Biographies of Participants

Paula Acethorpe is the manager of VAAC Wellington as well as the manager of Aviation Weather Services at MetService, New Zealand, where she has been in this role for about 5 months. Prior to this, Paula was an operational meteorologist at the MetService for 10 years. She is currently involved in the roll out of IBL's Visual Weather across the Aviation Weather Services forecasting section and in the set up

Miriam Andrioli graduated in Meteorology at the Univ. of Buenos Aires, Argentina, and joined the National Meteorological Service shortly afterwards. Positions: Chief Marine Meteorology Div.; deputy Chief Int´l Affairs Dept.; Chief Public Relations and Comm Media Dept. As operational aeronautical and Antarctic meteorologist, she has been responsible for the MET support to the Argentine Air Force Logistic Flights to Antarctica and completed an Antarctic Summer Campaign with the Argentine Navy whilst inspecting Antarctic MET stations. She was MET advisor to the President of Argentina for a four year period. International activities: Instructor at NOAA U.S. NWS´s South American Desk; WMO/IOC-UNESCO- President JCOMM Capacity Building (CB) Group; JCOMM CB Programme Area Coordinator; Rapporteur on WMO RA III Marine Meteorology Services; Focal Point for Argentina at WMO Women issues in Meteorology, Hydrology and related Scs. Group. ICAO-Member of Argentina on the IAVWOPSG and representative of VAAC Buenos Aires since 2008. MET advisor for the VA Contingency Plan for ICAO South American Region. She is also a weather journalist, presenter and producer at a leading TV/radio national network in Argentina.

Sara Barsotti works at the Icelandic Meteorological Office as Coordinator for volcanic hazards and leads the Icelandic Volcano Observatory. She obtained her Ph.D. in "Numerical modelling for the environmental protection" in 2006 after a Ms.D. in Physics at University of Pisa (2002). In the period 2006-2013 she worked as Researcher on contract at Istituto Nazionale di Geofisica e Vulcanologia (INGV), Sezione di Pisa (Italy). Her research topics mostly involve Eulerian-Lagrangian modelling and numerical simulation of explosive volcanic phenomena. In particular, she works on the dynamics of tephra dispersal processes and ash fall-out as well as aerial ash cloud transport and implications for aviation safety. SB applied her

Adele Bear-Crozier undertook a PhD in Volcanology between Monash University and Universita di Roma Tre on the eruption dynamics of caldera-forming (super) eruptions before joining Geoscience Australia in 2009. As a physical volcanologist at GA, Adele has led volcanic hazard and risk programs for the Asia-Pacific in ash dispersion modelling. Adele has worked predominantly with partner volcanological technical agencies in Indonesia, the Philippines and PNG. Adele recently transferred to the BoM in Melbourne for a secondment with the Darwin VAAC and will focus on taking recent advancements

Dov Bensimon has been working as an operational meteorologist with the Environmental Emergency Response Section (EERS) of the Meteorological Service of Canada since September 2009. He has been the manager of the Montréal Volcanic Ash Advisory Centre (VAAC) since November 2013. Mr. Bensimon holds a Bachelor of Science degree in Meteorology and a Master of Science in Atmospheric and Oceanic Sciences, both from McGill University. He began his meteorological career as a weather forecaster at the Weather Network and then joined Environment Canada as an aviation forecaster. He then worked for the Implementation and Operational Services section of the Canadian Meteorological Centre (CMC), followed by several years as an operational meteorologist in the Analysis and Prognosis section at CMC, just before joining EERS.

Simon A. Carn is a volcanologist by training and Associate Professor in the Department of Geological and Mining Engineering and Sciences at Michigan Technological University in Houghton, MI. He received a BA in geology from Oxford University (UK) in 1993, a MSc in volcanology from l'Université Blaise Pascal, Clermont-Ferrand (France), in 1994, and a PhD in volcanology from the University of Cambridge (UK) in 1999. After his PhD, he worked as a volcanologist on Montserrat (West Indies), followed by a postdoctoral appointment at the University of Maryland Baltimore County (UMBC) in collaboration with NASA Goddard Space Flight Center. Simon's main research focus is satellite remote sensing of volcanic SO2 and ash emissions using ultraviolet (UV) and infrared (IR) sensors.

Thomas Casadevall is a Scientist Emeritus with the U.S. Geological Survey in Denver, Colorado. His scientific interests focus on active volcanism and the related hazards to people and aviation operations, and on geologic heritage with an emphasis on Protected Volcanic Landscapes. From 1996 through 2008, Tom served in the Office of the Director, USGS. From 1978 to 1996, he worked as a geologist with the USGS Volcano Hazards Program, stationed at the Hawaiian Volcano Observatory, the Cascades Volcano Observatory, and in Denver, Colorado. From 1985 through 1988 he was Advisory Volcanologist to the Volcanological Survey of Indonesia and resided in Java, Indonesia. He holds a Ph.D. (1976) in Geochemistry from the Pennsylvania State University.

Carsten Christmann is a research scientist at German Aerospace Center (DLR) working in the Department of Flight Dynamics and Simulation within the Institute of Flight Systems in Braunschweig, Germany. His research on volcanic ash impact on aircraft focuses on the analysis of encounters of aircraft with volcanic ash clouds and on the investigation of the resulting effects on aircraft systems like air data, navigation and communication systems. He is also an expert in flight mechanical evaluation of fixed-wing aircraft. In addition, he is a recognized design engineer in flight testing and structures for DLR research aircraft. Prior to joining DLR in 2005, he received his Diploma degree in aerospace engineering the Technical University of Braunschweig, Germany.

Rory Clarkson studied geology at the university for one year before switching to a career in engineering. He completed a Bachelor's and a PhD in mechanical engineering, the latter researching the performance of catalytic converters for Jaguar Cars. After periods in the nuclear and commercial CFD industry, he joined Rolls-Royce in 1997 to help design aircraft gas turbine engines. Having spent time working on turbines, combustors and compressors, from the end of 2010, Rory has led the team responsible for ensuring Rolls-Royce engines can operate acceptably in the extremes of environment they are likely to encounter.

Estela Angela Collini, Doctor in Atmospheric Sciences, 2009, University of Buenos Aires, Argentina. MSc in Meteorology; 1991 University of Utah. Director of Projects focused on NWP modeling, at Naval Hydrographic Service/National Meteorological Service, Argentina. Current areas of interest: Volcanic ash dispersion, transport and deposition forecast modeling, Studies on the Soil Moisture variability impacts on regional forecasts, NWP models verification, and NWP data assimilation.

Stefano Corradini has a degree in Physics and a PhD in Geophysics. From 2007, he has been a researcher at the National Institute of Geophysics and Volcanology (INGV) in Rome. He's a specialist in the physics of atmospheric remote sensing. His experience has been focused mostly on developing and implementing algorithms on atmospheric and volcanic aerosols and gases, surface temperature and emissivity, by using satellite and ground-based instruments. In the last few years, his main activity has been focused on the use of multispectral geostationary and polar satellite measurements in the thermal infrared spectral range for detection and retrievals of volcanic ash and SO2.

Alice Crawford began working at the NOAA Air Resources Laboratory in February 2014. Her research focuses on modeling the transport and dispersion of volcanic ash using the HYSPLIT model. She received her PhD in physics in 2004 from Cornell University. Her thesis work involved particle tracking in a fully developed turbulent flow. She also worked as a postdoc at the National Institute of Standards.

Cory Davis is the senior modelling scientist at MetService. Recent work includes the implementation of a HYSPLIT-based volcanic ash dispersion modelling system for Wellington VAAC, ash fall forecasting with GNS Science, and the implementation of high resolution NWP models. Cory is a member of the WMO-CAeM Expert Team for Aviation, Science and Climate, and the New Zealand Volcanic Science Advisory Panel. He also has an interest in satellite-based remote sensing, and was a member of the NASA Aura Microwave Limb Sounder Science Team, specializing in radiative transfer in cloudy cases and the remote sensing of cloud ice. Cory earned a PhD in Physics at the University of Otago.

Roger P. Denlinger is a geophysicist with the US Geological Survey, and is stationed at the Cascades Volcano Observatory in Vancouver, Washington. He has been doing research on active volcanoes and on volcanic processes since 1981, as well as addressing diverse problems in geophysics, heat flow, fluid flow, seismic wave propagation, and routing of floods and debris flows. He was a visiting professor at L'Ecole Polytechnique Federale de Lausanne (2004-2009), and has also worked on tsunami hazards with the National Institute of Water and Atmosphere in New Zealand. One of his current research efforts is in pattern recognition and machine learning applied to forecasting of volcanic ash clouds. Before joining the US Geological Survey, Roger earned degrees in Physics and Geology, and did graduate work in Petroleum Engineering before obtaining a PhD in Geophysics from Stanford University.

Dirk Engelbart holds a diploma in Meteorology and a PhD in Physics from the Univers sity of Hannover, where he also started his career as a scientist and later head of "Experimental Antarctic Research." He has been an active participant to several Antarctic expeditions. Before joining the German Federal Ministry of Transportation in 2009, he was head of "Ground-based Remote Sensing" and a deputy head of Germany's Observatory for Physics of the Atmosphere at Lindenberg. Until 2009, he was also the Chair of the WMO expert team on "Remote sensing technology and techniques". Dirk now works as the deputy director for meteorology, climatology, earth observation, aviation and aerospace, and oversees the supervision of the German met service.

Tom Fahey is the Manager, Meteorology Operations, at Delta Air Lines in Atlanta, GA. He is responsible for leading aviation weather forecast teams. His focus has consistently been in 3 areas: avoiding En Route Weather Hazard including turbulence, mountain wave activity, volcanic ash, etc.; developing strategies to access weather's impact on air traffic capacity & airline management of hub airport operations effected by major weather events; and sales and marketing of weather products and services. During the eruption from Eyjafjallajokull, he coordinated with SkyTeam member airlines, KLM, and European Authorities to safely restart operations. He then represented the International Air Transport Association on ICAO's Int'l Volcanic Ash Task Force, which among other accomplishments, clarified airlines' role & responsibility dealing with ash hazards (2010-2012).

David Fee is a Research Associate Professor at the Geophysical Institute of the University of Alaska Fairbanks (UAF). He is also a member of the Alaska Volcano Observatory and Wilson Alaska Technical Center. His research interests are in volcano infrasound and infrasound signal detection and classification. In particular, he works on using infrasound to detect and quantify volcanic eruptions, and integrating infrasound with other datasets. Before joining UAF, David got his Ph.D. from the University of Hawaii at Manoa and M.S. in seismology from the University of Wyoming.

Arnau Folch is a senior researcher at the Computer Applications Department of the Barcelona Supercomputing Center (BSC; www.bsc.es), where he leads the Environmental Simulations Group. His research topics include physical volcanology, atmospheric dispersal and meso- and micro-scale meteorological modelling. He co-developed and maintains the tephra dispersal model FALL3D. He is a member of the Volcanic Ash Scientific Advisory Group (VASAG). Since 2011, he also acts as the liaison officer between the International Union of Geophysics and Geodesy (IUGG) and the World Meteorological Organization (WMO) and leads the Commission on Tephra Hazard Modelling of the International Association of Volcanology and Chemistry of the Earth's Interior (IAVCEI).

Peter Francis has worked in the UK Met Office's Satellite Applications group since 2001, carrying out research aimed at improving satellite imagery products and their interpretation. Before this, he spent 10 years working at the Met Office's Meteorological Research Flight facility, where he carried out research into the radiative properties of clouds and aerosols, primarily based on in situ measurements taken from the Met Office's C-130 research aircraft. Before joining the Met Office, Pete gained a DPhil at Oxford University, using aircraft data to study the radiative properties of clouds. As an undergraduate Pete received a degree in Physics, also from Oxford University.

Kaspar Graf is a research scientist at DLR in the "Atmospheric Remote Sensing" department of the Institute of Atmospheric Physics. He gained his PhD in 2013 and was responsible for monitoring volcanic ash plumes and for online measurement flight guidance of the FALCON aircraft during the Eyjafjallajökull volcanic eruptions in 2010. While the topic of his PhD thesis was the Climate Impact of Contrails and Cirrus Clouds, he also gained broad experience in the field of remote sensing of volcanic ash with MSG-SEVIRI. Since 2014, he is responsible for the development of a remote sensing algorithm of volcanic ash in the DLR project "VolcATS" and is PI in related third-party projects.

Marianne Guffanti is a geologist with the U.S. Geological Survey, stationed at USGS headquarters in Virginia, near Washington, D.C. Her areas of expertise include volcanic-ash hazards to aviation, geothermal resources, and the volcano-tectonic framework of the Cascade Range. From 1996 to 2001, she was Coordinator of the USGS Volcano Hazards Program, which operates the 5 regional U.S. Volcano Observatories, and she was a key member of the team that developed the US National Volcano Early Warning initiative in 2005. For over a decade, she has led USGS activities related to volcanic hazards to aviation at the national and international levels, serving as a volcanological advisor to the Federal Aviation Administration and International Civil Aviation Organization. From 2005 to 2015, she represented the IUGG on ICAO's International Airways Volcano Watch Operations Group and since 2010 is a member of WMO's Volcanic Ash Scientific Advisory Group. From 2010 to 2012, she served as Science Project Manager on ICAO's International Volcanic Ash Task Force, formed in response to the aviation disruptions caused by the 2010 eruption of Eyjafjallajokull. Currently, she is Chief of the Ash Hazards Impacts and Mitigation Project at the USGS.

Charles W. Haldeman, P&W System Engineering Validation -Fellow of Test Instrumentation and Method Development. Dr. Haldeman is currently in the Advanced Measurements Group at Pratt & Whitney, a United Technologies Corp. (UTC) company. In his role he focuses on validation of design methodology and predictive tools using a wide variety of experimental resources. He has been involved with volcanic ash/engine interactions in the NASA VIPR program and in ingestion work while at Calspan Corporation earlier in his career. His other research has focused on full scale rotating rigs obtaining aeroperformance, aerothermal and structural measurements in short-duration turbine facilities.

Matthew M. Haney completed a B.Sc. (1999) in Geophysical Engineering and a Ph.D. (2005) in Geophysics at Colorado School of Mines in Golden, CO. After he completed his Ph.D., he worked as a postdoctoral appointee in the Geophysics Department at Sandia National Laboratories in Albuquerque, NM, and as a USGS Mendenhall Postdoctoral Fellow at the Alaska Volcano Observatory in Anchorage, AK. From 2009-2011, he was an Assistant Professor at Boise State University. Since 2011, Matt has been a Research Geophysicist with the USGS at the Alaska Volcano Observatory in Anchorage, AK. His research interests include volcano seismology, surface wave inversion, ambient noise interferometry, array methods, and infrasound. Haney is a member of the AGU, SEG, and SSA.

Yuta Hayashi belongs to the System Engineering Division, Data Processing Department, Meteorological Satellite Center (MSC), Japan Meteorological Agency (JMA) from April 2015. He is in charge of volcanic ash products for Japanese new-generation geostatinonary meteorological satellite, Himawari-8. Prior to joining MSC, he had worked in the Numerical Prediction Division and the Volcanological Division of JMA for two years each. During his career with these divisions, he has experience in developing variational data assimilation in regional numerical weather prediction systems, and operating volcanic ash-fall forecast for domestic active volcanoes.

Matthew Hort has worked for the UK Met Office for 15 years. During this time, he has conducted, lead, and published research on atmospheric dispersion and composition modelling covering scales from urban (CBRN) to global (Volcanic, RN). As Head of Atmospheric Dispersion and Air Quality at the Met Office he leads and coordinates Met Office research in these areas with a focus on linking atmospheric sciences to societal and environmental impacts. Matthew has and continues to serve on a number of national and international bodies. As Met Office science lead for several national and international emergency events he has extensive experience of cross agency and cross disciplinary and operational focused science.

Philippe Husson is the head of the operations division in the central aviation forecast department of Meteo-France (DSM/AERO/PREVI/D). He has been involved in the International Airways Volcano Watch and has managed the Volcanic Ash Advisory Center Toulouse since the end of last century. He is an engineer and meteorologist and has worked in weather forecasting from remote Kerguelen Islands to La Reunion (there, as a tropical cyclone forecaster), before getting back to the Meteopole in Toulouse, where he has been working in the field of aviation weather since 1994.

Yohko Igarashi is a Scientific Officer in the Japan Meteorological Agency and has been working as the representative of the Volcanic Ash Advisory Center (VAAC) Tokyo since April 2014. She is engaged in the planning, processing and executing improvements of VAAC Tokyo's operations to be more user-friendly. With this aim, she has been developing the coordination in operations between other VAACs, especially the neighboring VAACs, as well as serving as a contact in VAAC Tokyo for information sharing and/or coordination with volcano observatories in the area of responsibility, the Japan Civil Aviation Bureau and airlines. These activities are undertaken both in real operations and the Volcanic Ash Exercises in Kamchatka and Asia/Pacific Region.

Captain **John Johnson** graduated from Oregon State University in Corvallis, OR in 1979 with a B.S. in Geology and was attending Graduate school there when a job opening became available with Gulf Oil Corporation. He was assigned to the Oklahoma City office and was working as an Exploration Geologist utilizing geological and geophysical data to generate potential hydrocarbon deposits in the Anadarko Basin. He attended numerous training classes on geophysical exploration techniques to enhance interpretation skills for oil and gas deposits. He also worked for Texas International Exploration Corporation and Moran Drilling Corporation.
In 1983 during a massive slump in the petroleum industry, he relocated to Anchorage, Alaska to start a new career as a commercial pilot for a regional airline flying people and cargo to various destinations in Alaska in bush planes. Over the next 4 years, he slowly gained the experience to move up to larger and more complex aircraft hauling both people and cargo throughout Alaska. In June 1987, he was hired by the Flying Tigers Line as a DC-8-73 First Officer and later flew the B-747-100/200 as a Flight Engineer and First Officer. In 1989, Federal Express purchased Flying Tigers, and since then, he has flown the MD-11, A-300, DC-10, B-777, B757. He is currently a Captain on the B-767-300 based in Hong Kong. Seven years ago, the FedEx pilots union, which is represented by the Airline Pilots Association (ALPA), requested a volunteer to work with the USGS Alaska Volcano Observatory in Anchorage to participate, study, and evaluate to impact of operating Transport Category Jet aircraft in volcanic ash environments. Since then he has strived to refocus his geological expertise towards volcanology and the direct and indirect impact on airline operations worldwide.

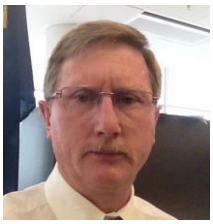
Sigrún Karlsdóttir has worked at the Icelandic Meteorological Office (IMO) since 2000. Until 2004, she worked as a forecaster, and from 2004 to 2008, as the leader of the forecasting division. Since 2009, she is the director of natural hazards and coordinator of projects on risk assessments of natural hazards ,e.g. avalanche, volcanoes, floods and storm surge conducted by the IMO on behalf of the Icelandic government. Dr. Karlsdóttir is coordinator of national and international partnerships in relation to natural hazards, with several years of experience, including high impact events such as the eruption of Eyjafjallajökull in 2010, Grímsvötn in 2011, and Bárðarbunga/Holuhraun in 2014-2015.

Doug Kihm has over 36 years of experience in aviation with expertise in transport category aircraft design certification, Extended Range Operations (ETOPS) and safety management systems. He is a technical representative for Boeing and International Coordinating Council of Aerospace Industries Association (ICCAIA) to several regulatory standards development groups including ICAO's Safety Management Panel, Airworthiness Panel and Operations Panel, Extended Diversion Time Operations Task Force, Volcanic Ash Task Force and FAA's Safety Management System Aviation Rulemaking Committee. Doug Kihm authored Boeing's AERO magazine article "Safe, efficient flight operations in regions of volcanic activity", 2011. Doug Kihm previously managed the certification of the 737 Next-Generation and the 767-400ER. He has also been an FAA Designated Engineering Representative (DER)/Airworthiness Representative (AR) for ETOPS and has been involved in the ETOPS certification of the 737, 747, 757, 767, 777 and 787. He has a B.S. and M.S. in Mechanical Engineering, Virginia Tech.

Nina Kristiansen is a scientist at the Norwegian Institute for Air Research, NILU. She has worked on modelling of volcanic eruption clouds since 2008, and obtained her PhD in 2012. Her expertise is on inverse modelling tools, which use satellite observations to constrain the modelled eruption clouds. She has 17 peer reviewed papers on volcanic eruptions since 2010, and was during the recent Icelandic eruptions part of the Norwegian Evaluation group on Volcanic Ash. She also has experience from the U.K. Met Office from a three months exchange in 2010, working with the NAME model. Other research interests are aerosols in general, and their impact on climate. Since 2012 she lives in the U.K and Norway.

Ulrich Kueppers is a physical and experimental volcanologist at the Department of Earth and Environmental Sciences of the Ludwig-Maximilians-Universität (LMU) in Munich, Germany. His research interest is focused around the processes of magma fragmentation and volcanic ash generation during explosive volcanic eruptions and the related impact on eruption and pyroclast transport dynamics. Since 2014, he is Coordinator of the EU-funded project VERTIGO (http://vertigo-itn.eu) with an international consortium of 9 Full Partners and 13 Associated Partners from 9 European countries. VERTIGO is educating 13 Early Stage Researchers in their training-through-research projects on different aspects of volcanic ash. He has worked at LMU since 2008.

Kristine M. Larson is a geodesist by training and is on the faculty of aerospace engineering at the University of Colorado, Boulder. She has developed methods to measure seismic waves, snow depth, soil moisture, and sea level variations using GPS receivers. She is currently working on detecting volcanic ash plumes with GPS instruments.



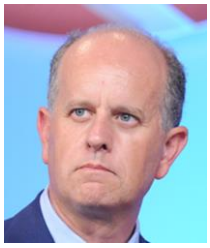
Peter Lechner is the Chief Meteorological Officer for the Civil Aviation Authority, and he manages all of the government's oversight interests in aviation meteorology for New Zealand. Alongside this work, he has held positions in senior CAA management responsible for strategic planning and reporting. In 2013, he completed a 3-year business and funding review of the CAA. He participates strongly in global aviation meteorological systems development through various International Civil Aviation Organization and other forums. Currently he is the Chairman (3 year term) of the newly established ICAO Meteorology Panel. Previously, he has Chaired the International Airways Volcano Watch management group and the International Volcanic Ash Task Force. Prior to coming to the CAA, hespent 18 years with the New Zealand Meteorological Service in various operational and management positions. His qualifications cover meteorology and physics, and he has a Masters degree in Business Administration. His interests in aviation extend to the maintenance of a private pilot's license with ratings on high performance single engine aircraft.

Ian Lisk is Head of Natural Hazards at the UK Met Office, providing leadership, strategic direction and oversight of Met Office natural hazard objectives and partnerships. He is Chair of the UK Natural Hazards Partnership (NHP), "The UK's trusted voice for coordinated natural hazards advice." Hs is Vice-president of the WMO Commission for Aeronautical Meteorology, which has the responsibility for helping to oversee and direct WMO's role, on behalf of its 193 Members, in responding to the requirements of the global aviation industry, primarily through the agreed working arrangements between WMO and ICAO. He joined the Met Office as a Weather Observer in 1987. From 1990-1992, he was an Operational Weather Forecaster based mainly in western England, Scotland and Wales with detachments to the Falklands and Ascension Island. From 2002-2006, he was a Forecaster Instructor at the Met Office College and, from 2006-2010, an International Collaboration Manager. He was a Volcanic Ash Program Manager from 2010-2013, and from 2013-present, Head of Natural Hazards and Chair of the NHP. Since 2003, he has held various international expert roles in support of WMO's aviation, disaster risk reduction and personnel training and development activities.

Larry Mastin is a physical volcanologist at the USGS Cascades Volcano Observatory, specializing in the physics and hazards associated with explosive volcanic eruptions. He conducts experiments and develops numerical models of processes such as the fragmentation, transport, aggregation, and deposition of volcanic tephra. He has worked at the USGS in this capacity since 1990. He obtained a Ph.D. in Geomechanics from Stanford University in 1988 and, from 1988 to 1990, worked as a post-doctoral researcher in Karlsruhe, Germany, compiling data on tectonic stress in Western Europe.

Pierrick Mialle is seismic-acoustic officer at the Comprehensive Nuclear-Test-Ban Treaty Organization in Vienna. Since 2008, he has been a scientist at the International Data Centre (IDC) as a specialist in infrasound technology. He is responsible for the IDC infrasound programme. His area of expertise includes waveform data processing, the study of natural and man-made events using infrasound technology. He also has a strong interest in civil and scientific applications using CTBT data and products. Prior to that he was a researcher at the Commissariat à l'Energie Atomique et aux Energies Alternatives (Atomic Energy and Alternative Energies Commission) in France.

Cecilia Miner is an aviation meteorologist in the U.S. National Weather Service (NWS) Aviation and Space Weather Services Branch. She is currently the NWS Volcanic Ash Program Manager and also participates in the WMO Expert Team developing proposals to modernize the Terminal Aerodrome Forecast. A licensed private pilot, her background includes a Ph.D. in Meteorology, 22 years as an aviation meteorologist in various terrestrial and space weather roles in the U.S. Air Force, 2 years as a contractor for the Federal Aviation Administration, and 11 years in the National Weather Service.



Augusto Neri is research director in physics of volcanism at the Istituto Nazionale di Geofisica e Vulcanologia, Pisa (Italy). His expertise is in the development and application of numerical simulation models of volcanic processes and assessment of their hazards. In about 24 years of activity he has published about 75 papers in referred journals and books. He has been coordinator and participant of several EU-funded projects as well as scientific responsible and participant of projects financed by national and international agencies. He is currently member of the international Volcanic Ash Scientific Advisory Group (VASAG) of IUGG-WMO for the mitigation of volcanic ash risk for air traffic.

Jeff Osiensky serves as the Acting Chief of the Environmental and Scientific Services Division (ESSD) of the U.S. National Weather Service's Alaska Region. In this capacity, Jeff assists in executing the meteorological and science/technology initiatives within NOAA/NWS Alaska Region. In addition, Jeff serves as the NOAA/NWS Alaska Regional Warning Coordination, Aviation and Volcanic Ash meteorologist. During Jeff's 28 year career with NOAA/NWS, he has worked for 18 years in the operational aviation forecast program within Alaska including the Alaska Aviation Weather Unit/Anchorage VAAC and management of the NWS Alaska aviation program. Jeff has been involved in various volcanic ash working groups over the past several years including ICAO IAVWOPSG, NOAA Volcanic Ash Working Group, U.S. Office of the Federal Coordinator for Meteorology (OFCM) Volcanic Ash Working Group, and the Alaska Interagency Volcanic Ash Working Group.

Mike Pavolonis has been a physical scientist with the NOAA National Environmental Satellite, Data, and Information Service (NESDIS) for the last 10 years. Mike leads a research group dedicated to developing near real-time applications for present day and future satellites, with a focus on volcanic clouds, short-term severe weather forecasting, and meteorological cloud properties relevant to aviation and ground transportation. Mike earned his Ph.D. in Atmospheric and Oceanic Sciences from the University of Wisconsin - Madison with a dissertation on volcanic cloud remote sensing. He is a member of several national and international bodies including the WMO Volcanic Ash Science Advisory Group (VASAG); the WMO Sustained, Coordinated Processing of Environmental Satellite Data for Nowcasting (SCOPE-Nowcasting) group; and the Committee on Earth Observation Satellites (CEOS) Disaster Risk Management (DRM) Volcano Team. Mike is stationed at the University of Wisconsin – Madison as part of NOAA's effort to facilitate collaboration between government scientists and academia. He and his research team at the University of Wisconsin developed the VOLcanic Cloud Analysis Toolkit (VOLCAT), which serves near real-time satellite data products to several Volcanic Ash Advisory Centers (VAAC's) and volcano observatories.

Raul Romero is a meteorologist working as senior technical officer within the International Civil Aviation Organization (ICAO) since the year 2000. Prior to joining ICAO, Raul worked in his home country, Uruguay, for 24 years where he reached the positions of Director of Aeronautical Meteorology and Director of the Meteorological Service of the Air Force. As part of his ICAO responsibilities, he worked as Secretary of several experts groups including the Wind Shear Study Group (WISTSG), the World Area Forecast System Operations Group (WAFSOPSG), the International Airways Volcano Watch Operations Group (IAVWOPSG) and the International Volcanic Ash Task Force (IVATF). Currently he is still working in volcanic ash related issues due to his involvement in the Meteorology Panel (METP) working groups on MET Information and Service Development (WG-MISD) and MET Operations Group (MOG).

Dave Schneider has been a research geophysicist with the U.S. Geological Survey at the Alaska Volcano Observatory (AVO) since 1997. He earned his Ph.D. degree from Michigan Technological University, with a dissertation focused on satellite detection of volcanic eruption clouds. He leads the remote sensing project at the AVO, and works closely with the National Weather Service (Anchorage VAAC and CWSU) and numerous other Federal Civil and Defense agencies during eruptions to mitigate the volcanic ash hazard. Recent work has focused on development of web-based tools that incorporate cutting-edge satellite-based products into operations. Other research work has involved airborne and ground-based thermal imaging, and application of meteorological radars in the study of eruption columns. He has advised USGS, ICAO and WMO groups over the years in matters of volcanic ash hazard mitigation.

Barbara Stunder is a meteorologist at the National Oceanic and Atmospheric Administration (NOAA) Office of Oceanic and Atmospheric Research, Air Resources Laboratory (ARL). Her area of focus is in volcanic ash applications of the HYSPLIT atmospheric transport and dispersion model, both trajectories and dispersion. She is the ARL liaison to the NOAA National Weather Service (NWS) National Centers for Environmental Prediction (NCEP) for implementation of HYSPLIT into operations. She is an advisor on the International Civil Aviation Organization (ICAO) Meteorology Panel Working Group – Meteorological Information and Services Development.

Yujiro J. Suzuki is an assistant professor at the Earthquake Research Institute, University of Tokyo, specializing in physical volcanology and numerical simulation. He develops three-dimensional numerical models of eruption cloud dynamics and tephra dispersal, and carries out large simulations using MPI code and supercomputer. He has worked at the Japan Agency of Marine-earth Sciences and Technology (JAMSTEC) as researcher from 2005 to 2010. He obtained a Ph.D. in Geoscience from the University of Tokyo in 2004.

Grace Swanson is currently a Senior Meteorologist with the NOAA-National Satellite Service (NESDIS) working in Washington DC., and works rotating shifts (24/7/365-weather never stops) analyzing global weather satellite imagery for natural hazards such as hurricanes, floods, fires and smoke, and, for her area of expertis,e volcanic ash. She has done a lot of travel since 1997 when she also become manager of the Washington Volcanic Ash Advisory Center and a recognized expert on the hazard of volcanic ash to aviation safety. For the past nine years, she has represented the United States at WMO and ICAO meetings in Thailand, Australia, New Zealand, France, Ecuador, Mexico, Hawaii, Alaska, Colombia, Nicaragua, Honduras, Guatemala and Dakar, and Senegal.

Benoit Taisne joined the Earth Observatory of Singapore, Nanyang Technological University in 2012. He has been studying volcanoes for the last 12 years trying to decipher the physical mechanisms occurring under the Earth's surface and leading to volcanic eruptions. Benoit aims to develop tools that could be used in real-time to mitigate risks linked to volcanic eruptions. By using numerical, as well as, analog modeling, his research sheds light into the understanding of magma migration dynamics prior volcanic eruption. Inspired by the time he spends at volcano observatories, he developed tools that could be used in real-time to help the interpretation of signals produced by volcanoes prior to their eruption. More recently, he has been promoting the use of infrasound as a tool to detect remote volcanic explosions capable of injecting volcanic ash into the atmosphere.

Andrew Tupper is the head of the National Operations Centre of the Australian Bureau of Meteorology, which operates the Bureau's operational numerical weather prediction suites, VAAC Darwin, the Joint Australian Tsunami Warning Centre, and a range of other aviation, public weather & marine forecasting functions. He has extensive forecasting experience, and for his PhD focused on volcanic ash clouds in the moist tropics. Dr Tupper is currently co-chair of the WMO-IUGG Volcanic Ash Science Advisory Group, and has had various other roles including as the manager of the Darwin VAAC. From 2008-2010 he also served as Chair of the Environment Protection Authority in the Northern Territory. Andrew has mostly lived in Melbourne and Darwin in Australia, and during 2002-04 in Kagoshima in southern Japan.

Tetsuyuki "Testsu" Ueyama is a Scientific Officer at the Earthquake and Tsunami Observation Division, Seismology and Volcanology Department, Japan Meteorological Agency. During the period April 2012 to March 2014, he facilitated the conclusion of an agreement between JMA and the Australian Bureau of Meteorology regarding back-up for the VAACs in Darwin and Tokyo. He also planned and implemented volcanic ash exercises in Kamchatka, and engaged in dialogue with the Anchorage VAAC regarding collaborative decision analysis and forecasting at the operational level.

Alexa Van Eaton is a physical volcanologist and Mendenhall postdoctoral fellow at the U.S. Geological Survey Cascades Volcano Observatory (https://profile.usgs.gov/avaneaton). She conducts field studies of plume dynamics and ash aggregation recorded in the deposits of recent and prehistoric eruptions. Her work integrates field-based observations with remote sensing and 3D large-eddy simulation of volcanic plumes. She completed her PhD in 2012 in New Zealand on the dynamics of the Earth's youngest super eruption from Taupo volcano.

Peter Webley is a faculty member in remote sensing at the Geophysical Institute, University of Alaska Fairbanks. His research interests include ash cloud modeling, developing decision support tools, monitoring of natural hazards, and remote sensing of volcanic processes. Peter is the Deputy Director of C-SSHRP (Center for the Studies of Security, Hazards, Response and Preparedness) whose goal is to integrate hazards research with emergency management training programs. He was the co-chair and the Americas and Caribbean rep. of the World Organization of Volcano Observatories (WOVO) from 2008 – 2015 and was the advisor to the WOVO representative for the International Volcanic Ash Task Force.

Meelis Zidikheri completed his PhD in 2007 having worked in various areas of geophysical fluid dynamics with a particular focus on nonlinear dynamics. In 2008 he joined the Australian Bureau of Meteorology to work on the formulation of a new inverse modelling technique for use in climate change studies. In 2012 he began working on volcanic ash dispersion modelling. His work in this area has been focussed on formulating a new inverse modelling technique for inferring source term parameters from satellite detections of ash.