

REPORT ON EUMETSAT TRAINING ACTIVITIES

This document reports on training activities carried out by EUMETSAT over the last year and provides an outline plan of training activities for the coming years.

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1 INTRODUCTION

CGMS will recall that whilst the EUMETSAT training plan focuses on training activities in the EUMETSAT Member States, in 1995 the Council approved an extension of training activities to enhance the use of Meteosat data and services by NMS in developing countries in Africa through the sponsorship of training activities at the two WMO Regional Meteorological Training Centres (RMTC) located in Nairobi and Niamey. A further extension, resulting in increased co-operation with certain NMS of Central and East European countries, was agreed by the Council in 1996. In November 1998, the Council agreed to the principle of continuing user training activities for a further period of five years, additionally recommending a closer relationship with Iberoamerican countries in the area of education and training, and with NOAA for the possible joint development of training material, which would assist NMS in exploiting data and products from the future Metop and NOAA polar orbiting satellites.

This document briefly describes training activities carried out over the last twelve months and presents an outline plan of activities for the coming years.

2 EUROPEAN TRAINING ACTIVITIES

2.1 Use of SAF products

In December 1998 a training workshop on Nowcasting and Very Short Range Forecasting (VSRF), hosted by the Spanish Meteorological Service, took place in Madrid. The workshop brought together experts from Europe and the USA. Sessions focused on MSG systems, data requirements and derived products, especially those required for Nowcasting and VSRF applications. The work of the Nowcasting SAF consortium was also presented and there was an active discussion on the means to ensure the effective and timely use of future Nowcasting and VSRF products by the user community.

A similar training workshop addressing the activities of the Ocean and Sea Ice SAF, hosted by Météo France, will take place in Lannion, NW France, from 30 November to 2 December 1999. It is expected that SAF related training workshops will continue to be held annually.

2.2 MSG/EPS Courses

The primary objectives of the MSG/EPS training courses is to prepare the meteorological user community for the data and products, which will be provided by the new generation of MSG and EPS satellites. Great emphasis is being placed on this type of training course in the coming years. Around 5 courses are held in Europe and two in Africa every year. The programmes of these courses are designed to encourage NMS to fully exploit the data, leading to the development of data applications with high socio-economic benefit, especially for the developing countries.

2.3 Other Training Support Activities

2.3.1 Sponsored Attendance at Training Courses

From time to time support is offered to cover the travel costs of selected staff from Member State Meteorological Services, from other States that have special agreements with EUMETSAT, and from the two sponsored African WMO RMTC, to allow them to participate in specific training events and courses offered by other Member State training institutes.

2.3.2 Placement of Graduate Meteorologist Trainees

In September 1998 two meteorologists, one from Portugal, the other from Turkey, completed a 9 months Graduate Training programme in EUMETSAT HQ. The jointly agreed research projects carried out by these trainees were designed to benefit both the home NMS and EUMETSAT. Similar placements will continue to be offered in the coming years, either in EUMETSAT HQ or directly in the Member State NMS.

2.3.3 Annual EUMETSAT Meteorological Satellite Data User Conferences

The EUMETSAT training scheme also encourages the participation of young scientists from all Member State Meteorological Services in the Annual EUMETSAT Meteorological Satellite Data User Conference programme and when appropriate supports it financially. The most recent Conference in this series was held in Copenhagen, hosted by the Danish Meteorological Institute, from 6 – 10 September 1999. The next Conference is scheduled to take place in Bologna, Italy from 29 May – 2 June 2000.

2.3.4 CAL Development

2.3.4.1 EuroMET

Delivery of the EuroMET CAL modules was completed by the end of 1997 and their evaluation continued into 1998. During this evaluation, which was co-ordinated by EUMETSAT, the CAL modules were tested in various Member State meteorological and university training institutes to see, in particular, how effective they were at partially replacing more traditional teaching methods. The project finally came to an end in November 1998 with the funding by the EU being stopped. The main partners are now looking at ways to continue this project.

2.3.4.2 SATREP CAL Development

Several CAL modules have been developed describing meteorological conceptual models and based on the combination of satellite imagery with parameters derived from numerical models. The modules are actively used by operational weather forecasters in several European meteorological services and were developed through a co-operative project between the Austrian, Dutch and Finnish meteorological services and EUMETSAT. The information includes detailed descriptions of case studies of specific regional weather events. This material is particularly

useful for providing “hands-on” experience during training workshops.

2.3.4.3 ASMET CAL Development

The production of the first ASMET CAL modules involved the adaptation of CAL modules originally based on the use of GOES image data and produced by COMET, Boulder, USA. The revised CAL modules, which are distributed via cd-rom, make extensive use of pre-selected archived Meteosat imagery and focus on the forecasting requirements of African NMS. Within the ASMET programme, four fellows completed their training courses in COMET in 1998. Two fellows were from the NMS of Kenya and another two fellows were from the NMS of Niger. They were jointly sponsored by GTZ (Germany) and EUMETSAT, with administrative support provided by WMO. The knowledge gained by these meteorologists in this project has been taken back to the RMTCs where a further training CAL module, addressing several African weather phenomena, and specifically combining satellite data with output from numerical models, is currently in preparation in a third phase of the project.

3 FUTURE TRAINING ACTIVITIES

The EUMETSAT Council agreed that the following key user training activities should be carried out over the coming years:

- i) on-site MSG/EPS training courses to assist in the transition of NMS users of data and products from the current Meteosat satellite system to the EUMETSAT future programme satellites,
- ii) courses together with the SAFs, providing information to NMS and other user groups, which will assist them with the development of satellite data applications based upon SAF products,
- iii) continuation of the encouragement and financial support towards CAL development activities such as ASMET and SATREP or similar follow-on projects,
- iv) organisation of graduate trainee fellowships at EUMETSAT HQ and suitable training establishments in the Member States,
- v) support for training activities resulting in sustainable CAL in Africa,
- vi) in co-operation with NOAA, studying the possibility for the joint production of satellite meteorology training material, with particular reference to data from the Metop and NOAA satellite systems.