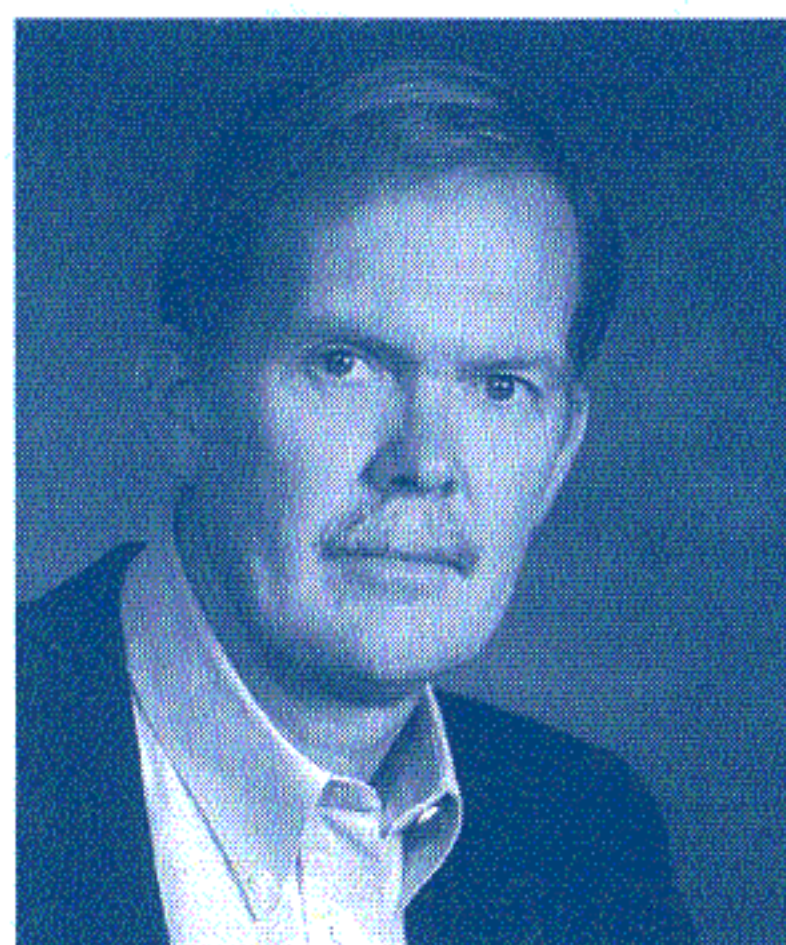


FROM THE PRESIDENT

As the role of cities in the global economy continues to grow in the 21st Century, a volcanic eruption near a large city can have serious regional or global effects. We must focus the geophysical, atmospheric, hydrologic, and geological sciences on interdisciplinary approaches to solving the urban problems of vulnerability and sustainability. Globally, there are 59 large cities near potentially active volcanoes, including two megacities (Manila and Mexico City); the population at risk is well over 50 million people.



Grant Heiken

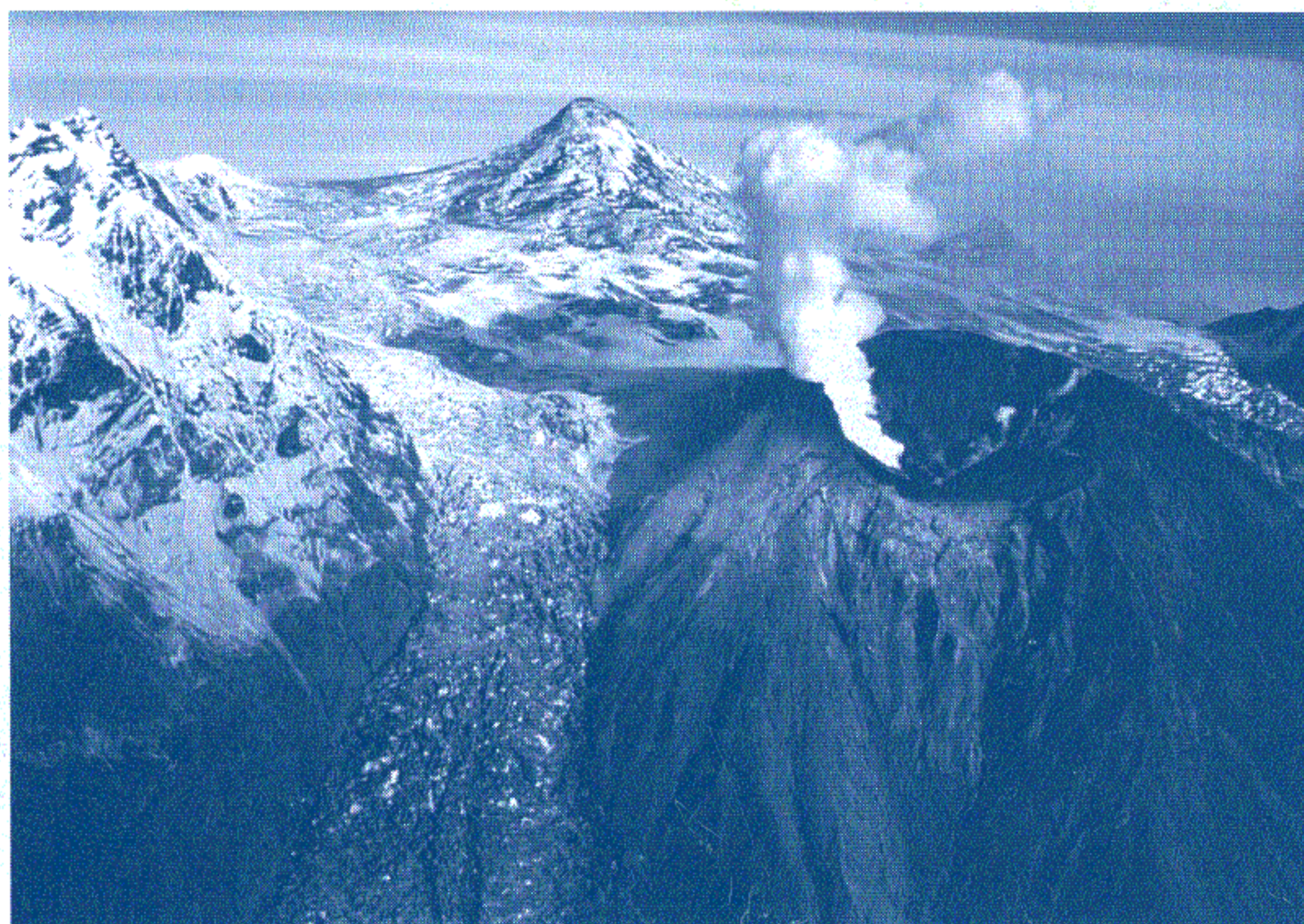
Because of the proximity of volcanoes such as Popocatepetl and Taal Volcano to densely populated urban areas, more and more volcanologists are moving 'into the city'. There is a growing focus toward the integration of volcanic hazard studies with data-based models of urban infrastructure - transportation, energy, telecommunications, water distribution, and public health - and with social and political framework. To prevent large-scale disasters in cities on or near volcanoes, we must go well beyond our traditional hazard mapping and monitoring and involve the community in extensive education and public awareness campaigns. Risk evaluation must rely heavily on modeling and visualization of physical processes and their effects, which are easily grasped by emergency planners, the insurance industry, policy makers, and the public.

Continued on page 3:>>

CATALOG OF THE HISTORICALLY ACTIVE VOLCANOES OF ALASKA

The U S Geological Survey, in cooperation with IAVCEI and with the Catalog of Active Volcanoes of the World (CAVW) Project, has just published the *Catalog of the Historically Active Volcanoes of Alaska* as Open File Report 98-582 (1998, 104 p.). This report is part of the group of catalogs entitled *Catalogue of Active Volcanoes of the World* whose first volume was published in 1951. Authors of the Alaskan catalog are T P Miller, R G McGimsey, D H Richter, J R Riehle, C J Nye, M E Yount, and J A Dumoulin. The catalog discusses the location, physiography and structure, eruptive history, geology, and composition of those volcanoes in Alaska that have experienced one or more eruptions in historical time i.e., since 1760 in Alaska.

Of the 41 volcanic centers listed in this catalog, 29 had one or more documented historical eruptions, 10 may have had eruptions, and two experienced such severe volcano-seismic crises resulting from the near-surface movement of magma that they are also included in the catalog. The catalog builds upon earlier catalogs and chronologies established by I Veniaminov in 1840 and C Grewingk in 1848, and particularly on the pioneering work of Robert R Coats published in 1950. The classic *Volcanoes of the World*, published in 1981 by Tom Simkin and others and a second edition in 1994 by Simkin and Lee Siebert of the Smithsonian Institution, provided much modern information, as did material from the Smithsonian's *Scientific Event Alert Network* and *Bulletin of Volcanic Eruptions*. Finally, material from the files of the Alaska Volcano Observatory and the most current geologic literature brought the present catalog to its final state.



View looking north of the Crater Peak flank at Spurr volcano, Cook Inlet area, Alaska. Crater Peak has been the site of the 1953 and 1992 historic eruptions at Spurr Volcano.

Continued on page 3:>>

NEW BOOKS
AMBAE
NOMINATIONS
TRIBUTES



IUGG 99 - SCIENTIFIC FIELD TRIPS

There are a number of exciting field trips arranged by IAVCEI to areas of Great Britain, Ireland and Europe. These are open to all, subject to availability. If you are interested, contact the organisers as soon as possible. Write to IUGG99 Field Trips, School of Earth Sciences, University of Birmingham, Edgbaston, Birmingham B15 2TT, UK or fax IUGG99 Field Trips on +44 (0) 121 414 4942. For the most up-to-date information check the web site: <<http://www.bham.ac.uk/IUGG99/fieldtrips.htm>> .

PRE-MEETING EXCURSIONS

A0 Commissions on Volcanogenic Sedimentation field workshop in South Iceland

- * July 11-18, 1999
- * Accommodation in mountain huts or sleeping bag
- * ~US\$970 (excluding airfare to Iceland)
- * Maximum 35 participants, minimum 10

A1 Commission for Explosive Volcanism field workshop: Inside Silicic Calderas

- * July 7-17, 1999
- * Hotel accommodation
- * ~US\$800
- * Maximum 25 participants

A2 Active volcanoes in Iceland

- * July 9-18, 1999
- * Full board and local flights included
- * ~US\$1380 (excluding airfare to Iceland)
- * Maximum 25 participants

A3 Ordovician volcanics in East and South-East Ireland

- * July 10-16, 1999
- * A rare opportunity to visit the Ordovician volcanic island of Lambay
- * ~US\$650 (excluding travel to Dublin)
- *

A5 Volcanism of the Eifel District, Germany

- * July 15-18, 1999
- * Accommodation and breakfast included
- * ~US\$350

SHORT FIELD-TRIPS DURING THE MEETING

B1 Volcanoes of the Lake District

- * Depart Friday evening July 23 and return Sunday evening July 25, 1999
- * Budget accommodation
- * \$US120

B2 Igneous geology of the Firth of Forth, Scotland

- * Depart Friday July 23 and return Monday July 26, 1999
- * US\$450
- * Maximum 40 participants

B3 The volcanoes of the Massif Central

- * Depart Saturday July 24 and return Tuesday July 27, 1999
- * US\$450

B4 The igneous geology of Guernsey

- * Depart Saturday July 24 and return Tuesday July 27, 1999
- * US\$450
- * Maximum 30 participants

LONGER FIELD TRIPS AFTER THE CONFERENCE

C1 The British Tertiary Volcanic Province

- * 24-31 July, 1999
- * Field trip ends in Edinburgh
- * US\$750
- * Maximum 25-30 participants

C3 Etna and the Aeolian Islands

- * 31 July to 7 August, 1999
- * Three days on Etna, the rest on Lipari

C4 Volcanoes of the Caribbean

- * Are you interested in seeing the recently active volcano on Montserrat, the Soufriere of Guadeloupe and Mont Pelee on Martinique? If so act quickly and contact the organisers
- * 10 day tour
- * ~US\$2000
- * Minimum 10 participants

C5 Commission for Explosive Volcanism field trip to Kos and Nisyros, Greece

- * 31 July to 6 August, 1999
- * US\$700

C6 Quaternary Caldera volcanoes of the Kenya Rift Valley

- * 31 July to 6 August, 1999
- * Accommodation in rondavels/cottages and tents.
- * US\$1000 (excluding charter flight to Nairobi)
- * Note this trip is unsuitable for asthmatics
- * Maximum 20 participants plus 2 leaders

IUGG 2003!

The Japanese National Committee for Geophysics (JNCG) of the Science Council of Japan has just sent an official letter to the IUGG to invite the XXIII General Assembly in 2003. The Japanese member societies including the Volcanological Society of Japan will organize the Assembly together with JNCG under the auspices of the Ministry of Education, Science, Sports and Culture. The proposal is to hold the General Assembly in early July 2003 in the city of Sapporo, the capital of Hokkaido Prefecture.

CATALOG OF THE HISTORICALLY ACTIVE VOLCANOES OF ALASKA

>>Continued from page 1:

At least 265 historical eruptions have definitely occurred in Alaska and another 45 may have occurred, giving a frequency rate of 1.1 to 1.3 eruptions per year since 1760. However, this figure is a minimum since many eruptions early in this period surely went unreported. Indeed, estimating eruption frequency in a region as remote as the Aleutian arc based on the historical record has its problems. An analysis of eruptions per decade for the past 200 years shows a general increase in reports beginning in the mid 1800's and continuing to the mid 1900's where the rate of increase levels off. This increase is assumed to represent more observations because of expanded travel to this remote region and advances in rapid communication of eruptive events.

A more meaningful eruption frequency estimate can be calculated over the 50 year period from 1945 - the end of World War II - through 1994, a time period that marked the beginning of widespread air travel and other commerce in this remote part of the world. Using this 50-year interval, 90 eruptions have been reported from 23 volcanoes for a frequency of 1.8 eruptions per year. Although these are estimates of the number of separate eruptions per year, many individual eruptive episodes are spread over weeks and even months. In any one year, therefore, it is not unusual for three or four separate Alaskan volcanoes to experience eruptive activity.

The number of separate eruptions from individual historically active centers ranges from 1 to 39, and over 60% of the 265 recorded eruptions have come from only 7 volcanoes - Veniaminof, Pavlof, Shishaldin, Akutan, Makushin, Okmok, and Bogoslof Island. These frequently active volcanoes occur along, or behind, a 640-km-long segment of the arc in an area where movement between the North American and Pacific plates is most nearly orthogonal.

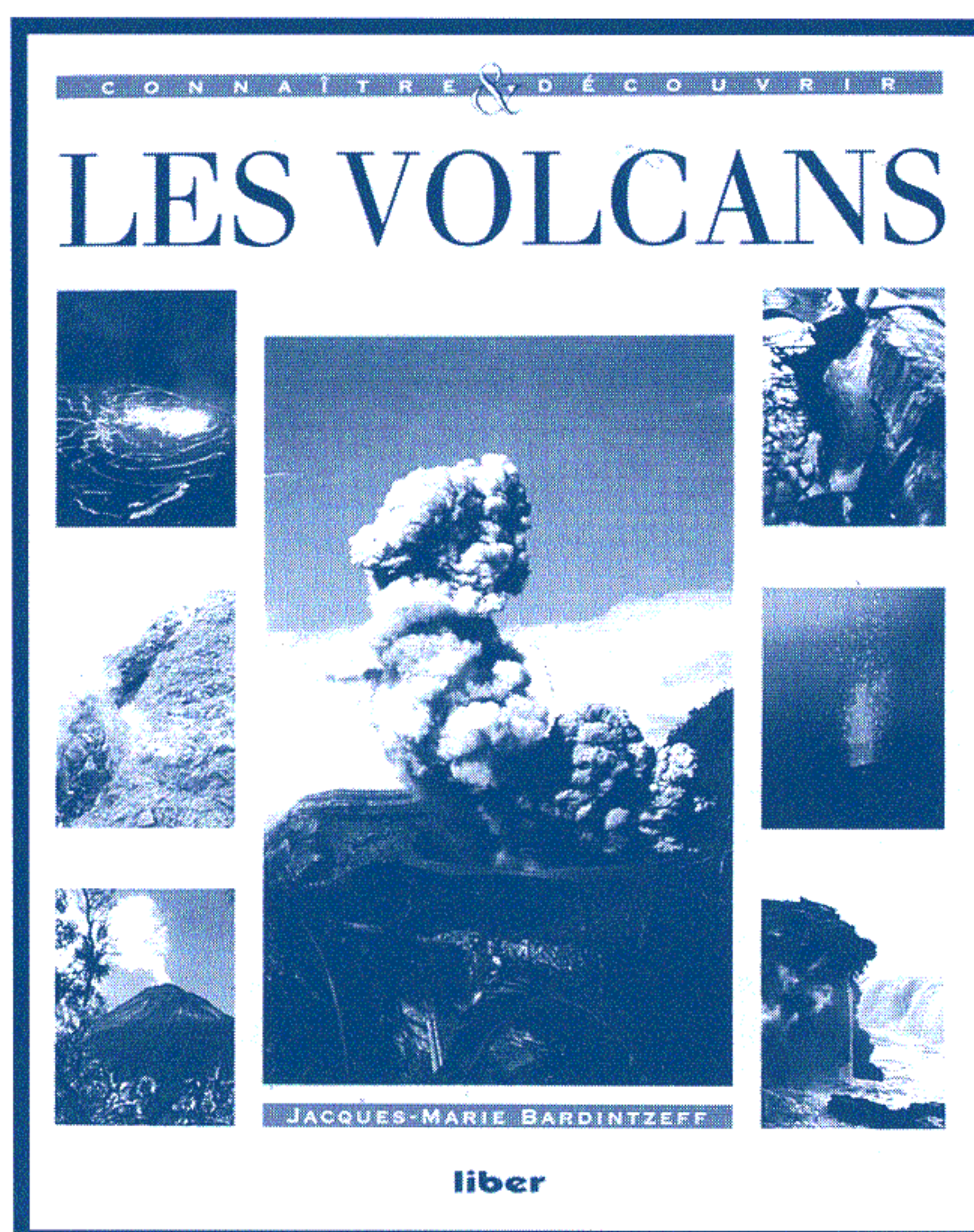
In the catalog, each active volcano is listed by name followed by the type, location, elevation, quadrangle name, and CAVW number. Using the CAVW format, two to three pages are devoted to the discussion of form and structure, volcanic activity, and composition. For each volcano, an illustration shows total alkalis plotted against silica and the sample classified as to rock type. These plots can then be compared with several hundred similar plots of Aleutian arc volcanic rocks for the particular segment (oceanic island arc vs. continental margin) of the arc in which the volcano occurs. In addition, plots of FeO/MgO against silica can be compared for tholeiitic vs. calc-alkaline affinities.

The catalog is intended not only for scientists and the residents of Alaska but also for government agencies concerned with emergency response, air traffic operations, and weather. The catalog is available for inspection on the AVO Home Page <<http://www.avo.alaska.edu>> where it can be downloaded as a series of PDF files. The report can also be ordered from U S Geological Survey, Information Services, Box 25046, MS 517, Denver, CO 80225, USA.

Tom Miller

E-mail: tmiller@tundra.wr.usgs.gov

NEW BOOK



'Connaître et Découvrir les Volcans' by Jacques-Marie Bardintzeff is a popular book in the French language. Well illustrated it includes the most recent eruptions around the world: Pinatubo, Phillipines, 1991-95, Vatnajökull, Iceland, 1996, and Rabaul, Papua New Guinea, 1994-99, in addition to volcanic hazards, forecasting and mitigation of eruptions. For more information, write to Liber Publications, 2, rue Christine, 75006 Paris, France, telephone +33 1 40 51 5200, or facsimile +33 1 40 51 5205.

FROM THE PRESIDENT

>>Continued from page 1:

IAVCEI is proposing to the IUGG that the years 2001-2010 be the 'International Decade of Geosciences in the Cities', and that each nation select a 'Decade City'. This idea follows the same approach that IAVCEI used for 'Decade Volcanoes' during the International Decade of Natural Disaster Reduction - an effort led by Chris Newhall. I hope that many of you will give careful consideration to the need for more volcanologists to participate in interdisciplinary efforts for cities located near volcanoes. Also, by example, we can perhaps lure more of our geosciences colleagues into applying their expertise to problems in the urban environment.

Note: This column is based on an abstract for the Birmingham General Assembly of IUGG, by Greg Valentine, Giovanni Orsi and myself.

Grant Heiken

President of IAVCEI

Los Alamos National Laboratory

E-mail: heiken@lanl.gov

NEW ACOUSTIC STATION ON LAKE VOUI (AMBAE VOLCANO) VANUATU

ORSTOM (IRD) and the Université de Savoie (France), with the assistance of the Vanuatu Department of Geology, Mines and Water Resources, have installed a monitoring station on Lake Voui, Lombenben volcano, with the help of the population of West Ambae during a three day mission.

Some 1,200 kg of equipment were dispatched by VANAIR from Port Vila to Walaha airport, then by helicopter (Helicopter Vanuatu) to the Lombenben summit; on the dried-out lake (Manaro Ngoro); and finally put down for the main part on one of the islands of Lake Voui - the islands formed by the remains of one of the borders of the crater.

About twelve persons (including a geophysicist, computer scientist, volcanologist technician, chemist, technical labour, pilot and... a reporter) prepared the site, immersed the captors and installed a set of 10 solar panels and batteries to supply power to the electronic system and the ARGOS transmitter which transmit information in real time. The continuous monitoring of the temperature of the waters of the lake, and the recording of acoustic signals across a very wide range of frequencies, will enable to monitor the activity of Lake Voui in which gases have been escaping through some 50 million cubic meters of water since 1995.

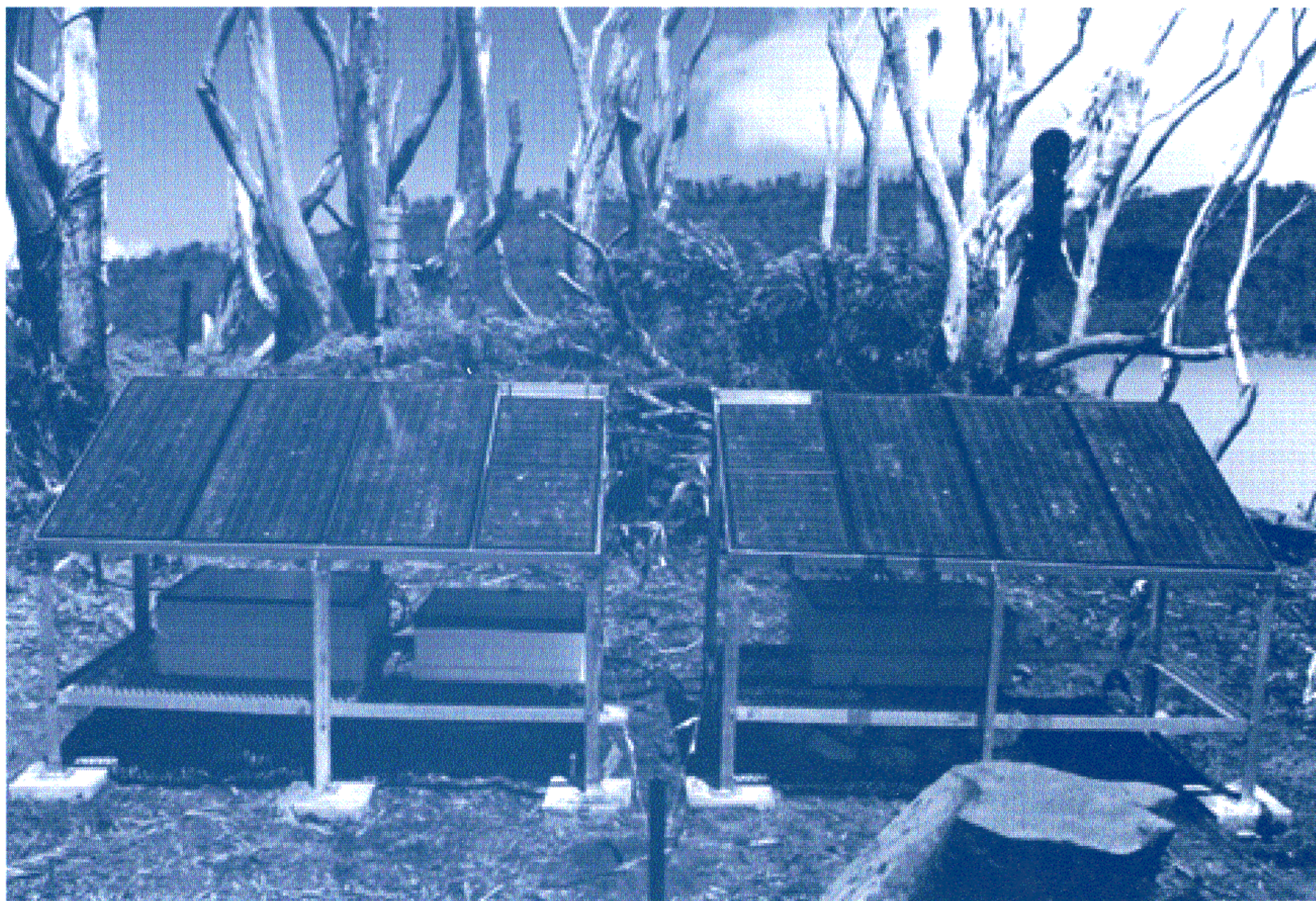
After Lake Kelut (Indonesia) and the lake of Taal volcano (Philippines), Ambae (Aoba) is the third volcano world-wide to be equipped with such a system.

This whole operation, the total cost of which, including the preparatory stages, exceeded 40,000 US\$ was subsidised by the French Ministry for Foreign Affairs through the French Embassy in Vanuatu, by ORSTOM and the Université de Savoie as well as the Vanuatu Government through the Ministry for Internal Affairs (National Disaster Management Office).

For more information contact: Michel Lardy, Centre Orstom P.O. Box 76, Port-Vila, Vanuatu; Michel Halbwachs and Jacques Grangeon, Université de Savoie, Campus Scientifique, F73376, Le Bourget du Lac, Cedex France; and/or Jeanne Tabbagh, Centre de Teleobservation informatisée des volcans, CNRS-CRG, Garchy, France.

Henry Gaudru

E-mail: HGaudruSVE@compuserve.com



The analysis and monitoring station at the Voui crater lake, showing solar panels, watertight batteries (2 boxes), electronic enclosure for acoustic measurements and water temperature monitoring, and ARGOS transmitter.

NOMINATING COMMITTEE COMPLETES ITS WORK

Nominations of people to serve on the 1999-2003 IAVCEI Executive Committee have been received and considered by the IAVCEI Nominating Committee chaired by former IAVCEI President Professor Shigeo Aramaki. The report of the Nominating Committee - reproduced below - has been received by me at the IAVCEI Secretariat. I would like to thank Professor Aramaki and the following members of the Nominating Committee for their care and meticulous attention to procedural detail and fairness in the nomination process: P.W. Francis (United Kingdom), J.P. Lockwood (USA), I.A. Nicholls (Australia), M. Rosi (Italy), and J.Stix (Canada).

The Nominating Committee received very few nominations, and some nominations were ineligible because they did not conform with the Statutes and By Laws - for example: seconders cannot be from the same country as that of the nominee; nominees, nominators, and seconders must be IAVCEI members or National Correspondents; and all nominees must have seconders. The result of this was that the Nominating Committee received only one eligible nomination for each of the key positions of President, Secretary General, and two Vice Presidents. However, six nominations were received for the four positions of Member, meaning that a postal vote will have to be undertaken (voting forms are included separately with this issue of IAVCEI News). The small number of eligible nominations is disappointing but not wholly unexpected given that some time will be required before members become fully acquainted with the nominating and voting system.

One problem arose with the Statutes and By Laws. Nowhere do they state explicitly that members of the Nominating Committee cannot be nominees, nominators, or seconders for positions on the Executive Committee. There is an implication of course is that they should not be, for obvious conflict-of-interest reasons, but the Statutes and By Laws at present do not disallow it. The new Executive Committee may want to consider this matter in the future and to discuss addition of a new clause to the Statutes and By Laws.

The 1995-99 Executive Committee will hand over to the newly elected Committee during the 1999 IUGG General Assembly in Birmingham, United Kingdom, in July.

Wally Johnson

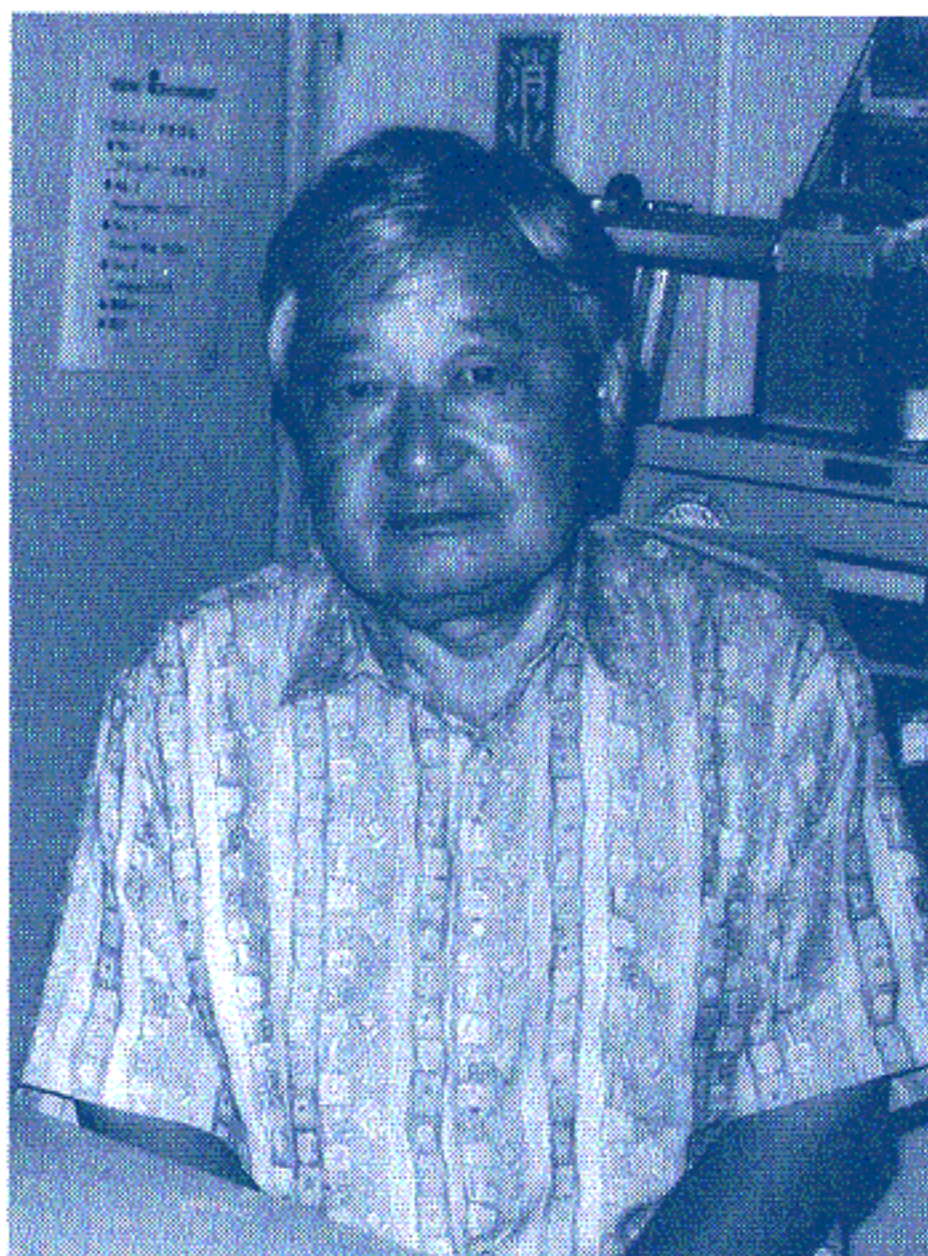
IAVCEI Secretary General

18 February 1999

To: The Executive Committee, IAVCEI

In the following, we report the conclusions of the Nominating Committee for the election of the officers of IAVCEI for 1999-2003.

1. Nominations of the candidates from the members of IAVCEI were received via e-mail and by postal air-mail.
2. The list of the candidates was screened to confirm their eligibility according to the Statutes and By Laws.



Shigeo Aramaki

3. The final list of eligible nominees, with nominators and seconders, is as follows:

President: R S J Sparks (UK). Nominated by R W Johnson (Australia). Seconded by R A F Cas (Australia), J W Cole (New Zealand), G Heiken (USA), and V Ponomareva (Russia).

Secretary General: S R McNutt (USA). Nominated by G Heiken (USA). Seconded by R A F Cas (Australia), J W Cole (New Zealand), R W Johnson (Australia), and V Ponomareva (Russia).

Vice President: J Keller (Germany). Nominated by G Heiken (USA). Seconded by R A F Cas (Australia), J W Cole (New Zealand), R W Johnson (Australia), and V Ponomareva (Russia).

Vice President: T Ui (Japan). Nominated by G Heiken (USA). Seconded by R A F Cas (Australia), J W Cole (New Zealand), R W Johnson (Australia), and V Ponomareva (Russia).

Members of the Executive Committee (six nominations in alphabetical order of country name):

1. J McPhie (Australia). Nominated by R W Johnson (Australia). Seconded by J W Cole (New Zealand), G Heiken (USA), and V. Ponomareva (Russia).
2. H Moreno (Chile). Nominated by G Heiken (USA). Seconded by R A F Cas (Australia), J W Cole (New Zealand), R W Johnson (Australia), and V Ponomareva (Russia).
3. R Sukhyar (Indonesia). Nominated by R W Johnson (Australia). Seconded by R A F Cas (Australia), J W Cole, (New Zealand), G Heiken (USA), and V Ponomareva (Russia).
4. T Fujii (Japan). Nominated by H Hamaguchi (Japan). Seconded by J-L Cheminee (France), B Chouet (USA), D B Dingwell (Germany), C Newhall (USA), R Sukhyar (Indonesia), and W S Tjetjep (Indonesia).
5. B Houghton (New Zealand). Nominated by M Garcia (USA). Seconded by S Self (USA), R Santacroce (Italy), and R J S Sparks (UK).
6. J Marsh (South Africa). Nominated by G Heiken (USA). Seconded by R A F Cas (Australia), J W Cole (New Zealand), R W Johnson (Australia), and V Ponomareva (Russia).

*** You must have 1999 membership to qualify to vote ***

REGINALD 'REGGIE' OKAMURA (1936-1999)



The science of volcanology has advanced over time through the collective input of thousands of individuals, most of them largely forgotten as time moves on. The names we do remember are mostly those of well-established scientists e.g., Scrope, Van Bruch, Dana, Jagger, Rittman, Gorshkov, Minakami. Although Okamura will not be remembered for having written many papers, his contributions to the field of volcanology were enormous, and need to be recognised.

Reggie died in Hilo, Hawaii, on Saturday, January 16, 1999, following a massive heart attack. He will be long remembered in the volcanology community for his timeless contributions to the US Geological Survey's (USGS) Hawaiian Volcano Observatory (HVO), where he began his career in 1958 as a geochemist. He soon focused on the Observatory's deformation operations, where his ability to mentally manipulate complex numerical data was legendary - no Ph.D. with the best of calculators could keep up with Reg! He retired from the USGS in 1992, as HVO's Chief of Operations, having provided the continuity and glue that kept HVO flourishing for 34 years, through 11 Scientists-in-Charge. He earned the respect of all those he worked with, and because of his extensive friendships, became HVO's best spokesman to the Hawaii community at large. Three decades of volcanologists, including hundreds of international visitors, were befriended by Reggie and knew his mischievous smile, immediately followed by his soft chuckle.

Reggie also knew Pele, the Hawaiian goddess of volcanoes. In his second year on the staff, Kilauea Iki erupted in one of the most spectacular shows ever (1959), immediately followed by the 1960 flank eruption that destroyed the village of Kapoho. Several short East Rift Zone eruptions, the 1969-1974 Mauna Ulu activity, four Kilauea summit outbreaks, two Mauna Loa eruptions, and the Pu'u 'O'o eruption now in its 16th year of continuous activity, were all studied at close hand. Following the Kilauea Iki eruption, Reggie pioneered new techniques and became the world's authority on drilling through lava lake crusts into molten lava. He was active in promoting public awareness of volcanic hazards, and helped develop a widely cited and successful program that brought minority students into volcanology. After retirement Reggie helped found a private consulting firm on geologic hazards and became even more

deeply involved in Hawaii politics (and helped to educate the U.S. Congress about needed support for volcanology!).

Reggie's passing is a deep loss to his many friends around the world, but the Okamura legacy of service to HVO remains - his brother Arnold replaced Reggie in 1992 as Assistant Scientist-in-Charge and Chief of Operations at the Observatory.

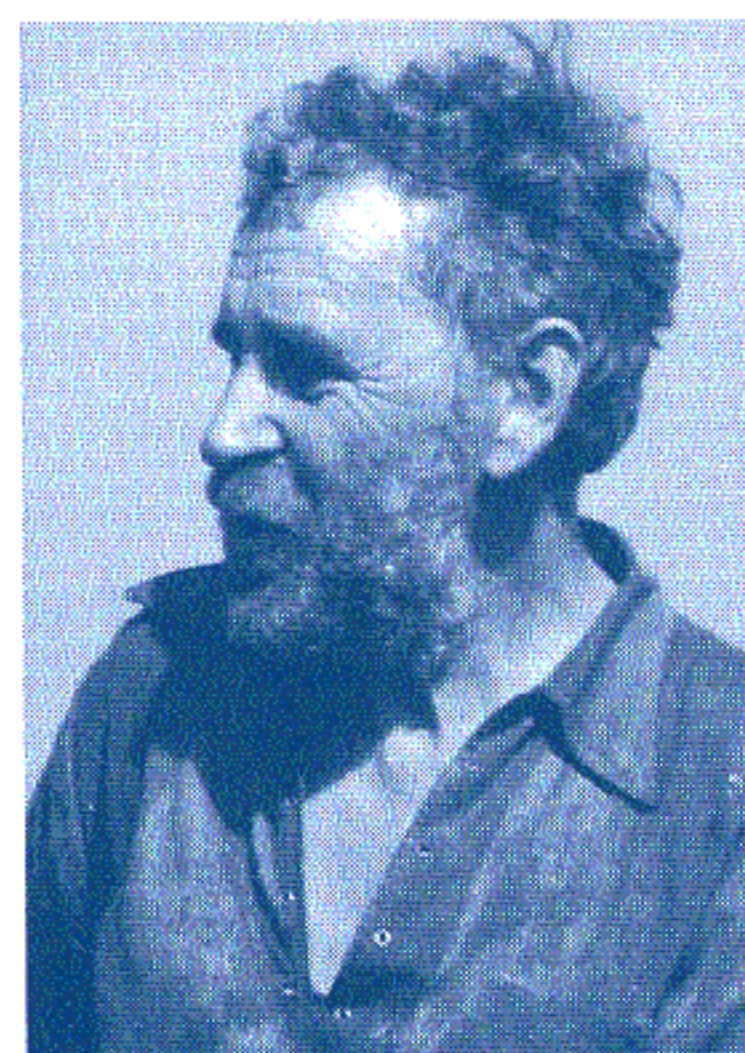
John P. ('Jack') Lockwood

E-mail: geohaz@aloha.net

Floyd W. McCoy

E-mail: fmccoy@hawaii.edu

OLEG VOLYNETS 1937-1998



Oleg Volynets, an outstanding Russian volcanologist and geochemist died on October 24, 1998 in Petropavlovsk-Kamchatsky. He worked in the Kurile-Kamchatka, Far West Aleutian region for 39 years studying Late Miocene-Quaternary volcanic rocks and authored more than 220 research papers on various aspects of their petrology and geochemistry.

Oleg Volynets was born on February 25, 1937, in Irkutsk, Siberia. After graduating from Moscow University in 1959, he went to Kamchatka. A devoted field researcher, he collected and analyzed samples from virtually all the subaerial and submarine volcanoes of the Kurile-Kamchatka island arc. His considerable efforts made it possible to understand the spatial distribution of rock types and their geodynamic significance. For young researchers, he was a kind of a magician, a person who knew everything about the rocks. "You had better ask Oleg", was the most frequent advice to anyone planning a new project or puzzled by an enigmatic rock. It is hard to realize that we can't ask for his help any more.

He was our conscience, a true 'chevalier sans peur et sans reproche'. During hard times his fortitude, kindness and good sense of humour helped his colleagues to surmount the difficulties. He worked until his very last day.

A selected bibliography of Oleg Volynets' papers will soon be available at the home page of the Institute of Volcanic Geology and Geochemistry <<http://wings.buffalo.edu/academic/departments/geology/ivgg/>>

Vera Ponomareva

E-mail: ponomareva@geology.ru

INTERNATIONAL MEETING AT THE ROYAL SOCIETY OF LONDON 6 & 7 OCTOBER 1999

CAUSES AND CONSEQUENCES OF ERUPTIONS OF ANDESITE VOLCANOES

The last few years has seen some major advances in understanding eruptive phenomena at andesite volcanoes. Progress has happened because of advances in technology (such as SAR interferometry and other remote sensing methods), advances in modelling of key volcanic processes (such as volcanic earthquakes and explosion dynamics) and detailed integrated studies of eruptions such as the Galeras in Colombia, Mount Spurr in Alaska, Mount Unzen in Japan and the Soufriere Hills Volcano, Montserrat. There will be a Discussion meeting on this topic at the Royal Society of London on 6th and 7th October 1999, convened by Peter Francis, Juergen Neuberg and Steve Sparks. The purpose of this meeting is to review these advances and to look to new questions that are emerging as a consequence of progress. Royal Society Discussion meetings involve 14 keynote speakers who will present synoptic reviews and

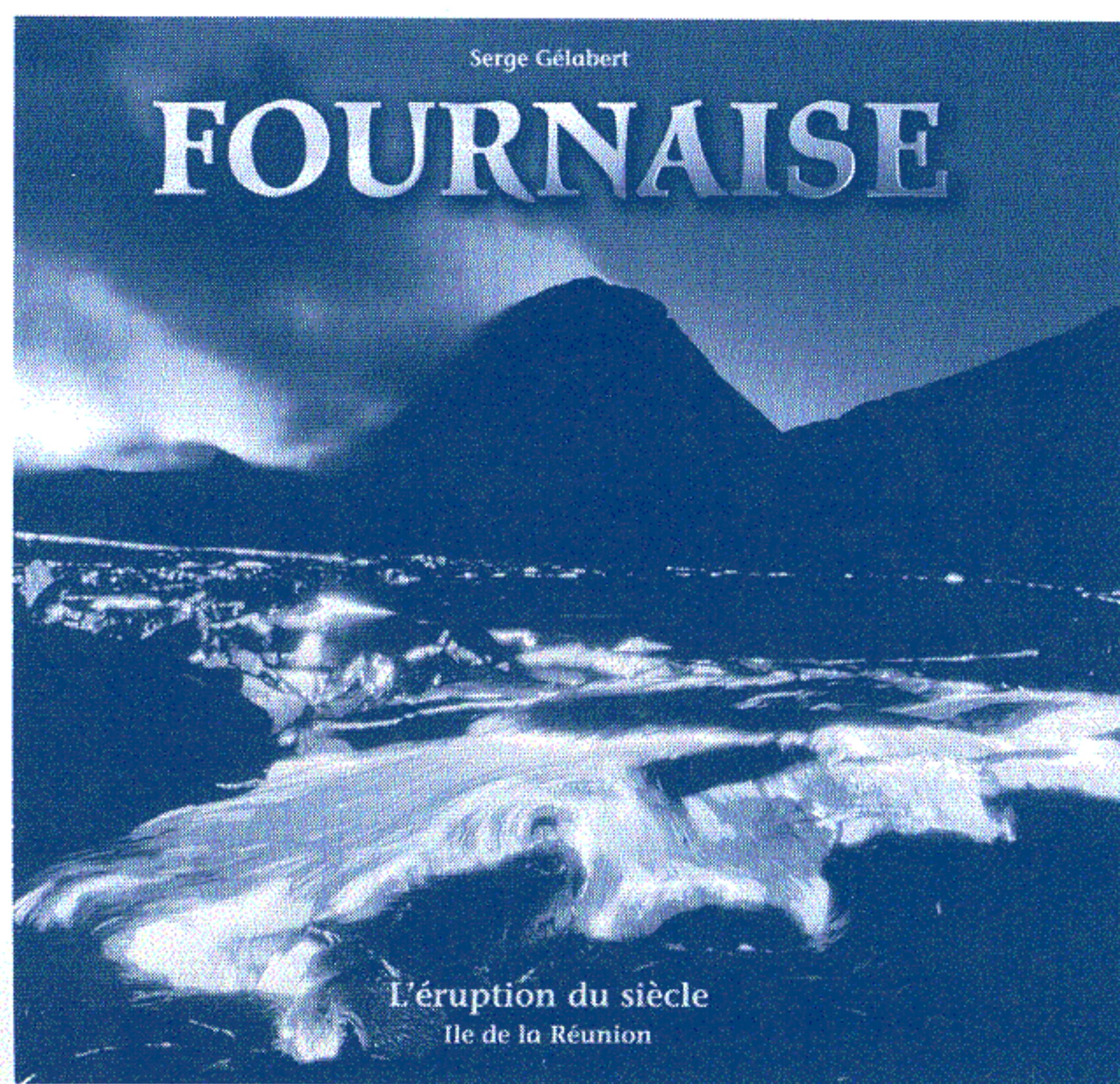
identify key scientific issues. The meeting will consider the dynamics of magma formation and eruption, monitoring methods, some important case histories and the hazards at andesite volcanoes. The speakers include Simon Turner, Bob Eichelberger, Kathy Cashman, Claude Jaupart, Juergen Neuberg, Dan Dzurisin, Peter Francis, Bill Rose, Marta Calvache, Richie Robertson, Rick Hoblitt, Barry Voight, Andy Woods and Tom Casadevall. There will also be a poster session which is open to anyone attending the meeting. The contributions to Royal Society Discussion Meetings are published in the Proceedings of the Royal Society.

Further information can be found from Ms C R Davies at the Royal Society, 6, Carlton House Terrace, London SW1Y 5AG.

Steve Sparks

E-mail: Steve.Sparks@bristol.ac.uk

BOOK REVIEW



Photographer Serge Gelabert has faithfully followed the French tradition of providing spectacular images of eruptive activity by producing a hard-cover book of outstanding colour photographs of the 1998 eruptions at Piton de la Fournaise, Reunion Island. The volcanic activity began on

9 March and lasted several months producing lava flows that, unusually, almost reached the sea. Basaltic flows emerged from three new vents, one of them called Maurice et Katia Krafft in honour of two of France's most famous volcano photographers. Maurice and Katia would have approved of Fournaise: l'éruption du siècle. Its 30 by 30 cm format allows large, full-gloss colour images of incandescent lava flows, torrents, and fountains to jump out the page at you, especially those spread across two pages. Each glossy photograph is set on white matte paper, their edges appearing rough cut and giving the impression that this is your own personal photograph album. There are short captions and some text in both French and English, but not much, as the glorious photographs are the main feature of this high-impact book. Add it to your 'beautiful volcano book' collection! Leave it around casually on your coffee table and impress visitors! The following contact details are given in the book: Photos Editions, Cine Video Production, 85 rue Juliette-Dodu, 97400 Saint-Denis, Ile de la Reunion; telephone 0262-217056; facsimile 0262-411221. The ISBN number of the book is 2-9511136-1-7.

Wally Johnson.

E-mail: wjohnson@agso.gov.au

CORRECTION TO IAVCEI NEWS 1998/3

Apologies are due to Catherine Hickson for a printer's error that removed some words at the end of her fine article on Volcanism in Canada. The end of the article should have read:

"... The Canadian Meteorological Center in Dorval Quebec has recently come on line as the VAAC for the North Atlantic to the Pacific.

Although most Canadians remain surprised when they are told that Canada has experienced violent volcanic eruptions in the last few thousand years, plans are in place to protect their safety and that of the aviation industry and flying public. Volcanic research is alive and well in Canada."

*** Do you have 1999 membership? ***

PROFESSIONAL CONDUCT OF SCIENTISTS DURING VOLCANIC CRISES

The above title is that of an IAVCEI report that has just appeared in the *Bulletin of Volcanology* (v. 60, 323-334). A reprint of the article accompanies this issue of IAVCEI News. The report is the result of extensive consultative work and discussions by the IAVCEI Sub Committee for Crisis Protocols which was set up in 1995 under the leadership of Chris Newhall (USA). Its members also include Shigeo Aramaki (Japan), Franco Barberi (Italy), Russell Blong (Australia), Marta Calvache (Colombia), Jean-Louis Cheminee (France), Ray Punongbayan (Philippines), Claus Siebe (Mexico), Tom Simkin (USA), Steve Sparks (UK), and Wimpy Tjetjep (Indonesia).

The report has evolved not without some controversy. Some people consider that it represents an attempt by IAVCEI to impose a system of ethics on the international volcanological community. However, the approach adopted by the Sub Committee is set out very clearly at the beginning of the article: "The document reports past problems, without names of specific volcanoes or protagonists, and offers suggestions to minimize these problems in the future. Because IAVCEI is neither policeman nor judge, compliance with these suggestions is by individual or observatory choice. The subcommittee recognizes that, for many of the situations described, different individuals and cultures will choose different paths. Our suggestions are not the only possible solutions: they are simply solutions that have been found helpful in previous crises".

Some people also have questioned whether reports of this nature should be published in the *Bulletin of Volcanology*.

Do you have any comments to make? Why not send your reactions to IAVCEI News and we will see if some of your remarks can be included in a forthcoming issue.

Following is the Abstract of the report:

"Stress during volcanic crises is high, and friction between scientists can distract seriously from both humanitarian and scientific effort. Friction can arise, for example, if team members do not share all of their data, if differences in scientific interpretation erupt into public controversy, or if one scientist begins work on a prime research topic while a colleague with longer-standing investment is still busy with public safety work. Some problems arise within existing scientific teams; others are brought on by visiting scientists. Friction can also arise between volcanologists and public officials. Two general measures may avert or reduce friction: (a) National volcanologic surveys and other scientific groups that advise civil authorities in times of volcanic crisis should prepare, in advance of crises, a written plan that details crisis team policies, procedures, leadership and other roles of team members, and other matters pertinent to crisis conduct. A copy of this plan should be given to all current and prospective team members; (b) Each participant in a crisis team should examine his or her own actions and contribution to the crisis effort. A personal checklist is provided to aid this examination. Questions fall generally in two categories: Are my presence and actions for the public

good? Are my words and actions collegial, i.e., courteous, respectful, and fair? Numerous specific solutions to common crisis problems are also offered. Among these suggestions are: (a) choose scientific team leaders primarily for their leadership skills; (b) speak publicly with a single scientific voice, especially when forecasts, warnings, or scientific disagreements are involved; (c) if you are a would-be visitor, inquire from the primary scientific team whether your help would be welcomed, and, in general, proceed only if the reply is genuinely positive; (d) in publication, personnel evaluations, and funding, reward rather than discourage teamwork. Models are available from the fields of particle physics and human genetics, among others."

Wally Johnson

IAVCEI Secretary General

E-mail: wjohnson@agso.gov.au

BULLETIN OF VOLCANOLOGY ORDERS

Orders for the 1999 issues of the *Bulletin of Volcanology* are due now. These should be made through the IAVCEI Secretariat. The total cost is A\$148 which includes packing and postage. Please write bank cheques to IAVCEI in Australian dollars only. The 1999 *Bulletin of Volcanology* issues will be distributed by Springer-Verlag.

Caroline Giddings

E-mail: iavcei@interact.net.au

MEETINGS



IAVCEI General Assembly 2000 - INDONESIA

Planning is progressing well for the Indonesian General Assembly. The 2nd circular will be distributed almost immediately.

The International Symposium on Popocatepetl Volcano is being held in Mexico City in March 22-24, 1999. On the left is the Symposium's logo.

Editor: Hazel Rymer, Dept. of Earth Sciences,
 The Open University, Walton Hall MK 6AA, UK
 Phone: +44 1908 653012. Fax: +44 1908 655151
 E-mail: H.Rymer@open.ac.uk
Assisted by: Caroline Giddings
 Wally Johnson
 Ray Cas