



## Volcanic unrest in Europe and Latin America: Phenomenology, eruption precursors, hazard forecast, and risk mitigation



Photo: US Geological Survey

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### VUELCO Conference 7 and 8 March 2013



VUELCO held a two day conference in Barcelona on 7 and 8 March. Denis Peter, VUELCO's Project Officer at the European Commission in Brussels was in attendance, as well as the external advisory group member, Gordon Woo. Team members, including PhD students and academics presented their project research to date.

The event provided an excellent networking opportunity enabling the VUELCO members to plan and coordinate future integration activities. The abstract book and programme are available on the VUELCO website.

### VUELCO Steering Group and DET Committee 6 March 2013

On 6 March the VUELCO Steering Group and DET Committee met in Barcelona to review project progress to date and hear a report and presentation from each work package



leader. Plans were made for the next simulation exercise to be held in Italy in February 2014 and for the next workshop which is set for November 2013 in Sicily. There were discussions about the close of the first reporting period of the project and discussion about the development of the website, which now features video interviews with members of the VUELCO team.

### VUELCO Simulation Exercise, Colima, Mexico

The VUELCO project co-organised and participated in an unrest simulation exercise during the Cities on Volcanoes 7 conference in Colima, Mexico.



The simulation was based on an unrest scenario for the Fuego de Colima volcano and included five scientific committee meetings between November 17 and 23 during which the presented volcanic unrest data was discussed and evaluated. The exercise included the probabilistic assessment of different volcanic scenarios which were defined based on the available data to the committee,

which then formed part of the decision-making process of participating civil protection authorities of the states of Colima and Jalisco.

Start: October 1, 2011  
Duration: 48 months

#### European Partners:

University of Bristol (UK)  
(Coordinator)  
University of Leeds (UK)  
University of Munich (D)  
CSIC (Spain)  
INGV (Italy)  
DPC (Italy)  
CNRS (France)

#### Overseas Partners:

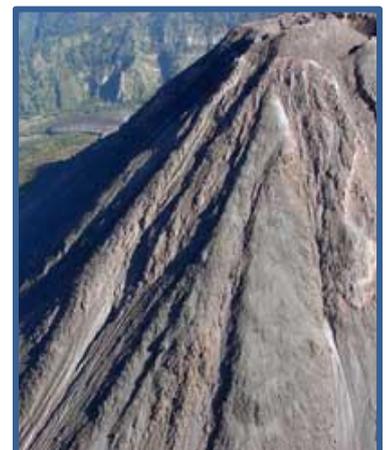
Geophysical Institute (Ecuador)  
UNAM (Mexico)  
University of the West Indies  
(UWI)

#### VUELCO WEBSITE

[www.vuelco.net](http://www.vuelco.net)  

See website to follow us on  
Facebook and Twitter

#### Images of Colima Volcano in November 2012



Based on the scientific advice given to the authorities after a marked increase of the simulated volcanic activity and the probabilistic scenario forecasts for the next day (Nov. 24), the evacuation of the village of La Becerrera at the foothills of Fuego de Colima was ordered by the authorities for the following morning.



The event was held under the World Congress on Cities on Volcanoes 7. Further details on the simulation as well as participating organisations and project partners can be found in the exercise planning document on the VUELCO website.

### First VUELCO Workshop: Volcanic Unrest: Interfacing science and Decision-Making

On Sunday 18 November 2012, the VUELCO project held its first workshop in Colima, Mexico. The programme is on our website.



The purpose of the workshop was to sample and discuss the state-of-the-art and future challenges of volcanic unrest research by an amalgamation of contributions from the natural and social

sciences and from non-scientific stakeholders.

VUELCO's aim was to bring together natural and social scientists, decision makers and policy makers to discuss issues relevant to the scientific, risk and managerial aspects of volcanic unrest. Contributions from cross-boundary research across the disciplines relevant for the study of volcanic unrest and its management were particularly welcome.



The workshop was sponsored by the European Commission under the 7th framework programme for research and technological development via the "VUELCO" project.

### VUELCO Steering Group, DET & Advisory Board Meeting

The VUELCO Steering Group, DET & Advisory Board met together on 22 April 2012 in Vienna. Delegates came from around the world including Ecuador, Italy, Mexico, Singapore, Spain and the West Indies.



The meeting consisted of reports from delegates on work package progress. There were discussions about the format of forthcoming meetings and workshops including the simulation workshop in Colima, Mexico (18 and 24 November 2012)

and how the milestones and deliverables would be met on schedule. Business ended over dinner.



### Barcelona Conference 2013



## WP8 Meeting 2/3 May 2012, CISC, Barcelona



Members of Work Package 8 met together at the Institut de Ciències de la Terra Jaume Almera (CISC) in Barcelona on 2 and 3 May 2012. The purpose of the meeting was to establish protocols for the clear communication of scientific information to decision makers, scientists, technicians, Civil Protection Agencies and the media.



### THE SIX TARGET VOLCANOES

The VUELCO project will be conducting research on the following volcanoes:

- Campi Flegrei, Italy
- Cotopaxi, Ecuador
- Morne aux Diabes, Dominica
- Popocatépetl, Mexico
- Soufrière Hills, Montserrat
- Teide, Tenerife

Further details of each volcano can be seen at [www.vuelco.net](http://www.vuelco.net)

### ABOUT VUELCO

VUELCO is an international multi-disciplinary consortium, combining fundamental research into causes and effects of volcanic unrest with uncertainty assessment and probabilistic forecasting to improve communication, decision-making and management during volcanic unrest. The primary project objective is to significantly improve our understanding of the processes behind volcanic unrest and the ability to forecast its outcome aiding decision-making and management in an unrest situation. See [www.vuelco.net](http://www.vuelco.net) for further details.

### FUNDING

The VUELCO project is funded by a €3.5 million grant by the EC.



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