REPORT FROM CLOUD WORKSHOP 17-19 MAY 2006, NORRKÖPING, SWEDEN
AND GENERAL THOUGHTS ON CLOUD PRODUCTS FOR NOWCASTING

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Extended Abstract

A cloud parameter retrieval workshop was held 17-19 May 2006 with participation of most European institutions running cloud parameter retrieval schemes operationally, including schemes of EUMETSAT central facilities and different SAF. The workshop was the first European workshop of its kind and gave an overview of schemes available and their applications, as well as giving detailed insight in the respective algorithm designs. Integral part of the workshop was the discussion of results of an algorithm inter-comparison campaign, where results of twelve different MSG cloud algorithms were inter-compared for one day of data, 17 January 2006. The intercomparison concentrated on parameters most easily to be intercompared, as cloud mask, cloud top temperature and pressure, optical thickness and effective radius. Three working groups were formed for detailed discussion of intercomparison results according to parameter groups. While results of cloud mask intercomparison showed differing results mainly for known problem areas, the inter-comparison of cloud top temperature/pressure and cloud microphysics showed partly good agreement, but also gave some interesting insights to the algorithm developers which need to be followed up to improve algorithms further. Main workshops recommendations were:

• The WG’s felt that the workshop and intercomparison was very useful and would like to continue to meet at about two yearly intervals provided that future validation campaigns will be carried out.

• The group would welcome an effort of EUMETSAT to coordinate validation and intercomparisons of MPEF and SAF cloud products in the future, even with possibility of other operational algorithms to participate. A dedicated effort to validate cloud products against CloudNet data and/or CloudSat-CALIPSO data would benefit algorithm development greatly.

The workshop was sponsored by Eumetsat and the intercomparison performed in the frame of a visiting scientist activity of the Nowcasting SAF.

The second part of the paper addresses the specific requirements on cloud products for Nowcasting. A variety of cloud products is available, ranging from images over RGB colour composites, highlighting specific phenomena, to cloud type and height classifications and more specialised products. Cloud products are both used as input to Nowcasting models and for direct use by forecasters. To ensure an efficient use of any cloud product by forecasters, it is necessary to provide a good visualisation embedded in the forecasting environment used, and to give sufficient training in the characteristics of the products and their use. To achieve this, good communication between developers of cloud products, designers of the visualisation tools/meteorological workstations and endusers has to be ensured.