Volcanic Ash Product (VAP)

PROGRAM/PROJECT: Satellite Meteorology and Climatology Division (SMCD), [http://orbit-net.nesdis.noaa.gov/arad/aradproj.html]
LEAD AGENCY: National Oceanic and Atmospheric Administration (NOAA), National Environmental Satellite, Data, and Information Service (NESDIS)
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SERVICE AREA (S)/INITIATIVE (S)

- ***National Aviation Weather Initiatives:***
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FUNDING

- ***Programmed/Planned ($'s/FY):*** $39K /FY 04 TBD /FY 05

TYPE OF PROGRAM/APPLICATION

- R&D/Product Development

SCOPE OF PROGRAM/PROJECT

- ***What's being developed, procured, etc.:*** *A GOES image product depicting airborne volcanic ash using multi-band IR techniques. Large scale composite images for eventual use in AWIPS.*
- ***How will operations be changed/improved:*** Optimal volcanic ash detection from GOES will provide satellite analysts with a better tool for tracking ash clouds than single band IR data, thus leading to better warnings and short range forecasts to en route aircraft.

PROGRAM/PROJECT MANAGEMENT

- ***Basic guidance document for this program:*** GOES Improved Measurement Product Assurance Plan (GIMPAP). Office of Research and Applications (ORA) Research Project Plan.
- ***Program/Project verification process:*** GIMPAP & NWS Aviation project reviews.
- ***Method used for end product validation:*** Comparison with reports from aircraft or volcanic observatories, or non-GOES satellite data (AVHRR, MODIS, TOMS, etc).
- ***Operational training for the user:*** Periodic workshops sponsored by NWS, Michigan Tech. University, Volcanic Ash Advisory Centers (VAAC), COMET, NWA, and AMS. Distance learning modules.

SCHEDULE/IMPLEMENTATION

- ***Next major program milestone:*** Demonstration of a GOES multi-spectral product for AWIPS (late FY04).
- ***Program becomes operational:*** TBD. Dependant on AWIPS Build schedules.
- ***Plans for further improvements:*** Refinement of new GOES-12+ technique using IR bands at 3.9, 11, and 13.3 micrometers. Minimize the diurnal effects due to reflectance at 3.9 micrometers.