

**VERification, Calibration and Assessment of Predictability of medium-range climate
predictions using satellite data**

(VECAP)

**A contribution to the BMBF MIKLIP programme
(Module E: Validation)**

Marc Schröder, Frank Kaspar, Rainer Hollmann, Deutscher Wetterdienst (DWD), Frankfurter
Str. 135, D-63067 Offenbach am Main

in cooperation with

Andreas Hense, Meteorologisches Institut, Universität Bonn, Auf dem Hügel 20, 53121 Bonn

Project Summary

The objective of the overall BMBF-MiKlip research programme is to develop a model system for forecasting the expected climate changes and its related extreme weather phenomena on a time scale of up to ten years with consideration of both, anthropogenically induced changes and natural climate variation. In technical terms, methods of seasonal forecasting must be combined with climate projection methods

(see <http://www.bmbf.de/en/furtherance/13594.php>).

One focus of the research programme is the comprehensive and coordinated validation in order to enable the quantification of model uncertainties, the reliable evaluation of the forecasts and a direct comparison between the results of different simulations.

In this contribution to the MiKlip project we will implement an Observation Simulator Package (COSP) into the MiKlip global modeling system (based on ECHAM6) in order to provide an advanced tool for the validation of the prediction system based on original satellite radiance observations. Additional components for the package will be developed, that will provide simulated reflectivities of the TRMM precipitation radar ("TRMM-PR"; Tropical Rainfall Measuring Mission) and the outgoing longwave spectrum as observed by the IASI instrument (Infrared Atmospheric Sounding Interferometer).