

Zentralanstalt für Meteorologie und Geodynamik



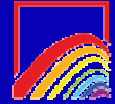
The ESA Project VAST – Monitoring and modelling of volcanic ash in the atmosphere, operational demonstration services

Gerhard Wotawa and Delia Arnold

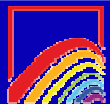
ZAMG/DMM

gerhard.wotawa@zamg.ac.at

Presented at WEZART Workshop, 31 May 2012, Geneva



- Motivation
- Project information
- Objectives
- Work Packages
- Operational demonstration services

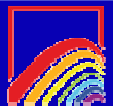


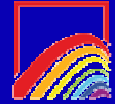


Main motivation of the VAST project is to develop, document and test improved data and modelling services for aviation after volcanic eruptions

The VAST project will

- Follow up on the recommendations provided by the European Volcanic Ash Cloud Experts Group (EVACEG) and the ESA-EUMETSAT workshop on the 14 April to 23 May 2010 eruption at the Eyjafjallajökull volcano
- Take into account and support the international processes, procedures and responsibilities, for example in the framework of the International Airways Volcano Watch (IAVW) program





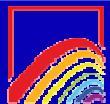
Volcanic Ash Strategic-initiative Team (VAST)

Funded by: **ESA** (Strategic Initiative)

Start: Mai 2012, Duration: 36 Months

Partners

- Norwegian Institute for Air Research (**NILU**), Norway
- Finnish Meteorological Institute (**FMI**), Finland
- National University in Galway (**NUIG**), Ireland
- Zentralanstalt für Meteorologie und Geodynamik (**ZAMG**), Austria
- S&T Corp AS (**S&T**), Norway



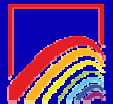


- To identify user requirements for products needed in the case of volcanic eruptions
- To investigate satellite retrievals for volcanic ash
- To evaluate and improve ash dispersion models
- To integrate Earth Observation Data and Models
- To develop and introduce a volcanic ash prediction system
- To create demonstration services for users and modellers
- To provide training regarding VAST services and modelling





- WP1000: Management and Coordination (NILU)
- WP2000: User Requirements (S&T)
- WP3000: Collaborative Interface Tools (NILU)
- WP4000: Investigation of satellite retrievals for volcanic ash and SO₂ (NILU)
- WP5000: Geophysical Validation (NUIG)
- WP6000: Modelling activities (NILU)
- WP7000: Operational implementation and improvement (ZAMG)





The following demonstration services are planned:

- Operational EO data and product retrieval
- Operational Modeling, including ensemble predictions
- Operational ash source term service (inverse modelling)
- Exercises

A cooperation with the VAACs and National Weather Services is aimed at (ensemble predictions, source term)

