

United States Department of the Interior

U.S. GEOLOGICAL SURVEY
Office of the Director
Reston, Virginia 20192

CITATION

SUPERIOR SERVICE AWARD

DIANNE L. BRIEN

In recognition of their outstanding contributions to the Landslide Program of the U.S. Geological Survey (USGS).

In 2004, the National Research Council (NRC) performed a review of the U.S. Geological Survey Landslide Program (USGS-LP) National Landslide Hazards Mitigation Strategy. One of the central themes and recommendations is partnerships. The NRC committee acknowledged the great need for a national partnership especially between the USGS-LP, State Geological Surveys, and local governments. In 2005, the USGS-LP, including Dianne Brien, Jeffrey Coe, and Mark Reid, and the Oregon Department of Geology and Mineral Industries (DOGAMI) started a 5-year Collaborative Landslide Hazard Project in Oregon. A significant amount of work was accomplished and the success of this project was attributed to the partnership, a necessary component for an effective landslide risk reduction and improved public safety. One of the more complicated landslide hazards in Oregon are the channelized debris flows. At the beginning of the project, DOGAMI asked the USGS-LP staff to focus research on improved understanding and ability to delineate debris flow hazard zones in Oregon. The research that was developed by the USGS-LP was transferred to the State Geological Survey which applied the methods to produce maps and improve the local understanding of the hazard. This information developed at a local scale is then transferred to the local communities where the risk reduction and improved public safety are primarily performed. The USGS-LP team worked tirelessly for a decade, publishing many papers which significantly improved our understanding of channelized debris flow hazard in Oregon. This research culminates in the article titled, "Forecasting inundation from debris flows that grow volumetrically during travel, with application to the Oregon Coast Range," by Reid, Coe, and Brien published in *Geomorphology* (v. 273, 2016). The article compiles the decade of research and results in a vetted, transparent method which DOGAMI will use to produce channelized debris flow hazards maps throughout Oregon. This partnership of collaborative research and method development is exactly what was recommended by the NRC. For her dedication and outstanding contributions in support of the USGS mission to reduce landslide risk and increase public safety, Ms. Dianne Brien is granted the Superior Service Award of the Department of the Interior.

Suzette M. Kimball
Director



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FOR SUPERIOR SERVICE

KENNA D. BUTLER

In recognition of her outstanding efforts in managing the Central Branch of the National Research Program (NRP) of the U.S. Geological Survey (USGS).

Kenna Butler is recognized as a highly capable chemist and laboratory manager in the NRP. She has effectively managed a research laboratory of employees who provided data for 15 projects using state-of-the art scientific instruments. Ms. Butler recruited and trained all of these employees most of whom were students who, because of Ms. Butler's outstanding leadership, have gone on to be successful scientists and researchers in various aspects of aquatic chemistry. Ms. Butler was selected to be the Assistant Branch Chief of the Central Branch of the NRP in 2015. When the Branch Chief retired in 2016, Ms. Butler volunteered to assume the role of Acting Branch Chief, while maintaining her Assistant Branch Chief duties. Using the skills and experience that she developed as a laboratory manager, she began addressing some long-standing issues. She hired highly qualified IT staff to support needs in the Boulder and the Lakewood, Colorado, Central Branch offices; she resolved a laboratory space issue in Boulder; she vacated space in the National Water Quality Lab on the Denver Federal Center which reduced facilities' costs and provided space for a new occupant; she resolved a critical, challenging safety issue by managing the disposal of hazardous chemicals; and she successfully navigated a scientific integrity dispute. All of these issues would be a challenge for even a seasoned manager, but Ms. Butler handled the issues with composure and diplomacy, all the while ensuring that the business of the Branch ran smoothly. Ms. Butler is to be commended for her problem-solving and organizational skills, her can-do attitude, and her dedication to USGS scientific research that enabled the Central Branch of the NRP to maintain a high-level of productivity and morale during a time of management uncertainty and organizational change. For her outstanding contributions to the USGS, Kenna Butler is granted the Superior Service Award of the Department of the Interior.

Suzette M. Kimball
Director



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JEFFREY A. COE

In recognition of his outstanding leadership contributions to the mission of the U.S. Geological Survey (USGS) through his work in response to the West Salt Creek landslide in Mesa County, Colorado.

As the lead USGS representative, Jeffrey A. Coe provided exceptional leadership to a multi-agency team responding to the May 2014 West Salt Creek landslide in Mesa County, Colorado. Mr. Coe's leadership and expertise helped guide decisions and operations by the Incident Command and others in response to the slide, which tragically killed three individuals living in the area of the landslide. Mr. Coe led a scientific team that overcame challenges of the remote location and difficult mountainous terrain to evaluate the threats to nearby and downstream communities from additional landslide activity and flooding. The task was unusually complex because the slide dammed the flow of West Salt Creek, forming a large pond at the head of the slide. Concern regarding the integrity of the pond persisted for two years until the dam overtopped, partially draining the pond. During this two-year period, Mr. Coe worked with county, State, and Federal agencies to install and maintain a monitoring network to provide information to residents and officials. He participated in a variety of communication activities during the period to translate general scientific understanding of landslide behavior and the growing body of knowledge of the West Salt Creek rock avalanche for officials, media, and the general public. Exemplary of the USGS mission, Mr. Coe and his team provided scientific understanding of landslides to responsible officials to reduce the potential for further loss of lives and property in a time of crisis and well into the future. Mr. Coe and his team contributed their observations and findings to an article and map recently published by the Geological Society of America, expanding the body of knowledge of these types of events. For his outstanding contributions to the USGS, Jeffrey A. Coe is granted the Superior Service Award of the Department of the Interior.

Suzette M. Kimball
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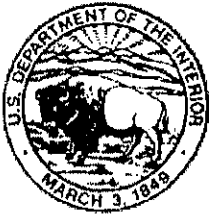
SUPERIOR SERVICE AWARD

JEFFREY A. COE

In recognition of their outstanding contributions to the Landslide Program of the U.S. Geological Survey (USGS).

In 2004, the National Research Council (NRC) performed a review of the U.S. Geological Survey Landslide Program (USGS-LP) National Landslide Hazards Mitigation Strategy. One of the central themes and recommendations is partnerships. The NRC committee acknowledged the great need for a national partnership especially between the USGS-LP, State Geological Surveys, and local governments. In 2005, the USGS-LP, including Jeffrey Coe, Mark Reid, and Dianne Brien, and the Oregon Department of Geology and Mineral Industries (DOGAMI) started a 5-year Collaborative Landslide Hazard Project in Oregon. A significant amount of work was accomplished and the success of this project was attributed to the partnership, a necessary component for an effective landslide risk reduction and improved public safety. One of the more complicated landslide hazards in Oregon are the channelized debris flows. At the beginning of the project, DOGAMI asked the USGS-LP staff to focus research on improved understanding and ability to delineate debris flow hazard zones in Oregon. The research that was developed by the USGS-LP was transferred to the State Geological Survey which applied the methods to produce maps and improve the local understanding of the hazard. This information developed at a local scale is then transferred to the local communities where the risk reduction and improved public safety are primarily performed. The USGS-LP team worked tirelessly for a decade, publishing many papers which significantly improved our understanding of channelized debris flow hazard in Oregon. This research culminates in the article titled, "Forecasting inundation from debris flows that grow volumetrically during travel, with application to the Oregon Coast Range," by Reid, Coe, and Brien published in *Geomorphology* (v .273, 2016). The article compiles the decade of research and results in a vetted, transparent method which DOGAMI will use to produce channelized debris flow hazards maps throughout Oregon. This partnership of collaborative research and method development is exactly what was recommended by the NRC. For his dedication and outstanding contributions in support of the USGS mission to reduce landslide risk and increase public safety, Mr. Jeffrey Coe is granted the Superior Service Award of the Department of the Interior.

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JEREMY M. FEE

In recognition of his outstanding contributions to the U.S. Geological Survey's (USGS) Earthquake Hazard Program in the area of software development for product delivery and information exchange.

Jeremy Fee is a leader in developing innovative and scalable software solutions for the USGS Earthquake Hazards Program and Geologic Hazards Science Center. In 2009, he was tapped to design and build an earthquake message distribution system that would become a key component of National Earthquake Information Center operations. What emerged was the Product Distribution Layer (PDL), a framework for exchanging numerous products related to earthquake events. With the PDL, the one dozen or more USGS-supported seismic networks of the Advanced National Seismic System (ANSS) are able to exchange magnitude, location, ground shaking, and arrival information to determine optimal event solutions across seismic network boundaries. Although the PDL was originally intended to support real-time operations, Mr. Fee recognized the benefit of cataloging the results and took the next step of developing an ANSS comprehensive earthquake catalog (ComCat) fed by the PDL. Together, these two technologies have been transformative, supporting seamless integration of earthquake information from across the community and allowing for a one-stop shop for the public to access all earthquake-related products and information. A testament to the success of the PDL is the broad adoption by the external community – the PDL has become the national standard for earthquake product exchange and is used by multiple national institutions as well as several international organizations. Similarly, ComCat is now being replicated to support other uses including cataloging of USGS earthquake scenarios. Mr. Fee's dedication and expertise have contributed greatly to the advancement of technology in the USGS and for this, Jeremy M. Fee is granted the Superior Service Award of the Department of the Interior.

Suzette M. Kimball
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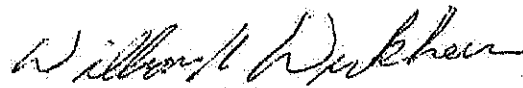
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FOR SUPERIOR SERVICE

DANIEL T. FEINSTEIN

In recognition of his outstanding contributions to the U.S. Geological Survey (USGS) in developing and applying innovative methods for adapting regional groundwater-flow models to address local-scale problems.

As a Senior Modeler for the Wisconsin Water Science Center, Mr. Daniel Feinstein has provided leadership in the adaptation of regional groundwater-flow models to local-scale hydrologic problems. The USGS is a world leader in the development of numerical modeling software to simulate hydrologic processes. In particular, USGS groundwater-flow models are used extensively by hydrogeologists, both nationally and internationally. Mr. Feinstein is recognized specifically as the lead architect of the Lake Michigan Basin (LMB) model, developed in support of the Great Lakes Basin Pilot project under the USGS National Water Availability and Use Program. The transient, 20-layer, 2-million-cell model incorporates multiple aquifers and pumping centers to quantify changes in the groundwater system in response to variations in pumping and recharge from 1864 to 2005. The USGS encourages multiplying the return on investment in regional models by adapting them for local uses. Mr. Feinstein has shown great leadership in embracing this principle by adapting the LMB model for three unrelated local-scale studies in Wisconsin. These groundwater studies address very different objectives, have different funding sources, and involve different partners. In each case, Mr. Feinstein successfully developed innovative approaches that were specific to each of these three hydrologic settings and the cooperator's objectives. Through his dedication to conducting superior science and providing great value to the USGS and our partners, he has substantially advanced the ability of our scientists to adapt regional groundwater-flow models for local use. For his outstanding scientific contributions to the USGS, Mr. Daniel T. Feinstein is granted the Superior Service Award of the Department of the Interior.


William H. Werkheiser
Acting Director



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MICHELLE R. GUY

In recognition of her outstanding contributions to the Earthquake Hazards Program of the U.S. Geological Survey (USGS).

Michelle Guy is the chief designer and lead developer for an array of sophisticated mission-critical computer systems that are used by the National Earthquake Information Center (NEIC) to process, manage, and distribute important USGS earthquake information products to a broad user community. Ms. Guy has played a key role in the development and integration of such software systems as Bulletin Hydra, PAGER, ShakeMap, ComCat, Event Map, and many more that support this mission-critical function. She also serves as a technical liaison to the Advanced National Seismic System and as a subject matter expert helping to advise the Department of Energy on the development of a new seismic processing system for the nuclear monitoring community. The NEIC real-time processing system (Hydra) developed by Ms. Guy and her team has worked flawlessly in supporting the USGS mission to rapidly detect, characterize, and report on devastating earthquakes that include the 2010 M8.8 Maule, Chile; 2011 M9.0 Tohoku, Japan; and 2015 M7.8 Gorkha, Nepal, earthquakes. Working with web-developers and NEIC staff, Ms. Guy helped to coordinate the integration of real-time and archival earthquake information into the Comprehensive Earthquake Catalog which is a widely used repository for earthquake information and products. She collaborated with scientists and developers to create and implement a strategy to migrate from obsolete imbedded technologies to more modern and sustainable systems, thereby eliminating a long-recognized vulnerability to our systems. Ms. Guy has been instrumental in the development of strategies and methodologies for leveraging social media for earthquake detection and notification. The NEIC Twitter-based Earthquake Detector provides early situational awareness of earthquakes in populated areas of the world and is an easy, novel, and cost-effective venue for distributing USGS earthquake information to the public. Ms. Guy's dedication and efforts have led to remarkably sophisticated and robust IT systems that ensure timely delivery of essential USGS natural hazards products to national and international response agencies, State and local governments, the media, and the general public. For her outstanding contributions to the USGS, Michelle R. Guy is granted the Superior Service Award of the Department of the Interior.

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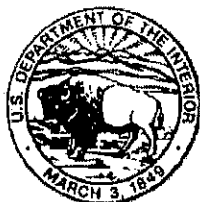
FOR SUPERIOR SERVICE

JOSEPH R. HOLOMUZKI

For his outstanding contributions to the National Research Program of the U.S. Geological Survey (USGS).

The National Research Program (NRP) of the USGS, in collaboration with other Bureau programs and partners, has conducted ship-based research in the San Francisco Bay and Sacramento-San Joaquin Delta, the largest estuary on the West Coast, resulting in more than 400 research publications. Scientific research within the Bay-Delta region fulfills a USGS mission to collect and disseminate reliable, impartial, and timely information related to the Nation's water resources. When Dr. Joseph Holomuzki joined the NRP as Western Branch Chief in 2012, he immediately recognized that the existing research vessel, which was wooden-hulled and built in 1927, had to be replaced by a modern research vessel to support USGS science in the future. For the next two and a half years, Dr. Holomuzki invested significant effort in securing support and funding from both within the USGS and with partner agencies in the San Francisco Bay Area for the purchase of a new vessel. Through his persistence and commitment, a replacement vessel was procured in the fall of 2015. Dr. Holomuzki oversaw all aspects of the vessel search including advertising the solicitation, appointing a team of engineers and scientists to advise on the selection, communicating with contracting officers, and coordinating the necessary retrofits to make the vessel science-ready. The new vessel provides a modern platform for another 40 years of state-of-the-art scientific research in the San Francisco Bay-Delta region. Dr. Holomuzki also procured funding from partner organizations to retrofit the vessel from a workboat to a research vessel, and he oversaw the disposal of the 90-year RV Polaris. Dr. Holomuzki is to be commended for his vision and dedication to the future of USGS scientific research and the continued collaborations with other Federal, State, and local agencies and universities that will address highly relevant estuary issues. For his outstanding contributions to the USGS, Dr. Joseph R. Holomuzki is granted the Superior Service Award of the Department of the Interior.

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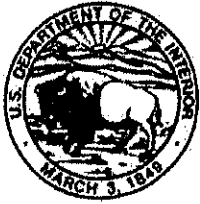
FOR SUPERIOR SERVICE

LINDA R. HUEY

For her outstanding contributions and support in maintaining operational continuity, recordkeeping, logistics, and institutional memory for the Volcano Hazards Program of the U.S. Geological Survey (USGS).

Created approximately 20 years ago, the Volcano Hazards Program has had five successive Program Coordinators, two of whom came from outside of the USGS. As Program Specialist for the Hazards Program, Ms. Linda Huey has personally facilitated the transition of new staff including the Program Coordinator and Associate Program Coordinator roles. Her meticulous efforts have been critical for maintaining operational continuity, including organization and updating of program literature and resources, recordkeeping, logistical coordination of annual program meetings, and arranging invitational travel of foreign and domestic scientists sponsored by the Hazards Program. Ms. Huey continually strives to meet the administrative needs of management and was a critical resource as field staff were brought in to fill short-term details for both the Program Coordinator and Associate Program Coordinator roles. She helped maintain open communications between Headquarters, the Volcano Science Center, and the six Volcano Observatories. Additionally, her knowledge of the Hazards Program and staff helped educate incoming Headquarters staff on the areas of expertise embodied by the scientific and technical personnel at the USGS volcano observatories. Ms. Huey's "can do" attitude has been a great resource within the Natural Hazards Mission Area as it transitioned from a program centric view to a more Mission Area focus. In support of Mission Area needs, Ms. Huey participates on the Administrative Support Team which focuses on ensuring that all support and administrative needs are being met in an efficient and effective manner. Additionally, she represents the Mission Area on the Bureau space committee helping to oversee the reduction and reorganization of Mission Area office space in line with Federal Government requirements. For her outstanding contributions and dedication to the USGS, Linda R. Huey is presented the Superior Service Award of the Department of the Interior.

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DANIEL K. JONES

In recognition of his outstanding leadership of the Sediment-bound Contaminant Resiliency and Response (SCoRR) strategy for the United States Geological Survey (USGS).

In response to Hurricane Sandy in 2012, a Bureau science plan was developed to target five key themes, one being to understand the impacts on environmental quality and persisting contaminant exposures. Daniel Jones had been with the Bureau just a few months, yet on the basis of his remarkable technical and geospatial work for Eastern Geographic Science Center researchers, he was asked to lead a new project to map, measure, and predict vulnerability caused by contaminant hazards from Hurricane Sandy and other storms along the Northeast coast. Mr. Jones met the challenge by developing a work plan, assembling geospatial and web development teams, fostering partnerships, conducting workshops and writing proposals. As the project grew, Mr. Jones led his team and its Bureau partners to develop innovative, integrative and interactive tools to collect, manage and visualize field data and prioritize sampling locations based on the needs of local stakeholders. He orchestrated an extensive field data collection effort, implementing the mapping application and field tools which populated the database in real time, and tracked data collection efforts. Meanwhile, the project earned interest from multiple Bureau programs seeking collaboration to answer key landscape-based vulnerability and source-to-receptor linkages. Mr. Jones tailored SCoRR's methods to their needs. The project was also recognized at the Bureau level after he rapidly deployed a team to use the SCoRR strategy to collect field data after Hurricane Joaquin. Due to its success, the project was expanded to the Southeast coast, and a web mapping application now allows users to view information from the study. Due to Mr. Jones' technical, organizational and leadership efforts, the project continues to gain funding and grow. For his exceptional service in developing a program to map, measure, and predict vulnerability from contaminant hazards from coastal storms, Daniel K. Jones is granted the Superior Service Award of the Department of the Interior.

A handwritten signature in cursive script that reads "Suzette M. Kimball".

Suzette M. Kimball
Director



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KEVAN P. KAMIBAYASHI

In recognition of his outstanding contributions to the U.S. Geological Survey (USGS) through his work at the Hawaiian Volcano Observatory (HVO).

As HVO's supervisory electronic technician, Kevan Kamibayashi led the realignment of the technical staff to support all scientific disciplines, and managed the modernization of field installations and telemetry aspects of the volcano and earthquake monitoring network. His professionalism, technical expertise, and commitment to support science goals and his employees has helped transform HVO's network into the most data-rich and reliable monitoring network in the USGS Volcano Science Center (VSC). When Mr. Kamibayashi began his supervisory position in 2010, technicians supporting the analog- and digital-monitoring networks had been assigned to single science disciplines for more than two decades. Coordination across disciplines regarding site locations, permitting, installation, and maintenance of instruments and power and telemetry systems needed to be improved. After HVO received \$3.5 million from the American Recovery and Reinvestment Act (ARRA) in 2009 to modernize its monitoring network and infrastructure, he became responsible for leading a single group to service all field installations. By 2016, the HVO monitoring systems were transformed into a digital network with redundant telemetry pathways consisting of multiple-ringed topologies that self-heal after natural disasters or hardware failures. All HVO technicians were cross-trained in the installation, maintenance, and troubleshooting of nearly all monitoring instruments, radios, and power systems. They have embraced a pro-active, service-oriented approach to their work— aspects that have increased station and network reliability. During the overhaul of old stations and build-out of the new stations, Mr. Kamibayashi looked for ways to improve network capability and integration and increase safety practices, including fall protection procedures, helicopter operations, and everyday tasks in the shop and field. For his leadership in transforming the HVO technical support staff into an effective, responsive team that supports the entire monitoring network, and for guiding the overall design, installation, maintenance, and continued improvements of the digital network, Kevan Kamibayashi is granted the Superior Service Award of the Department of the Interior.

William H. Werkheiser
Acting Director



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R. LOPAKA LEE

In recognition of his outstanding contributions to the U.S. Geological Survey (USGS) through his work at the Hawaiian Volcano Observatory (HVO).

As HVO's geophysicist responsible for IT systems, R. Lopaka Lee has led an effort to modernize the observatory's volcano-monitoring infrastructure. His professionalism, technical expertise, and future vision has helped transform HVO's telemetry and data-processing systems into the most data-rich and reliable volcano-monitoring system in the USGS Volcano Science Center. This system has facilitated scientific advancements in instrumentation and research that otherwise would not have been achieved. When Mr. Lee began working for the Center in 2007, HVO's scientific disciplines managed independent telemetry and data-processing networks, resulting in duplication of hardware, software, and technical staff. In 2008, Mr. Lee presented a long-term vision that would consolidate resources, modernize the data acquisition and processing infrastructure, and enhance HVO's collaboration and scientific integration. His vision was made possible in 2009 when the HVO received \$3.5 million from the American Recovery and Reinvestment Act (ARRA). Through his leadership and consensus-building efforts, HVO staff, contractors, and businesses worked together during the next 5 years to completely redesign the volcano-monitoring network. This system now operates as a single switched network, spanning over 1,000 square kilometers on the Island of Hawai'i, consisting of multiple ringed topologies that can self-heal after natural disasters or failures of hardware. The data-processing portion of the system operates as a fault-tolerant server and data-storage system with high levels of survivability. The entirety of the system stands as a world-class model of how to architect and operate a modern scientific telemetry and data-processing network. In 2016, Mr. Lee planned, advocated for, and brought to reality connection of the HVO telemetry network to the Statewide Anuenue Interisland Digital Microwave Network for an emergency connection to O'ahu in the event that commercial internet communications fail. For his leadership in transforming the volcano-monitoring network, enhancing volcano and earthquake monitoring and research capability, and serving as the catalyst for better teamwork amongst the staff of the USGS HVO and its partners, R. Lopaka Lee is granted the Superior Service Award of the Department of the Interior.

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JEFFREY J. LOVE

In recognition of his outstanding leadership contributions to the mission of the U.S. Geological Survey (USGS) through his work to advance geomagnetic and geoelectric field modeling.

The Office of Science and Technology Policy (OSTP) and the National Science and Technology Council (NSTC) have identified space weather as a significant threat to the Nation. Earth-directed solar storms – bursts of charged particles from the Sun’s plasma surface – can induce geo-electric currents in transmission lines, thereby threatening the integrity of this critical infrastructure. To better assess this hazard and develop mitigation strategies, the OSTP and NSTC developed a multi-agency Space Weather Strategy and Action Plan. Dr. Jeffrey Love was a key contributor to the development of this plan, and co-led several efforts to define the science needed to reduce the Nation’s risk to geomagnetic storms. Building on this planning effort, Dr. Love has also led an effort to benchmark past geomagnetic storms to guide expectations for future solar behavior. He and colleagues have also developed ground-breaking, predictive models of geoelectric time-varying hazard, based on real-time magnetic recordings and recent magnetotelluric survey results mapping the Earth’s conductivity across parts of the conterminous United States. His modeling results indicate that induced currents can vary dramatically due to changing geologic conditions (e.g., conductivity) beneath the Nation’s power grids. Of the areas surveyed so far, those at the highest risk are in the upper Midwestern States of Minnesota and Wisconsin, where metamorphic rocks of the Superior Craton are extremely thick and highly resistive, making the power grid the most attractive path for induced currents. Dr. Love’s research has also highlighted the importance of completing an effort launched by the National Science Foundation (NSF) to survey lithospheric conductivity. The NSF effort was not initially intended to cover the entire conterminous United States, but that has now been reconsidered in light of Dr. Love’s compelling research showcasing the importance of conductivity in induction hazards. Dr. Love has also been a very effective and passionate spokesperson for space weather hazards and for the USGS Geomagnetism Program. Whether through his research, or through his community efforts to develop science-based action plans to quantify and mitigate space weather hazards, Dr. Love has been a leading figure in reducing the Nation’s risk from space weather. For his outstanding contributions to the USGS, Dr. Jeffrey Love is granted the Superior Service Award of the Department of Interior.

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Director



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ERIC M. MARTINEZ

In recognition of his outstanding contributions to the U.S. Geological Survey's (USGS) delivery of real-time hazards information to support emergency response.

Eric Martinez is a leader in creating effective, efficient software solutions for the USGS. He has spearheaded numerous initiatives that are redefining technological best practices for the Geologic Hazards Science Center and the broader USGS software community. One of his major contributions is the design of a state-of-the-art web architecture for delivery of earthquake information. Catastrophic earthquakes come with no warning and motivate several orders of magnitude increase in web traffic in the minutes and hours following the event. To be able to handle this dramatic and unpredictable surge in demand, Mr. Martinez implemented a number of unique design features in the new architecture. These features include: geographic redundancy, multiple layers of caching, and efficient internal processing. He also led the design of new mobile-friendly pages, ensuring the earthquake products and information are optimally rendered whether on a phone, tablet, or desktop. In order to provide transparent access to USGS processes and science, Mr. Martinez volunteered as the administrator on the USGS GitHub project which is a repository where USGS developers can store code. In this capacity, he reviews software projects from multiple science centers across the Bureau and provides constructive feedback related to coding standards and other best practices. He is also a member of the USGS technical support team wherein he helps guide bureau-wide technology decisions. His leadership in these roles is bringing the Bureau in line with recognized best practices and is helping the USGS to adapt in a rapidly changing technical environment. Mr. Martinez promotes and practices a rigorous commitment to quality throughout the software development process. This commitment to quality has shaped development practices and procedures and has led to more robust applications which are crucial to rapidly distribute natural hazards information. For his outstanding contributions to the USGS, Eric M. Martinez is granted the Superior Service Award of the Department of the Interior.

Suzette M. Kimball
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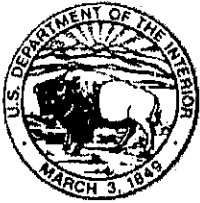
CAROL E. PETERS

In recognition of her outstanding contributions to the administrative management of the National Geospatial Program (NGP) of the U.S. Geological Survey (USGS).

Ms. Carol Peters is recognized for her significant role in supporting the NGP through her key contributions ensuring successful administrative operations for staff, managers, and executives. She has been a cornerstone of the NGP over the past four years, providing continuity of support from the retirement of one Program Director, through the 10-month tenure of an acting Program Director, and finally to the selection of the current, permanent Program Director. Her efforts ensured a smooth transition and onboarding of the new leadership. During these staffing changes and associated challenges, she provided excellent administrative support for the NGP Headquarters staff while also periodically assisting the Core Science Systems (CSS) Associate Director's (AD) Office and the Core Science Analytics, Synthesis and Libraries program support teams. Ms. Peters added tremendous value in advising and recommending many workforce staffing actions, bringing to bear her experience and insights in workforce planning and management. She participated as a member of several hiring review panels, contributing her in-depth knowledge of administrative tasks and challenges to the candidate selection process for positions both in the NGP and in other CSS programs. Her advice and counsel on financial matters have been critical to the NGP Planning, Budget and Finance team, particularly during its recent leadership transition. She has capably assisted the NGP Deputy Director with office space planning, providing monthly travel data to the CSS AD Office, and acting as the alternate CSS member on the National Center Safety Team. Her expert administrative experience combined with her willingness to step in wherever needed make Ms. Peters an invaluable team member. For her exceptional contributions and dedication to supporting the NGP and the CSS Mission Area of the USGS, Ms. Carol Peters is granted the Superior Service Award of the Department of the Interior.

A handwritten signature in black ink, appearing to read "William H. Werkheiser".

William H. Werkheiser
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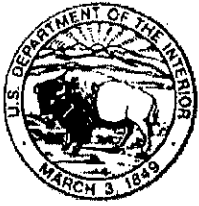
SUPERIOR SERVICE AWARD

MARK E. REID

In recognition of their outstanding contributions to the Landslide Program of the U.S. Geological Survey (USGS).

In 2004, the National Research Council (NRC) performed a review of the U.S. Geological Survey Landslide Program (USGS-LP) National Landslide Hazards Mitigation Strategy. One of the central themes and recommendations is partnerships. The NRC committee acknowledged the great need for a national partnership especially between the USGS-LP, State Geological Surveys, and local governments. In 2005, the USGS-LP, including Mark Reid, Jeffrey Coe, and Dianne Brien, and the Oregon Department of Geology and Mineral Industries (DOGAMI) started a 5-year Collaborative Landslide Hazard Project in Oregon. A significant amount of work was accomplished and the success of this project was attributed to the partnership, a necessary component for an effective landslide risk reduction and improved public safety. One of the more complicated landslide hazards in Oregon are the channelized debris flows. At the beginning of the project, DOGAMI asked the USGS-LP staff to focus research on improved understanding and ability to delineate debris flow hazard zones in Oregon. The research that was developed by the USGS-LP was transferred to the State Geological Survey which applied the methods to produce maps and improve the local understanding of the hazard. This information developed at a local scale is then transferred to the local communities where the risk reduction and improved public safety are primarily performed. The USGS-LP team worked tirelessly for a decade, publishing many papers which significantly improved our understanding of channelized debris flow hazard in Oregon. This research culminates in the article titled, "Forecasting inundation from debris flows that grow volumetrically during travel, with application to the Oregon Coast Range," by Reid, Coe, and Brien published in *Geomorphology* (v. 273, 2016). The article compiles the decade of research and results in a vetted, transparent method which DOGAMI will use to produce channelized debris flow hazards maps throughout Oregon. This partnership of collaborative research and method development is exactly what was recommended by the NRC. For his dedication and outstanding contributions in support of the USGS mission to reduce landslide risk and increase public safety, Mr. Mark Reid is granted the Superior Service Award of the Department of the Interior.

Suzette M. Kimball
Director



United States Department of the Interior

U.S. GEOLOGICAL SURVEY

Office of the Director
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CITATION

FOR SUPERIOR SERVICE

DENNIS M. STALEY

In recognition of his outstanding leadership contributions to the U.S. Geological Survey (USGS) through his work to advance post-wildfire debris flow hazard assessments.

The frequency and severity of large wildfires has increased in the western United States over the past several decades driving an increase in post-fire debris flow impact and awareness. To support decisions by land and emergency managers, the USGS produces estimates of debris-flow probability and magnitude for steep watersheds recently burned by wildfire. Prior to 2014, it took weeks or longer to deliver these hazard assessments. As the USGS scientist responsible for producing the assessments, Dr. Dennis M. Staley demonstrated exceptional leadership by recognizing the needs of stakeholders for a rapidly delivered digital product. Dr. Staley led the effort to improve the models underpinning the hazard assessments and to automate the production of results--dramatically reducing the delivery time of actionable scientific information. The USGS is now able to produce and distribute post-wildfire hazard assessments compatible with Geographic Information Systems technology for major wildfires across the western United States within a few days after the fire has been contained and burn-severity data become available. The new system also enables the USGS to increase the number of hazard assessments produced each fire season by a factor of five or more over what was achievable prior to 2014. This allows the USGS to meet the growing needs of key users such as the Department of the Interior and the U.S. Forest Service Burned Area Emergency Response Teams. Dr. Staley's work to improve the algorithms used to estimate debris-flow likelihood has resulted in both improved model skill and broader geographic applicability. These scientific advancements not only benefit the post-fire debris-flow hazard assessments, but also enable expansion of post-fire debris-flow early warning. The USGS and the National Oceanic Atmospheric Administration have collaborated for more than a decade on a prototype system in southern California, but with these advances, the system can potentially be expanded to most of the recently burned areas of the western United States. Dr. Staley is currently leading the effort to inform and engage the National Weather Service in the expansion. For his outstanding contributions to the USGS, Dr. Dennis M. Staley is granted the Superior Service Award of the Department of the Interior.

Suzette M. Kimball
Director



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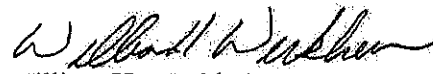
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FOR SUPERIOR SERVICE

DEBORAH L. STOLIKER

For her outstanding contributions to the large vessel program of the U.S. Geological Survey (USGS).

Ms. Deborah L. Stoker is being recognized for her diligence and service to coordinate efforts by multiple historic preservation officers, USGS scientists and staff, and General Services Administration (GSA) officials to complete requirements for excessing the USGS research vessel *RV Polaris*. Originally built in 1927 as a pleasure yacht, and modified for scientific research while under Federal ownership since 1966, the historic vessel was one of the oldest working vessels in federal service. During the last year, Ms. Stoliker worked with historic preservation officers from multiple agencies to preserve a part of America's heritage prior to auctioning. She tirelessly moved the process forward to finalize a Programmatic Agreement for disposition of the vessel in consultation with GSA, USGS, the California State Historic Preservation Office (CA SHPO), and the Advisory Council on Historic Preservation (ACHP). The Agreement was signed by the GSA Regional Commissioner, Assistant Commissioner, Federal Preservation Officer, the USGS Federal Preservation Officer, the CA SHPO, the ACHP, and Ms. Stoliker. Moreover, Ms. Stoliker consulted with the National Park Service regarding documentation for the Historic American Engineering Record to be filed with the Library of Congress. GSA ran the auction through the GSA excess process. The end result of Ms. Stoliker's efforts was that the history of the vessel was preserved, the vessel was successfully auctioned and ownership transferred, and the new owner plans to restore the vessel to its 1927 charm and beauty. In addition, Ms. Stoliker's leadership and devoted service to the project has brought high recognition to the USGS from other Federal and State agencies. For her outstanding contributions to historic preservation and to the USGS, Deborah L. Stoliker is granted the Superior Service Award of the Department of the Interior.


William H. Werkheiser
Acting Director