of the tools and architecture, which is another important aspect of the company system evolution.