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FOREWORD

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The Meteosat Second Generation (MSG) series ensures the continuity of the Meteosat data and services, but also provides improved observations in terms of spectral coverage, radiometric accuracy and data repeat rate. This represents an opportunity for research in many domains of Earth Sciences, not previously addressed by Meteosat.

The MSG Research Announcement of Opportunity (RAO) provided a structured framework for demonstrating the value of the MSG mission to innovative research in various Earth Sciences disciplines and for investigating the potential implications for the evolution of the operational services. The European Space Agency (ESA) and the European Organization for the Exploitation of Meteorological satellites (EUMETSAT) announced this opportunity to the worldwide scientific community in September 1998. Candidate Principal Investigators (PIs) were encouraged to submit research proposals using data from the MSG satellite series on:

- Innovative scientific investigations in areas such as
 - hydrology and land surface processes
 - atmospheric research
 - oceanography
 - climate research
- Calibration of MSG data and validation of geophysical products
- Investigation of new algorithms, including demonstration of new experimental products and of their value for research.

There were in total 43 projects jointly selected by ESA and EUMETSAT in November 1999, following a peer evaluation process initiated in February of the same year. Five of such projects were withdrawn, mainly for lack of resources.

The topics addressed in the investigations cover most of the foreseen RAO objectives, many going beyond, particularly for what refers to environmental issues.

Considering their leading role in MSG-relevant research, the selected PIs and their Co-Investigators (Co-Is) had access to required real-time and archived MSG data and products, even during the commissioning. Such data were provided by EUMETSAT, whilst ESA delivered necessary complementary data from ESA Earth Observation satellites, also free of charge.

The first MSG PI Workshop organised in Bologna, Italy, 17-19 May 2000, started this dialogue between the Investigators and the ESA and EUMETSAT relevant staff. A key objective was to deliver the latest information on the MSG mission objectives, capabilities and plans in order to enable all investigators to optimize their own investigation plans. A second objective was to have an overview and initial discussion of the planned investigations, including the associated needs for EUMETSAT (Meteosat, MSG) and ESA data (ERS & Envisat). A number of recommendations were formulated, as for instance to increase the delivery capabilities of the U-MARF, and were taken into account by ESA and EUMETSAT. The proceedings were published by ESA (SP-452).

The second MSG RAO Workshop (9-10 October 2004, Salzburg, Austria) was the first opportunity for ESA and EUMETSAT to present the status of the mission after its successful launch in 2002 and for the PIs to present the first results since the start of routine operations in early 2004. The proceedings were published by ESA (SP-582)

The third and final Workshop (15 June 2006, Helsinki, Finland) was the occasion for the scientists to provide tangible results about their investigations, after having had access to MSG-1 data for over two years. Being organised in parallel with the EUMETSAT Conference , it was also a good occasion for them to meet with the EUMETSAT user community at large.

Attendees to the Workshop were informed about the successful MSG-2 launch in December 2005 and about the final stages of its commissioning. Thus, it was assured the continuity of the MSG data stream, which was a key issue for keeping their interest in follow-on investigations with the MSG data. Also, those who had reached a mature stage of new applications, would be able to put them into operations.

ESA and EUMETSAT thanked those PIs and co-Is who managed to carry forward their investigations, in spite of the launch delay announced six years earlier, and encouraged them to keep using ESA and EUMETSAT data for their future research.

We hope these proceedings provide a comprehensive overview of the presentations and discussions held during the Workshop, and take this opportunity for thanking all participants for their active and stimulating contributions.

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ADDITIONAL MATERIAL – CONFERENCE PHOTOS (CD ONLY)