

NANYANG TECHNOLOGICAL UNIVERSITY
CV Form for Academic Staff (Part-I)

Name: Christopher Newhall

Present Appointment : Professor

School : SPMS

Division : DES

Date of 1st Appointment :

Aug 1 2008

Academic Qualifications:

PhD, Dartmouth College, 1980
MS, Univ California, Davis, 1977
BS, Univ California, Davis, 1970

Professional Qualifications/Memberships:

Geological Society of America (1972)
Geological Society of the Philippines (1974)
American Geophysical Union (1979)
International Assoc of Volcanology & Chemistry
of the Earth's Interior (1980)
Sigma Xi (1980)

Summary of Working Experience:

2008 - present	Professor, Earth Observatory of Singapore, Nanyang Technological Univ.
1993 - 2011	Affiliate Professor, Earth and Space Sciences, Univ. of Washington.
1991 - 1992	Visiting Professor, Univ. of the Philippines (volunteer)
1977 - 2005	Geologist, US Geological Survey's Volcano Hazards Program,
1970 - 1972 & 1974-1976	Peace Corps volunteer, geology instructor, Aquinas University, Philippines

CV for Academic Staff, Part II

A. TEACHING

- (1) **Development of teaching materials** -- Video "Understanding Volcanic Hazards," through IAVCEI
- (2) **Short courses** ~ 10 short courses for UNESCO and USGS

B. RESEARCH

- 1) **Awards** Krafft Medal, IAVCEI, 2008
- 2) **Citations** From Web of Science, ~900 citations, h-index 14. (missing all USGS publications, monographs, and papers in non ISI journals, which are my most important publications)
- 3) **Recognitions:**
 - Regents' Scholar, Departmental Citation, and Phi Beta Kappa, U.C. Davis, 1966-70
 - Gary Malone Award (Dartmouth, 1980)
 - Dept. of Interior Unit Service Award (to USGS-PHIVOLCS team)
 - for successful mitigation of crisis at Pinatubo Volcano, Philippines (1991)
 - Meritorious Service Award, USGS/DOI, 1995
 - Shoemaker Award for geological communication (co-recipient, with cast of many), 1998
 - Distinguished Volcanologist Award, Volcanological Survey of Indonesia, 2000
- 4) **Achievements with local significance**

Most of my career has been devoted to helping people stay safe from volcanoes. In many cases, this has been through direct crisis response, e.g., at Mount St. Helens, Long Valley, Redoubt, Pinatubo, Mayon, Nyiragongo, Tungurahua, Popocatepetl, Garbuna, Pago, and others. Frequently consulted on interpretation of volcanic unrest. Many lives have been saved, and much potential disruption and property loss averted. In other instances, it has been through training provided to local scientists, by spearheading preparation of the IAVCEI hazard videos, or by leadership within IAVCEI (see below). Yet another arena has been raising the level of protection for jet aircraft in ash-contaminated airspace. Together with a number of other colleagues, I worked to raise the issue to international attention and get the present worldwide network of Volcano Ash Advisory Centers established. I recently represented WOVO on the ICAO International Task Force on Volcanic Ash.

5) Appointment as external assessor; membership on visiting committees

Japan National Program for the Prediction of Volcanic Eruptions (1997)
Univ. of Tokyo Earthquake Research Institute (1999)
National Research Institute of Earth Science and Disaster Prevention (Tsukuba)(2000);
Natl. Institute of Geol. Sciences, Univ. of the Philippines (2003)
New Zealand FRST (foundation block funding to GNS and NIWA) (2007)
New Zealand GEONET (NZ Earthquake Commission/Geological and Nuclear Sciences) (2008)
Univ. of Tokyo Earthquake Research Institute (2009)
Italy, Istituto Nazionale di Geofisica e Vulcanologia (Volcano programs funded by Civil Defense) (2008-2010)

6) Service as editor and associate editor for international journals

Lead editor of Fire and Mud, a major monograph on Pinatubo (published 1996)
Bulletin of Volcanology (Asst Executive Editor), 1996-1999
Geological Society of America (Assoc Editor, 2009-present)
Journal of Applied Volcanology (new journal, Assoc Editor, 2011- present)
Guest editor of various volumes, including upcoming Earth Planets and Space issue on Shinmoedake eruption of 2011.

7) Service as external examiner

In 2010-2011, examiner for 1 PhD at Univ. Ghent. Previously, examiner for 11 PhD's, 9 MSc's at 9 universities worldwide

- 8) **Invited presentations at scientific meetings/workshops** – Many
- 9) **Service as a reviewer** -- Many papers and journals. Approx 1 or 2/mo for 30 years
- 10) **Session chairman / (special) session organizer in conferences** -- Many
- 11) **External research funding** -- Mostly, internal funding through USGS;
At NTU, I was peripherally involved in writing of the EOS RCE proposal
- 12) **Research activities** – Currently, leader of EOS' Volcano Group, with projects @ NTU, Singapore; also in the Philippines, Indonesia, and Papua New Guinea. All of the research projects are aimed at understanding how a variety of volcanic systems work, and how their eruptions can better be forecast. All of my contribution toward forecasts is passed to local counterparts who have formal warning responsibilities.

C. SERVICE

(1) Other services to the University

- Chair, Faculty Senate Committee on Academic Integrity 2009-2010
- First Volcano Group leader, Earth Observatory of Singapore (2008-)
- EOS representative, NTU Network for Research Integrity

(2) **Service to professional bodies** -- Principally, as leader within IAVCEI of Commissions or Task Groups on Mitigation of Volcanic Disasters, Decade Volcanoes, Crisis Protocols, and the World Organization of Volcano Observatories (WOVO). Presently, WOVO representative on ICAO International Volcanic Ash Task Force (scientists, air traffic regulators, manufacturers, pilots)

3/ **Service to society** – Volcanological Assistance as requested, for SG govt and for other governments (in SE Asia, Latin America, and Africa, during and between volcanic crises. Work with aviation community to avoid jet encounters with volcanic ash. Chairman, UN-OCHA International Scientific Coordinating Committee for the Nyiragongo- Lake Kivu crisis, 2002-2004. Most of my career has been one of service to wider society, rather than within academia.

D. WORK LOAD (TEACHING)

DES 7002 Seminar (2009-2010)
DES 7004 Field Experiences
DES 7007 Volcanic Processes (2011, 2013)
DES 7003 Developing and Presenting of Ideas in Earth Science (2011, 2012)

Co Advisor for 1 PhD student
Mentored an intern, June 2011.

E. PUBLICATIONS

Newhall, C.G., 1977, The geology and petrology of Mayon Volcano, southeastern Luzon, Philippines: unpub. MS thesis, University of California, Davis, 292 p.

Newhall, C.G., 1979, Temporal variation in the lavas of Mayon Volcano, Philippines: Jour. Volcanol. Geotherm. Res., v. 6, p. 61-83.

Newhall, C.G., 1980, Geology of the Lake Atitlán area, Guatemala: unpub. Ph.D. dissertation, Dartmouth College, 364 p.

Newhall, C.G., 1980, Review of volcanologic discussions in the PSAR and related documents, Philippine Nuclear Power Plant #1: unpublished review for U.S. Nuclear Regulatory Commission, 93 p.

Simkin, T., L. Siebert, L. McClelland, D. Bridge, C. Newhall, and J. Latter, 1981, Volcanoes of the World; Stroudsburg, PA, Hutchinson Ross, 232 p. (superceded by Simkin and Siebert, 2nd, 3rd eds)

Poppe, L.J., C.K. Paull, and C.G. Newhall, 1981, X-ray mineralogy of cores from two Guatemalan caldera lakes, U.S. Geological Survey Open-file Rept. 81-1333, 7 p.

Newhall, C.G., and S. Self, 1982, The Volcanic Explosivity Index (VEI): An estimate of explosive magnitude for historical volcanism: *Jour. Geophys. Res.*, v. 87, C2, p. 1231-1238. (defines a power-law magnitude-frequency relation for historical volcanism)

Newhall, C.G., 1982, A method for estimating intermediate and long-term risks from volcanic activity, with an example from Mount St. Helens, Washington: USGS Open-file Rept. 82-396, 59 p.

Newhall, C.G., 1982, Prediction of volcanic eruptions at Mount St. Helens, Washington and Long Valley, California: Proceedings of the First Seminar Workshop on Philippine Volcanoes and Volcanic Terranes, December 1982, Quezon City: Philippine Institute of Volcanology, p. 98-111.

Newhall, C.G., 1983, Anticipating volcanic hazards at Mount St. Helens, Washington: Proceedings of the Symposium on Erosion Control in Volcanic Areas, Japan Public Works Research Institute Tech. Memorandum no. 1908, p. 295-328.

Newhall, C.G. and W.G. Melson, 1983, Explosive activity associated with the growth of volcanic domes: *Jour. Volcanol. Geotherm. Res.*, v. 17, p. 111-131.

Aguila, L.G., Newhall, C.G., Miller, C.D., Listanco, E.L., 1986, Reconnaissance geology of a large debris avalanche from Iriga Volcano, Philippines. *Phil. Jour. Volcanology*, v. 3:1, p. 54-72.

Swanson, D.A., Casadevall, T.J., Dzurisin, D., Malone, S.D., Newhall, C.G., and Weaver, C.S., 1983, Predicting eruptions at Mount St. Helens, June 1980 through December 1982: *Science*, v. 221, p. 1369-1376.

Newhall, C.G., 1983, Cooke-Ravian Volume of Volcanological Papers (review): *Eos, Transactions, American Geophysical Union*, v. 64, p. 452.

Newhall, C.G., Decker, R.W., Sudradjat, A., Tilling, R.I., and Peterson, D.W., 1983, A comparison of eruptions and magma reservoirs at Krakatau, Mount St. Helens, and Galunggung, in Proceedings, Symposium of 100 Years Development of Krakatau and its Surroundings; Jakarta, August 1983, v. 1, p. 11-19.

Crandell, D.R., Miller, C.D., Glicken, H.X., Christiansen, R.L., and Newhall, C.G., 1984, Catastrophic debris avalanche from ancestral Mount Shasta volcano, California: *Geology*, v. 12, p. 143-146. (Discussion and reply, *Geology*, v. 13:1 p. 79-80)

Swanson, D.A., Casadevall, T.J., Dzurisin, D., Newhall, C.G., Malone, S.D., and Weaver, C.S., 1984, Forecasts and predictions of eruptions at Mount St. Helens, U.S.A.: 1975-1983: *International Geological Congr., Moscow, Colloquium 6, Earthquakes and geological hazard prediction, Reports*, v. 6, p. 119-135.

(Similar paper as "Forecasts and Predictions of eruptive activity at Mount St. Helens, U.S.A.: 1975 -1984: *Journal of Geodynamics*, v. 3, p. 397-423, 1985)

Pena, O. and Newhall, C.G., 1984, Cartographic representation of volcanic hazards: Philippines, in Crandell, D.R., Booth, B., Kusumadinata, K., Shimosuru, D., Walker, G.P.L., and Westercamp, D., *Source-book for Volcanic Hazards Zonation: Paris, UNESCO*, p. 65-67.

Newhall, C.G., 1984, Semiquantitative assessment of changing volcanic risk at Mount St. Helens, Washington: U.S. Geological Survey Open-File Rept 84-272, 29 p.

Newhall, C.G., Dzurisin, D., and Mullineaux, L.S., 1984, Historical unrest at large Quaternary calderas of the world, with special reference to Long Valley, California: U.S. Geological Survey Open-File Report 84-939, v. 2, p. 714-742.

Dzurisin, D. and Newhall, C.G., 1984, Recent ground deformation and seismicity at Long Valley (California), Yellowstone (Wyoming), the Phlegraean Fields (Italy), and Rabaul (Papua New Guinea): U.S. Geological Survey Open-File Report 84-939, v. 2, p. 784-829.

Newhall, C.G., 1984, Short-term forecasting of volcanic hazards (lecture notes for Geologic Hazards Training Program): U.S. Geological Survey Open-File Report 84-760, p. 507-592. Poppe, L.J., Paull, C.K., Bradbury, J.P., Newhall, C.G., and Ziagos, J., 1985, A geophysical and geological study of Laguna de Ayarza, a Guatemalan caldera lake: *Journal of Volcanology and Geothermal Research*, v. 25, p. 125-144.

Ramos-Villarta, S., Corpuz, E., and Newhall, C.G., 1985, Eruptive history of Mayon Volcano, Philippines: *Philippine Journal of Volcanology*, v. 2:1-2, p. 1-35.

Newhall, C.G. and Fruchter, J.S., 1986, Volcanic activity: a review for Health Professionals: *American Journal of Public Health*, v. 76, Supplement, p. 10-24.

Wolfe, E.W., Ulrich, G.E., Holm, R.F., Moore, R.B., and Newhall, C.G., 1987, Geologic map of the central part of the San Francisco Volcanic Field, Arizona: U.S. Geological Survey MF-1959, 2 map sheets, 1:50,000, and 86 p. explan. text.

Newhall, C.G., 1987, Geology of the Lake Atitlán region, western Guatemala: *Jour. Volcanol. Geotherm. Res.*, v. 33, p. 23-55.

Newhall, C.G., Paull, C., Bradbury, J.P., Higuera-Gundy, A., Poppe, L.J., Self, S., Sharpless, N.B., and Ziagos, J., 1987, Recent geologic history of Lake Atitlán, a caldera lake in western Guatemala: *Jour. Volcanol. Geotherm. Res.*, v. 33, p. 81-107.

Rose, W.I., Newhall, C.G., Bornhorst, T.J., and Self, S., 1987, Quaternary silicic pyroclastic deposits of Atitlán Caldera, Guatemala: *Journal of Volcanology and Geothermal Research*, v. 33, p. 57-80.

Wolfe, E.W., Ulrich, G.E., and Newhall, C.G., 1987, Geologic map of the northwest part of the San Francisco Volcanic Field, Arizona: U.S. Geological Survey MF-1957, scale 1:50,000, 2 sheets with text and tables.

Newhall, C.G., Ulrich, G.E., and Wolfe, E.W., 1987, Geologic map of the southwest part of the San Francisco Volcanic Field, Arizona, with chemical analyses, magnetic polarities, and sample localities: U.S. Geological Survey MF-1958, scale 1:50,000, 2 sheets + 58 pp. text and tables.

Newhall, C.G., 1987, Final Report: Consulting Services on Geologic Mapping and Volcanic Hazards Mitigation: Report to the Volcanological Survey of Indonesia and the Asian Development Bank. 115 p. + 99 p. of map reviews.

Tilling, R.I. and Newhall, C.G., 1987, Volcanology. *Geotimes*, v. 32:2, p. 59-61.

Newhall, C.G., 1987, Late Cenozoic Volcanism of New Zealand (book review): *Geology*, v. 15:10, p. 984.

Newhall, C.G., and Tuttle, M.L., 1988, Volcanic, earthquake, and lake gas hazards of the Lake Kivu and Virunga Mountains area, Rwanda-Zaire-Uganda. Administrative report for USAID/OFDA, 33 p.

Newhall, C.G., and Dzurisin, D., 1988, ***Historical unrest at large calderas of the world***: U.S. Geol. Surv. Bulletin 1855, 2 volumes, 1108 p.

Major, J.J., and Newhall, C.G., 1989, Snow and ice perturbation during historical volcanic eruptions and the formation of lahars and floods: a global review: *Bulletin of Volcanology*, v. 52, no. 1, p. 1-27.

IAVCEI Task Group for the IDNDR (F. Barberi, R. Blong, S. de la Cruz, M. Hall, K. Kamo, P. Mothes, C. Newhall, D. Peterson, R. Punongbayan, G. Sigvaldason, N. Zana), 1990, Reducing Volcanic Disasters in the 1990's: *Bulletin, Volcanological Society of Japan*, ser. 2, v. 35, no. 1, p. 80-95.

- Newhall, C.G., Sharp, R.V., Wieczorek, G.F., Wennerberg, L., and Bicknell, J., 1990, The July 16, 1990, Luzon earthquake: unpubl. report, U.S. Geol. Survey, 59 p.
- Krafft, M., Brantley, S., and Newhall, C.G., 1990, Understanding Volcanic Hazards: IAVCEI-UNESCO Video source-tape on volcanic hazards (part I), 22 min
- Simkin, T. and Newhall, C., 1990, Volcanic Hazards, in Lockwood, M., Elms, J.D., Lockridge, P.A., Moore, G.W., Nishenko, S.P., Simkin, T., and Newhall, C., 1990, Natural hazards map of the Circum-Pacific region, Pacific Basin sheet: U.S. Geol. Survey, Map CP-35, 1:17,000,000, 1 sheet plus explanatory text, p. 26-31.
- Pinatubo Volcano Observatory Team, 1991, Lessons from a major eruption: Mt. Pinatubo, Philippines: Eos, Transactions, American Geophysical Union, v. 72, no. 49, p. 545 ff.
- Ewert, J.W., and Newhall, C.G., 1992, The 1991 eruption of Mount Pinatubo Volcano, in U.S. Geological Survey Yearbook for 1992, p. 81-85.
- Wieczorek, G.F., Newhall, C.G., and Wennerberg, L.G., 1992, Faulting, structural damage, liquefaction, and landslides from the Luzon, Philippines earthquake of July 16, 1990: Slide set and bibliography: U.S. Geological Survey, Open-File Report 92-367A, 10 p.
- Newhall, C., 1992, Apo Namalyari, l'Esprit du volcan, in Krafft, K. and Krafft, M., Le Feu de la Terre: Paris, Éditions de La Martinière, p. 122-125.
- Punongbayan, R.S., Umbal, J., Torres, R., Daag, A.S., Solidum, R., Delos Reyes, P., Rodolfo, K.S., and Newhall, C.G., 1992, A technical primer on Pinatubo lahars: PHIVOLCS, Quezon City, 21 p.
- Punongbayan, R.S., Umbal, J., Torres, R., Daag, A.S., Solidum, R., Delos Reyes, P., Rodolfo, K.S., and Newhall, C.G., 1992, Three scenarios for 1992 lahars of Pinatubo Volcano: PHIVOLCS, Quezon City, 14 p.
- Punongbayan, R.S., Newhall, C.G., and Listanco, E.L., 1991, Brief notes on the 1990-1991 Pinatubo Volcano events and corresponding scientific responses: Bull. Volcanological Society of Japan, v. 37, no. 1, p. 55-59.
- Punongbayan, R.S., Sincioco, J., and Newhall, C.G., 1993, Pinatubo Volcano Observatory: WOVO News, no. 1, p. 9-11.
- Newhall, C.G., 1993, Mayon Volcano, February 2, 1993 - March 18, 1993: U.S. Geological Survey Administrative report, 24 p.
- Newhall, C.G., Punongbayan, R.S., and Gerlach, T.M., 1994, Tight and leaky volcanoes: Implications for forecasting explosive eruptions: Atti dei Convegna Lincei, v. 112, p. 13-21.
- Newhall, Christopher G. and Tsumura, Kenshiro (eds.), 1993, Proceedings of the workshop on Volcanic Disaster Prevention under Japan-US Science and Technology Agreement, Palo Alto, California, 362 p. (focus on long-period earthquakes and collapse of volcanic domes)
- IAVCEI Subcommittee for Decade Volcanoes, 1994, Research at Decade volcanoes aimed at disaster prevention: EOS, July 26, 1994, p. 340, 350.
- Newhall, C.G., for the PHIVOLCS/USGS Pinatubo team, 1994, Serious but rapidly declining hazards at Mount Pinatubo: Report of progress under USGS/OFDA PASA, 59 p in summary report; 14 attachments of pertinent papers from the Pinatubo monograph.
- Newhall, Chris, and Punongbayan, Ray, 1995, Pinatubo: Chronique d'un cataclysme annoncé: La Recherche, v. 26, no. 274, p. 310-314.
(also as Pinatubo: Crónica de un cataclismo anunciado: Mundo Científico, v. 15, no. 157, p. 470-473, and abbreviated version in Bulletin of Volcanic Eruptions, no. 32, p. 147-152, supplement to Bulletin of Volcanology, v. 57, 1995-1996)

Newhall, C.G., Hendley, J.W. II, and Stauffer, P.H., 1996, The cataclysmic 1991 eruption of Mount Pinatubo, Philippines: U.S. Geological Survey Fact Sheet 0113-97, 2 p. (<http://geopubs.wr.usgs.gov/fact-sheet/fs113-97/>)

Newhall, C.G., Stauffer, P.H., and Hendley, J.W. II, 1996, Lahars of Mount Pinatubo, Philippines: U.S. Geological Survey Fact Sheet 0114-97, 2 p. (<http://geopubs.wr.usgs.gov/fact-sheet/fs114-97/>)

Newhall, C.G., Hendley, J.W., and Stauffer, P.H., 1996, Costs and benefits of volcanic eruption forecasting: An example from Mount Pinatubo, Philippines: U.S. Geological Survey Fact Sheet 0115-97, 2 p. (<http://geopubs.wr.usgs.gov/fact-sheet/fs115-97/>)

Newhall, C.G., and Punongbayan, R.S., eds., 1996, **Fire and mud: Eruptions and lahars of Mount Pinatubo, Philippines**: Quezon City, Philippine Institute of Volcanology and Seismology, and Seattle, University of Washington Press, 1126 p, including the following 8 papers:

Newhall, C.G., Daag, A.S., Delfin, F.G., Jr., Hoblitt, R.P., McGeehin, J., Pallister, J., Rubin, M., Tamayo, R.A., Jr., Tubianosa, B., and Umbal, J.V., Eruptive history of Mount Pinatubo, in Newhall and Punongbayan, eds., *Fire and Mud*, p. 165-195.

Daag, A.S., Tubianosa, B.S., Newhall, C.G., Tungol, N.M., Javier, D., Dolan, M.T., Delos Reyes, P.J., Arboleda, R.A., Martinez, M.L., and Regalado, M.T.M., Monitoring sulfur dioxide emission at Mount Pinatubo, in Newhall and Punongbayan, eds., *Fire and Mud*, p. 409-414.

Punongbayan, R.S., Bautista, M.L.P., Harlow, D.H., Newhall, C.G., and Hoblitt, R.P., Pre-eruption hazard assessments and warnings, in Newhall and Punongbayan, eds., *Fire and Mud*, p. 67-85.

Punongbayan, R.S., Newhall, C.G., and Hoblitt, R.P., Photographic documentation of rapid geomorphic change at Mount Pinatubo, 1991-94, in Newhall and Punongbayan, eds., *Fire and Mud*, p. 21-66.

Jones, J.W., and Newhall, C.G., Preeruption and posteruption digital-terrain models of Mount Pinatubo, Philippines, in Newhall and Punongbayan, eds., *Fire and Mud*, p. 571-582.

Daag, A.S., Dolan, M.T., Meeker, G., Newhall, C.G., Pallister, J.S., and Solidum, R., Growth of a post-climactic lava dome at Mount Pinatubo, July-October 1992, in Newhall and Punongbayan, eds., *Fire and Mud*, p. 647-664.

David, C.P.C., Dulce, R.G., Nolasco-Javier, D.D., Zamoras, L.R., Jumawan, F.T., and Newhall, C.G., Changing proportions of two pumice types from the June 15, 1991, eruption of Mount Pinatubo, in Newhall and Punongbayan, eds., *Fire and Mud*, p. 681-685.

Janda, R.J., Daag, A.S., Delos Reyes, P.J., Newhall, C.G., Pierson, T.C., Punongbayan, R.S., Rodolfo, K.S., and Umbal, J.V., Assessment and response to lahar hazard at Mount Pinatubo, in Newhall and Punongbayan, eds., *Fire and Mud*, p. 107-139.

Newhall, C.G., and Punongbayan, R.S., 1996, The narrow margin of successful volcanic-risk mitigation, in Scarpa, R., and Tilling, R.I., eds., *Monitoring and Mitigation of Volcanic Hazards*: Springer-Verlag, Berlin, p. 807-838.

Brantley, S.R., and Newhall, C.G., 1996, *Reducing Volcanic Risk: IAVCEI-UNESCO video source-tape on how to minimize volcanic risks*, 24 min. (part II of IAVCEI set)

Delfin, F.G. Jr., Newhall, C.G., Martinez, M.L., Salonga, N.D., Bayon, F.E.B., Trimble, D., Solidum, R., 1997, Geological, ¹⁴C, and historical evidence for a 17th century eruption of Parker Volcano, Mindanao, Philippines. *Jour Geol. Soc. Philippines*, v. 52, p. 25-42.

(see also: Delfin, F.G. Jr., Newhall, C.G., Martinez, M.L., Trimble, D., Salonga, N.D., Bayon, F.E.B., and Solidum, R.U., 1998, Formation of a caldera ~300 ybp at Mt. Parker, southern Philippines: Radiometric and historical evidence. *Manuscripts Volume*, 11th Annual

Convention, Geol. Soc. Philippines, December 1998, p. 61-69. (a slightly modified, corrected version of the previous paper)

IAVCEI Subcommittee for Crisis Protocols (C. Newhall (leader), S. Aramaki, F. Barberi, R. Blong, M. Calvache, J.-L. Cheminee, R. Punongbayan, C. Siebe, T. Simkin, S. Sparks, and W. Tjetjep), 1999, Professional conduct of scientists during volcanic crises. *Bull. Volcanol.*, v. 60, p. 323-334.

Newhall, C.G., 2000, Reducing uncertainties of eruption forecasts. In, *Dealing with Natural Disasters*, Royal Society, London, p. 14-26. Also at: <http://www.royalsoc.ac.uk/policy/IDNDR/newhall.pdf>

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Newhall, C.G., 2000, Mount St. Helens, Master Teacher: *Science*, v. 288, p. 1181-1182.

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S. Bonis (ed.), 2000, Mapa Geológico de Guatemala, Sololá 1:50,000 sheet 1960 II, Instituto Geografico Nacional, Guatemala. (Most of the mapping is mine, submitted 1980-81)

Newhall, C.G., Albano, S.E., Matsumoto, N. and Sandoval, T., 2001. Roles of groundwater in volcanic unrest: *J. Geol. Soc. Phil.*, v. 56, p. 69-84.

Newhall, C.G., Power, J.A., and Punongbayan, R.S., 2002, Pinatubo: "to make grow:" *Science*, v. 295, p. 1241-1242.

Hayes S.K., Montgomery D.R., Newhall C.G., 2002, Fluvial sediment transport and deposition following the 1991 eruption of Mount Pinatubo, *Geomorphology*, v. 45, p. 211-224.

Newhall, C.G., Hoblitt, R.P., 2002, Constructing event trees for volcanic crises: *Bull. Volcanol.*, v. 64, p. 3-20

Hill, D.P., Pollitz, F., Newhall, C., 2002, Earthquake-volcano interactions: *Physics Today*, v. 55:11, p. 41-47.

Komorowski, J.C., Tedesco, D., Kasereka, M., Allard, P., Papale, P., Vaselli, O., Durieux, J., Baxter, P., Halbwachs, M., Akumbe, M., Baluku, B., Briole, P., Ciraba, M., Dupin, J.-C., Etou, O., Garcin, D., Hamaguchi, H., Houlié, N., Kavotha, K.S., Lemarchand, A., Lockwood, J., Lukaya, N., Mavonga, G., de Michele, M., Mpore, S., Mukambilwa, K., Munyololo, F., Newhall, C., Ruch, J., Yalire, M., Wafula, M., 2002-2003, The January 2002 flank eruption of Nyiragongo volcano (Democratic Republic of Congo): chronology, evidence for a tectonic rift trigger, and impact of lava flows on the city of Goma. *Acta Vulcanologica*, v. 14-15, p. 27-61.

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