

## Present status

Collaborative partners: ENS, BRGM, DICEA (Sapienza, Roma), EO-INGV, IGN

Test site: Mount Etna

Pleiades dataset: 2013 2 stereo pairs in 2013 (16/04, 12/05)  
2015 tri-stereo (scheduled acquisition)

Ancillary datasets: 2005-2007 DEM&orthophoto (DLR-EO\_INGV)  
2012 WorldView DEM&orthophoto(EO\_INGV-DICEA)

User community: MEDSUV, AIV

Products: DEM&orthophoto

Publications  
Dissertation Degree in Civil Engineering (Michele Martino)  
Extended abstract submitted at the IEEE conference, Roma, June  
2015  
Paper at International Workshop on Volcanic Rocks & -  
Soils, Ischia, September 2015 (to be submitted)

## Future activities

- Set up of a web-site/archive drive for data repository containing raw data and value-added products (maps and ancillary data)
- The web-site/archive drive will be organized by CNES-CNRS-ENS, probably through the project FORMATER.
- It will be prepared for the ETNA test site with the aim to expand it to other volcanic sites identified through the WOVO community (research center, Observatories, etc).
- The SVOP project will be extended to new sites for which additional Pleiades acquisition will be required to CNES (among the quota devoted to research that is presently underutilized)
- The additional sites will be added only in case of availability of in-situ data for georeferencing and validate the Pleiades products (
- The Raw data will be shared with an accredited user community
- The products will be available to a scientific user-community

### Ancillary data

- Reference DEM&orthophoto
- Ground Control Points (GCP) GPS dataset (monograph including sketch of location and mapping coordinates)
- Check Points (CP) and kinematic profiles GPS dataset

### Mapping Products

- DEM grid 10x10m obtained using and unsupervised procedure and masked on critical areas
- Orthophoto having a GDS of 1-5 m extracted using the most accurate and updated Reference DEM (if Pleiades DEM don not cover the entire area)

### Quality/Validation data

- DEM Residual maps (vertical accuracy estimated on stable areas)
- 3D residuals on coordinates of GPS check points
- Vertical residuals of GPS kinematic profiles

