



Cities on Volcanoes 9

November 20-25, 2016

Puerto Varas, Chile

'Understanding volcanoes and society: the key for risk mitigation'



Geological and Mining National Survey-SERNAGEOMIN

MAIN TOPIC

The Cities and Volcanoes Commission of IAVCEI aims to provide a link between the volcanology community and emergency managers, to serve as a conduit for exchange of ideas and experience among people living and working in 'cities on volcanoes', and promote multi-disciplinary applied research, involving the collaboration of physical and social scientists and city officials.

INVITATION TO PARTICIPATE

The hosting Chilean volcanology community invites the international scientific community and authorities that are involved in managing risks and hazards in volcanically active areas to participate in the Cities on Volcanoes 9 Conference to be held in Puerto Varas, Chile, from November 20th until November 25th, 2016, spring season in the Southern Hemisphere. The slogan and main focus of the meeting will be *'Understanding volcanoes and society: the key for risk mitigation'*. Several symposia are being arranged oriented to understand volcanic phenomena, recognize the hazards and their impact on people, emergency management, community education, case histories and risk mitigation to reduce the impacts of volcanism and its effects on society.

Chile is a country well-known not only because of the recent and frequent explosive volcanic activity, but also because of its friendly and warm people, amazing landscapes, delicious food and famous wines from vineyards grown on volcanic soils. Puerto Varas is a small pleasant tourist town, and probably one of the best places to be in November, combining a variety of outdoors activities together with an enjoyable nightlife that undoubtedly will make the meeting more attractive.

PUERTO VARAS AND CONFERENCE VENUE

The Cities on Volcanoes 9 conference will be held in Puerto Varas (www.visitpuertovaras.cl), 900 km south of Santiago, Chile's capital. It is a charming tourist town located in the south-western extreme of the Llanquihue glacial lake (41.3°S) with the active

Andean volcanic chain located only 30 to 40 km to the east (e.g. Calbuco and Osorno volcanoes pictured below).

The conference venue will be the Hotel Patagónico (<http://www.hotelpatagonico.cl>). Los Lagos Region's capital Puerto Montt (200,000 inhabitants) is located at only 17 km south from Puerto Varas through Highway 5.



THE NEIGHBOURING VOLCANOES

Recent eruptions of Andean volcanoes near Puerto Varas (Llaima: 2008; Chaitén: 2008-09; Cordón Caulle: 2011-12; Villarrica: 2015 and Calbuco: 2015) have caused substantial societal disruptions not only in Chile but also in other countries, such as Argentina and as far as Australia and New Zealand because of the impact of ash clouds on air navigation. Since volcanic activity will continue to occur in the Andes, risks to life and property will also increase due to exposure to volcanic hazards.

Although hazard maps do exist for Osorno and Calbuco volcanoes, these need to be updated based upon the new geological knowledge emerged in the last few years and the recent Calbuco volcano eruption effects. The challenge, therefore, is to provide quality information to assist the local community in managing risks from long- and short-term hazards potential. This can be enhanced by the organization of the Cities on Volcanoes conference, through the strengthening of scientific and emergency preparedness partnerships in the region, resulting in increased capabilities, strategies and products that are more sensitive to customer needs.

One important issue to address during the conference is related to the communities living near volcanoes that are along an international border. Actually, although most of the active volcanoes in the Southern Andes are located in Chile, the ash is usually transported into Argentina causing severe damage. A key point will be to discuss how can countries work together to best ensure citizen and infrastructure safety.



TRANSPORTATION OPTIONS

Santiago International Airport (SCL) has daily connections with all major airports worldwide. There are two airline companies that fly from Santiago to the Puerto Montt Airport El Tepual (PMC), the nearest airport to Puerto Varas: LAN (<http://www.lan.com>) and SKY (<http://www.skyairline.cl>) airlines. There are 16 daily domestic flights and it takes about 1.5 hours from SCL. Sit on the left side to see the volcanoes during the flight. Between Puerto Montt airport and Puerto Varas there are taxis and transfers that take about 30 to 40 min.

Alternatively, there are many options for local terrestrial transport in buses from Santiago to Puerto Montt (e.g. ETM: <http://www.etm.cl>). From the SCL airport there is a bus company Tur-Bus (<http://www.turbus.cl>) that has regular each half hour transfers to the Main Santiago Bus Terminal. The bus trip takes about 12 to 13 hours to Puerto Varas or Puerto Montt.

IMPORTANT DATES

Workshop proposals, August-December 2015
Second circular and call for papers, March 2016
Abstract submission, April-June 2016
Grant application, July 2016
Early registration, April-July 2016



LOCAL ORGANIZING COMMITTEE

President: Rodrigo Alvarez, Chief Executive Officer

Chair: Mario Pereira, Deputy Director of Geology

General Secretary: Paul Duhart

Executive Secretary: Hugo Moreno

Members: Álvaro Amigo, Paula Baltra, Daniel Basualto, Daniel Bertín, Mauricio Mella, Jorge Muñoz, Edmundo Polanco, David Quiroz and Jaime Tobar.

SCIENTIFIC-TECHNICAL AND NATIONAL STEERING COMMITTEES AND MULTIDISCIPLINARY REFERENCE GROUP

They will be informed in the Second Circular.

PRELIMINARY SCIENTIFIC-TECHNICAL ISSUES

- Volcanic eruptions: processes and hazards mapping.
- Volcano monitoring: alert levels and uncertainties.
- Remote sensing: application to monitoring techniques.
- Education and communication with communities and authorities.
- Volcanic risk: evaluation and mitigation.
- Land use planning in volcanic areas.
- Emergency plans and crisis managements: recent case studies.
- Environmental impacts of volcanic eruptions and health effects on local communities.
- Monitoring Andean volcanoes: state of the art for warning and communicating with communities.
- International collaboration at volcanoes: the ALVO mission.
- Geoarchaeology, geoparks and tourism in volcanic areas.
- Eruption impacts on communities along the borderline.

PRELIMINARY PRE-CONFERENCE FIELD TRIPS

- Central Andes Volcanic Zone: Lascar volcano
- Southern Andes Volcanic Zone: Laguna Del Maule volcanic complex
- Southern Andes Volcanic Zone: Llaima volcano-Küttralcura geopark

PRELIMINARY INTRA-CONFERENCE FIELD TRIPS

- South Calbuco volcano
- North Calbuco volcano
- Osorno volcano

PRELIMINARY POST-CONFERENCE FIELD TRIPS

- Llaima volcano
- Villarrica volcano
- Chaitén volcano
- Cordon Caulle volcano (from the volcano to Argentina)

The aim of the excursions is to take advantage of the superb variety of volcanoes in the country, focusing on impact and mitigation learned from recent eruptions of Chaitén, Calbuco and Caulle volcanoes, where hazards assessments have been developed to some extent in the neighbouring Chilean and Argentinean communities.

Dates and costs will be announced in the Second Circular.

SOCIAL PROGRAM

Puerto Varas is known as the "City of the Roses" and is located at the shore of the Llanquihue Lake. It is essentially a tourist town, gateway to numerous attractions, and a paradise for fly fishing, mountain climbing, skiing, trekking, water sports and horseback riding, among others. Bariloche in Argentina can also be visited from Puerto Varas to the east through the Vicente Perez Rosales National Park, sailing across the Todos Los Santos Lake and crossing by Peulla pass.

The official social program will include events in the city and neighbourhood tours, historical reviews and artistic presentations.

REGISTRATION FEES

Early Registration: 01 Apr-31 Jul 2016

Late Registration: 01 Aug-20 Oct 2016

Participant Category	Early bird	Late
IAVCEI Donor Member	US\$ 450	US\$ 500
IAVCEI Non Donor Member	US\$ 500	US\$ 550
Non IAVCEI Member	US\$ 550	US\$ 600
Accompanying person	US\$ 350	US\$ 400
Student	US\$ 200	US\$ 250
Non academic local participants	US\$ 40	US\$ 50

PRE-REGISTRATION FORM, CITIES ON VOLCANOES 9, Puerto Varas-Chile, November 20-25, 2016

Name:

Institution:

Address:

City/State/Zip code:

Country:

Phone:

Fax:

Email:

I intend to submit a contribution:

Preliminary title of the contribution:

Accompanying person:

For further information please contact:

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Photographs: Calbuco volcano (N. Garrido); Llanquihue lake and Osorno volcano, Calbuco volcano and Puerto Varas City (P. Duhart); Calbuco volcano and Calbuco volcano impact (M. Mella); Villarrica volcano impact (H. Moreno); Chaitén volcano and Cordón Caulle volcano (J. Muñoz).