

PREPARATION FOR THE USE OF MSG IN AFRICA (PUMA) – STATUS OF PROJECT

The PUMA project is an initiative of the PUMA Task Team made up of representatives of Africa's Regional Intergovernmental Organisations (IGAD, ECOWAS, SADC, IOC and CEMAC) and 53 African National Meteorological Services, as well as WMO and EUMETSAT. The objective of the PUMA Task Team project is to follow-up the strategy of preparation for the transition from MTP to MSG for the African user community and support the resource mobilisation efforts necessary to fund the replacement of ground receiving and processing equipment for the use of MSG in Africa.

This paper describes the developments of the PUMA programme that has just entered into its implementation phase in September 2001 and will run for four years.

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1 INTRODUCTION

The PUMA Task Team (**P**reparation to the **U**se of **M**eteosat **S**econd **G**eneration in **A**frica) was created in December 1996, following a recommendation from the Second EUMETSAT User Forum in Africa in Harare, Zimbabwe, in December 1996. It includes representatives from Africa's Regional Intergovernmental Organisations (ECOWAS, CEMAC, IOC, SADC and IGAD) and African National Meteorological Services (NMSs), as well as WMO and ACMAD and EUMETSAT acting as Secretariat.

The PUMA Task Team's objectives are to follow up the strategy of preparation for the transition from MTP to MSG for the African user community and support the resource mobilisation efforts necessary to fund the replacement of ground receiving and processing equipment for the use of MSG in Africa.

This paper describes the development of the PUMA project to date in its efforts to prepare the African user community for the transition from MTP to MSG.

2 DEVELOPMENTS OF PUMA PROJECT

In the first meeting of the PUMA Task Team in December 1996 an action plan was drafted. It was clear that the African National Meteorological Services would have to lead in formulating the PUMA project. Initiatives were taken to raise awareness among the user community of the need to prepare the transition from MTP to MSG.

Project profiles for all the sub-regions in Africa were drawn up with input from the National Meteorological Services in WMO Regional Association I (Africa) and the regional intergovernmental organisations. These project profiles described the requirements for meteorological satellite data in the regions. They were presented to potential donors including the European Commission, World Bank, UNDP etc.

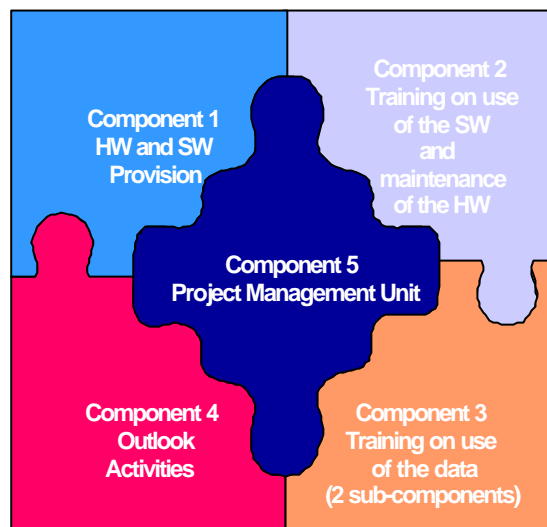
At the end of 1999 the European Commission agreed "in principle" to fund the PUMA project. Following this statement an appraisal study was made including a Financial Proposal. On 22 November 2000 the European Development Fund Committee agreed to finance the project out of the European Development Fund (EDF). On 12 February 2001 the European Commission officially notified the PUMA Task Team that the funding of the 11.8 million Euro project out of the EDF was approved.

As the EDF funding excludes the countries Algeria, Egypt, Libya, Morocco, Tunisia and South Africa, with these countries not being signatories of the Lomé Convention, a Trust Fund has

been set up within the WMO framework to mobilise resources. This Trust Fund will enable the countries concerned to participate in the project. The equipment for these countries will be acquired through nationally arranged budgets, through the Trust Fund or direct contact with manufacturers. The Met Office (UK) has already significantly contributed to the Trust Fund. Thanks to the Trust Fund, the PUMA project covers the whole African continent.

3 COMPONENTS OF THE PUMA PROJECT

The PUMA Project consists of five components. Two are related to the supply of equipment with the related technical training. One will provide user-oriented training. One is looking towards the development of new applications using of MSG data. The last component concerns the project management.



3.1 Component 1: Hardware and Software Provision

Component 1 covers the provision of one combined HRIT/LRIT receiving station in each NMHS concerned by the project (53 African countries). It also includes the installation of one HRIT receiving station in 5 selected regional centres. The HRIT/LRIT station will include the necessary antenna, MSG User Station Baseband Module (MBUM), PC's, LAN connection, backup facilities...

In addition to the hardware, the manufacturers will have to provide software enabling the data handling and the basic data manipulation. It is not intended within the project to provide software for data processing, but the basic software provided by the manufacturers would have to be designed in a way enabling their compatibility with future developed processing applications.

In September 2001, the Tender dossier for the procurement of MSG receiving stations has been finalised, and it is planned to release it in the Official Journal of the European Communities in early October 2001.

3.2 Component 2: Training on the use of software and maintenance of hardware

Component 2 is part of the ITT for the supply of hardware and software. It is limited to **technical** training and will be delivered by the receiving station manufacturer(s). The purpose of this training is to build competencies within African NMHS on how to use and maintain the equipment and software. It is not known yet how and where this training component will be implemented, as it is one of the important criteria to be evaluated in the manufacturers' proposals. A clear implementation scheme for this component will be known at the time of signing the contract(s) with industry (expected in early 2002).

3.3 Component 3: Training on the use of MSG data

The training component is essential in order to achieve the sustainability of the project. After careful consideration of the purpose, content and tools of the training module, it was decided to distinguish two training sub-components:

- Basic training,
- Complementary training.

The basic training sub-component is clearly identifiable as from now. Its purpose is to enable the African NMHS to maintain continuity of the services currently offered. This sub-component will mainly be a support and a strengthening of existing initiatives in the field of training (WMO and EUMETSAT training plans, ASMET project...). As a consequence, this sub-component will be undertaken through the two designated WMO Regional Meteorological Training Centres (RMTC's) in Niamey (EAMAC) and Nairobi (IMTR). Both conventional training and computer-aided learning-CAL would be dispensed and a balance between the two ensured.

The complementary training sub-component will be implemented on the basis of the needs of the Project Management Unit (PMU – see component 5). The purpose of this sub-component is to organise additional demand-driven training events on advanced applications making use of MSG data or on any items that would contribute to the success of the project.

3.4 Component 4: Outlook activities

Component 4 should lay the ground for NMHS in Africa to develop proactive partnerships with end-users, e.g. technical government departments, private companies, NGO's using weather information. With the data supplied by the new satellite, several times more than the current generation of Meteosat satellites, the building of new partnerships becomes more important for maximum use. The project's team agreed that the outlook component would be administered on the basis of project proposals submitted by eligible organisations with clearly defined priority areas. These priority areas would cover:

- (i) *Content*: new software for use with the current and future satellite data, value-added products; including dissemination and training components- see component 3;
- (ii) *Process*: new partnership formula between the NMHS and end-users;

- (iii) *Institutional*: the evolving role of NMHS in a changing world, where autonomy from government proper, cost-recovery, partnerships with end-users, etc, are becoming the norm.

3.5 Component 5: Project Management Unit (PMU)

Considering that not a single technical organisation had expertise in all project components, a Project Management Unit (PMU) has been set up in September 2001. The PMU will implement the project on behalf of the final beneficiaries. The PMU consists of a Project Manager, a Training and Outlook Activities expert and an Antenna expert. A local accountant and a secretary will support them. The PMU will get logistic support from the Kenya Meteorological Department where they will set up their office in October 2001. The PMU will create and run a web-site, that will become a key communication tool with the NMHS and the user community interested in the project. Through “work programmes” submitted for approval to the Project Steering Committee (see 2.1.6) the PMU will manage the procurement and installation of the receiving stations, user training and outlook activities in all African countries and five regional/sub-regional centres over four years.

4 PROJECT MANAGEMENT

The difficulty in this project arises from the fact that five beneficiary inter-governmental regional organisations made the request (ECOWAS, CEMAC, IGAD, SADC, IOC) to cover up to 53 National Meteorological Services and regional centres that will benefit from the project.

It was therefore necessary for the five regional organisations to agree on **one** organisation, designated to handle the project on their behalf. The inter-governmental regional organisations have decided, and confirmed in writing to the EC, to delegate their authority and signature to one common “Delegated Regional Authorising Officer” (DRAO). This DRAO is the Government of Kenya, represented by the Director of the Kenyan Meteorological Department (KMD). The choice of Kenya as DRAO was based on a set of objective criteria proposed by the European Commission. The lifetime of this structure is strictly limited to the duration of the project.

Furthermore, a Project Steering Committee (PSC) has been created for the duration of the project, comprising the various inter-governmental regional organisations and NMHS representatives, EC, EUMETSAT and WMO. EUMETSAT is acting as Secretariat of this PSC. The role of the PSC is to review and approve the main components of the project, and, in particular, to review and approve the work programmes submitted by the PMU.

5 CONCLUSION

CGMS members are invited to take note of the PUMA Project as one example of resource mobilisation for the use of meteorological satellite data in developing country user communities.