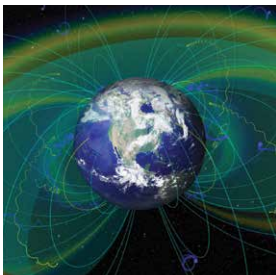
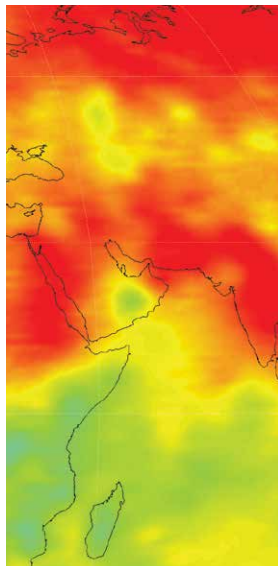


Schedule of Events at the NASA Booth

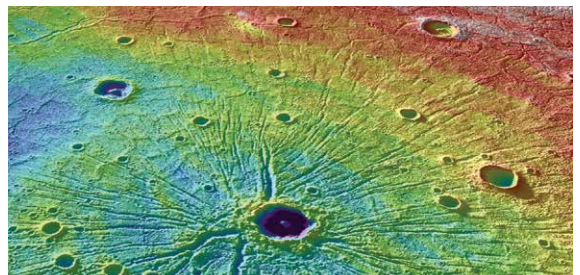
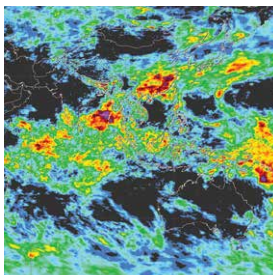
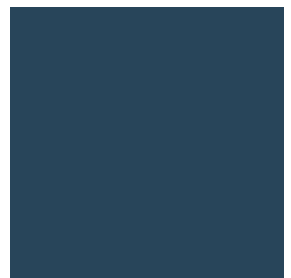
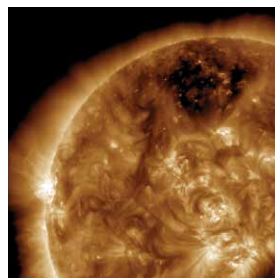
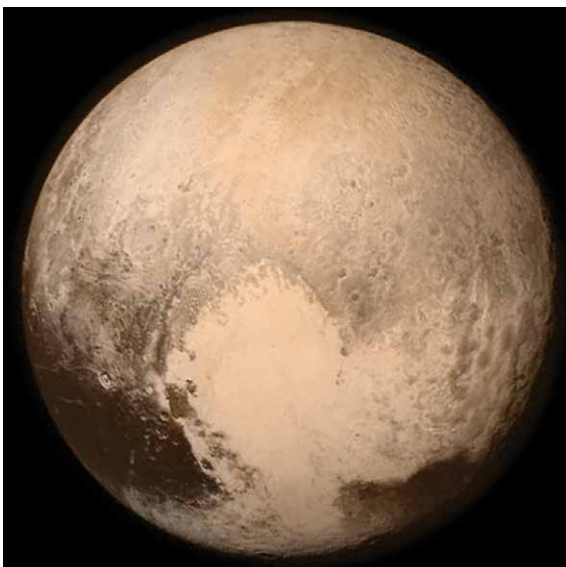


Please join us at the NASA booth (#335), where we will showcase a wide variety of science presentations and cutting-edge, interactive science, technology, and data demonstrations. This year's program will be held Tuesday, December 15, through Friday, December 18, 2015. Hyperwall presentations and In-Booth Science Flash Talks will cover a range of research topics, science disciplines, and programs within NASA.

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Hyperwall Presentation Agenda

Monday, December 14		
Time	Presentation	Presenter
Reception 6:00 - 8:00 PM	NASA's Earth Observation Capabilities: Meeting the Challenges of Climate and Environmental Change	Dr. Michael Freilich
	Recent Discoveries in Planetary Science	Dr. Jim Green
	Highlights of Heliophysics	Mr. Steven Clarke

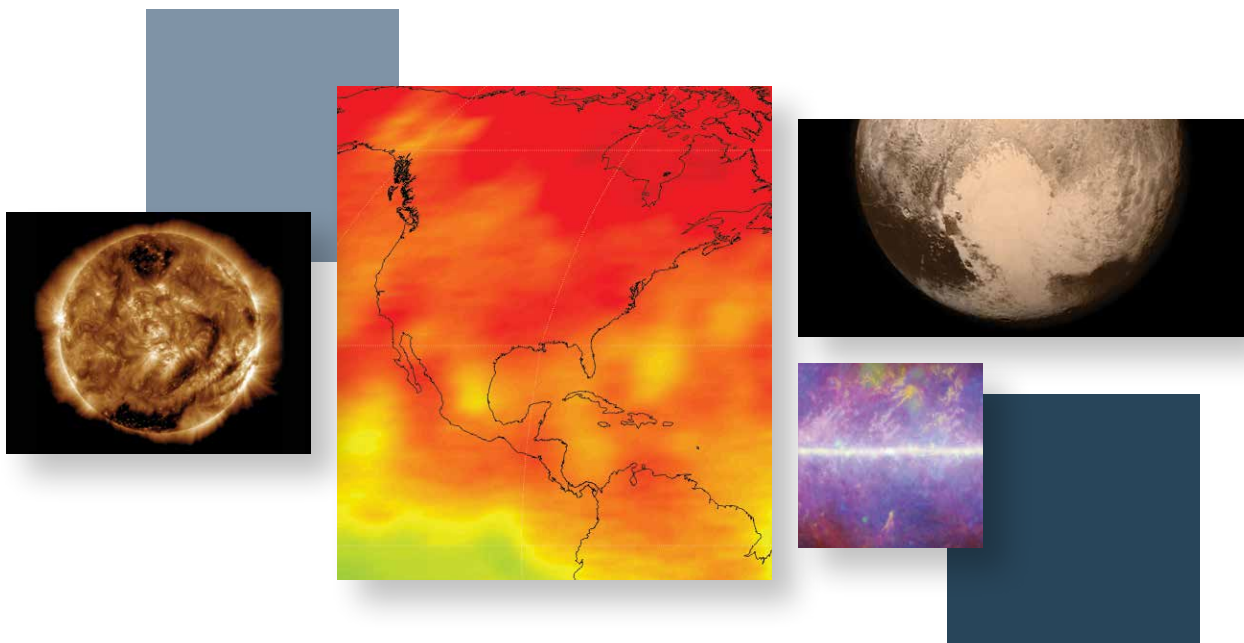
Tuesday, December 15		
9:45 - 10:00	NASA and Wildfires: Science and Technology Supporting the Nation	Dr. Vincent Ambrosia
10:00 - 10:15	Let's Go! NASA's "Eyes" Will Move You	Mr. Kevin Hussey
10:15 - 10:30	Cassini and Saturn's Rings	Dr. Linda Spilker
10:30 - 10:45	CALIPSO@10	Dr. Chip Trepte
10:45 - 11:00	2015 El Niño Event	Dr. David Halpern
11:00 - 11:15	Landsat and Sentinel 2	Dr. Jeff Masek
11:15 - 11:30	NASA Global Climate Observations: Discover How Satellites See Climate Change	Dr. Jack Kaye
1:00 - 3:00	In-Booth Science Flash Talks <i>Schedule on Page 4</i>	
3:30 - 3:45	Finding Human Landing Sites on Mars	Dr. Jim Green
3:45 - 4:00	NASA's Earth Observation Capabilities: Meeting the Challenges of Climate and Environmental Change	Dr. Michael Freilich
4:00 - 4:15	Solar System and Beyond	Dr. Michelle Thaller
4:15 - 4:30	Precipitation Viewed from Space	Dr. Gail Skofronick-Jackson
4:30 - 4:45	Sunny with a Chance of Solar Storms	Dr. Alex Young

Wednesday, December 16		
9:45 - 10:00	Watching the Earth Breathe: CO ₂ Measurements from the Orbiting Carbon Observatory-2 During Its First Year in Orbit	Dr. David Crisp
10:00 - 10:15	NASA's New Mars Trek	Mr. Brian Day
10:15 - 10:30	Disaster Management	Dr. David Green
10:30 - 10:45	NASA's Earth Observation Capabilities: Meeting the Challenges of Climate and Environmental Change	Dr. Michael Freilich
10:45 - 11:00	Aqua Going Strong	Dr. Lazaros Oreopoulos
11:00 - 11:15	Ocean Salinity	Dr. Eric Lindstrom
11:15 - 11:30	Global Climate Simulation in High Resolution	Dr. Bill Putman
11:30 - 11:45	NASA's Astronaut Geology Training Program: Constraints, Benefits, and Humbling Experiences	Dr. Dean Eppler
1:00 - 3:00	In-Booth Science Flash Talks <i>Schedule on Page 4</i>	
3:30 - 3:45	NASA Global Climate Observations: Discover How Satellites See Climate Change	Dr. Jack Kaye
3:45 - 4:00	GEO Global Agricultural Monitoring Initiative: Earth Observation in Support of Food Security and Stable Markets	Dr. Alyssa Whitcraft
4:00 - 4:15	GRACE Observations of Earth System Mass Change	Dr. Byron Tapley
4:15 - 4:30	SERVIR: Connecting Space to Village	Mr. Eric Anderson
4:30 - 4:45	The Icy Arctic	Dr. Thomas Wagner
4:45 - 5:00	The Sun, Space Weather, and the Future	Dr. Jeffrey Newmark

Hyperwall Presentation Agenda

Thursday, December 17		
Time	Presentation	Presenter
9:45 - 10:00	Observing Precipitation from Space	Dr. George Huffman
10:00 - 10:15	Wildfires and Smoke Emissions Around the World	Dr. Charles Ichoku
10:15 - 10:30	Research Activities at the Short-term Prediction Research and Transition (SPoRT) Center	Mr. Bradley Zavodsky
10:30 - 10:45	Observing Climate Change from Space	Dr. Martin Mlynczak
10:45 - 11:00	Sunny with a Chance of Solar Storms	Dr. Alex Young
11:00 - 11:15	NASA Health and Air Quality Applications	Mr. John Haynes
11:15 - 11:30	Stratospheric Ozone Recovery / World Avoided	Dr. Rich Eckman
1:00 - 3:00	In-Booth Science Flash Talks <i>Schedule on Page 4</i>	
3:30 - 3:45	NASA Technology, Observations, and Models Supporting Wildland Fire Science and Applications	Dr. Amber Soja
3:45 - 4:00	OCO-2 Updates	Dr. Ken Jucks
4:00 - 4:15	What About the Clouds?	Dr. Steve Platnick
4:15 - 4:30	Notable Changes in Air Pollution Around the World	Dr. Bryan Duncan

Friday, December 18		
10:00 - 10:15	Revisiting the Apollo 17 Landing Site	Dr. Noah Petro
10:15 - 10:30	Exploring NASA Earth Science Data	Mr. Daniel Oostru
10:30 - 10:45	Watching the Earth's Surface Change	Dr. Joel McCorkel



Flash Talks: Schedule-at-a-Glance

Tuesday, December 15		
Time	Presentation	Presenter
1:00 - 1:07	Rain and Snow around the Globe	Dr. George Huffman
1:10 - 1:17	Extending the Lunar Mapping and Modeling Portal – New Capabilities and New Worlds (DEMO)	Brian Day
1:20 - 1:27	Sensing Air Quality from Space with NASA DISCOVER-AQ	Dr. Andreas Beyersdorf
1:30 - 1:37	Rockets, Balloons, CubeSats, Oh My!	Dr. Jeffrey Newmark
1:40 - 1:47	Hydrology by GPS	Dr. Susan Owen
1:50 - 1:57	It AppEEARS MODIS is Analysis Ready!	Rob Quenzer
2:00 - 2:07	Using SMAP Soil Moisture Data to Estimate Rainfall Rates	Dr. Randal Koster
2:10 - 2:17	JunoCam: Science in a Fishbowl	Dr. Candy Hansen
2:20 - 2:27	Drones that See Through Waves – New Technologies in Ocean Remote Sensing	Dr. Ved Chirayath
2:30 - 2:37	CREATE-V: An Online Visualization Service for Exploring Climate Data (DEMO)	Dr. Jerry Potter
2:40 - 2:47	NASA MODIS Data and Visualizations in the Time it takes to Make Popcorn!	Suresh Vanaan

Wednesday, December 16		
1:00 - 1:07	Discover NASA's New Web Portal for Sea Level Change	Dr. Carmen Boening
1:10 - 1:17	Sifting through Granules: Enabling Earth Science Data Discovery through Earthdata Search	Patrick Quinn
1:20 - 1:27	Postcards from the Edge: How to Find and Use Imagery from Deep Space Missions	Phil Davis Bill Dunford
1:30 - 1:37	NASA Soil Moisture Active Passive (SMAP) Mission Status and Early Results	Dr. Simon Yueh
1:40 - 1:47	Remote Sensing at your Fingertips: The LandCast Mobile App (DEMO)	Rob Quenzer
1:50 - 1:57	The TIRCIS instrument: Hyperspectral Imaging from Small Satellites	Dr. Robert Wright
2:00 - 2:07	KIAsh (Kelud Ash) - NASA Balloon Campaign Studies Effects of Volcanic Eruption	Dr. Jean-Paul Vernier
2:10 - 2:17	FINESSE: Walking the Moon... in Idaho	Dr. Shannon Kobs Nawotniak
2:20 - 2:27	The Solar Cycle: Impacts Felt at Maximum AND Minimum	Dr. Lika Guhathakurta
2:30 - 2:37	Training the World to Use NASA data with ARSET	Brock Blevins
2:40 - 2:47	Metrics and Visualizations in the Astrophysics Data System	Edwin Henneken
2:50 - 2:57	"Taste" the Plumes of Enceladus, and more, with NASA's Eyes (DEMO)	Kevin Hussey

Thursday, December 17		
1:00 - 1:07	The Buzz about Bumblebee (DEMO)	Donna Thompson
1:10 - 1:17	Monitoring Landslides from Space	Dr. Dalia Kirschbaum
1:20 - 1:27	NASA's Airborne Missions from the Ends of the Earth (DEMO)	Steve Tanner
1:30 - 1:37	Peering into the Permanently Shadowed Regions of the Moon	Dr. Wes Patterson
1:40 - 1:47	Seeing What the Satellites See	Dan Pilone Emily Northup
1:50 - 1:57	How Dry is Dry? Assessing Drought Severity in the Navajo Nation (DEMO)	Vickie Ly
2:00 - 2:07	Imaging the Solar System at Spatial Scales varying by 12 Orders of Magnitude	Dr. Timothy Glotch
2:10 - 2:17	Rooting Out the Problem: Mesquite Trees' Effect on Estuary Health	Georgina Crepps
2:20 - 2:27	The Hole Ozone Story	Dr. Rich Eckman
2:30 - 2:37	CYGNSS: Measuring Surface Wind Speed in the Inner Core of Hurricanes from Space	Dr. Derek Posselt

Detailed Descriptions of Flash Talks

Time/Title	Description	Presenter
Tuesday, December 15		
1:00 - 1:07 Rain and Snow around the Globe	NASA scientists use almost a dozen satellites to keep track of rain and snow around the world. The weather is always doing something! Come see what the last week of rainfall and snowfall patterns look like close to home and in remote areas of the globe. See up-to-date movies of the rainfall that this year's El Niño is creating. Has it lived up to the forecasts?	Dr. George Huffman Research Meteorologist, Deputy Project Scientist for GPM, NASA GSFC
1:10 - 1:17 Extending the Lunar Mapping and Modeling Portal – New Capabilities and New Worlds (DEMO)	Explore new worlds with NASA's Lunar Mapping and Modeling Portal (LMMP)! This web-based Portal and a suite of interactive visualization and analysis tools enable mission planners, lunar scientists, and engineers to access mapped lunar data from past and current lunar missions (lmmp.nasa.gov). Join us to view the latest and greatest interface, serving up improved ways to access and visualize NASA planetary data! Fasten your seatbelt and join us on a virtual journey to the Moon, Vesta and Mars!	Brian Day Outreach Lead, NASA Solar System Exploration Research Virtual Institute, NASA Ames Research Center
1:20 - 1:27 Sensing Air Quality from Space with NASA DISCOVER-AQ	How is NASA improving the remote sensing of air quality? By employing multiple aircraft and ground instrumentation, studies have been conducted in regions of the U.S. that are currently in violation of federal air quality standards with the DISCOVER-AQ airborne campaign. Join us to hear more about campaign results and how these results will be used for an international constellation of geostationary satellite observations of air quality in the near future providing hourly observations over North America, Asia, and Europe.	Dr. Andreas Beyersdorf Research Scientist, NASA Langley Research Center
1:30 - 1:37 Rockets, Balloons, CubeSats, Oh My!	Ever wonder how NASA trains young scientists or how NASA tests new technologies? The NASA Heliophysics Low Cost Access to space program does all this and more. Through sub-orbital rockets, stratospheric balloons larger than a football field, and down to near-softball size CubeSats, the Heliophysics Division utilizes a wide variety of flight opportunities to do the forefront science of understanding how the sun interacts with Earth and the solar system and to also foster the science capabilities of tomorrow.	Dr. Jeffrey Newmark Heliophysics Program Scientist, NASA HQ
1:40 - 1:47 Hydrology by GPS	When signals from the GPS satellites are reflected off the ground into a receiving antenna, changes in signal strength allow us to determine snow depth, soil moisture, and vegetation growth. A CU Boulder prototype system (xenon.colorado.edu/portal) makes these measurements available for selected stations in the western U.S.. NASA's ESTO office is supporting JPL and CU Boulder to develop the technology to make this system for measuring hydrological variables.	Dr. Susan Owen Earth Surface and Interior Group Supervisor, NASA JPL
1:50 - 1:57 It AppEEARS MODIS is Analysis Ready!	Would you like to be able to subset MODIS land data products based upon point locations? NASA's Land Processes Distributed Active Archive Center (LP DAAC) has developed a web application that allows users to subset point based, study relevant, land remote sensing data. The Application for Extracting and Exploring Analysis Ready Samples (AppEEARS) provides an intuitive interface for accessing and extracting tiled MODIS data from the LP DAAC. Through AppEEARS, users can visualize and interact with extracted data values before download.	Rob Quenzer Software Engineer, NASA Land Processes Distributed Active Archive Center (DAAC)

Detailed Descriptions of Flash Talks

Time/Title	Description	Presenter
2:00-2:07 Using SMAP Soil Moisture Data to Estimate Rainfall Rates	<p>The NASA Soil Moisture Active-Passive (SMAP) satellite mission continues to provide high-quality estimates of soil moisture at the Earth's surface. By analyzing these data in conjunction with contemporaneous precipitation data, we can characterize the drying of the soil during periods of no rain. This characterization allows us to manipulate the SMAP soil moisture measurements into our own estimates of rainfall, estimates that are surprisingly accurate when compared against traditional rainfall products.</p>	Dr. Randal Koster Research Scientist, NASA GSFC
2:10 - 2:17 JunoCam: Science in a Fishbowl	<p>NASA's Juno spacecraft arrives at Jupiter in July 2016. Onboard the spacecraft is JunoCam, a color camera that will provide close-up views of Jupiter's poles for the first time. The public is an essential part of our virtual team: amateur astronomers will supply ground-based images and the public will help in planning and processing of images, carrying out steps ordinarily reserved for professional scientists.</p>	Dr. Candy Hansen Juno Co-Investigator, Planetary Science Institute
2:20 - 2:27 Drones that See Through Waves – New Technologies in Ocean Remote Sensing	<p>The use of small, unmanned aerial vehicles (UAVs, commonly known as drones) and experimental NASA-developed Fluid Lensing technology is presented as a novel means to image underwater marine ecosystems from above the ocean's surface, producing cm-scale imagery in three dimensions over tens of square kilometers. Fluid Lensing uses water-transmitting wavelengths to passively image underwater objects by exploiting time-varying optical lensing events caused by refractive distortions from traveling surface waves.</p>	Dr. Ved Chirayath Research Scientist, Earth Sciences Division, NASA Ames
2:30 - 2:37 CREATE-V: An Online Visualization Service for Exploring Climate Data (Demo)	<p>As part of the Collaborative REAnalysis Technical Environment (CREATE), NASA Climate Model Data Services has developed a unique online visualization tool for browsing through multiple reanalysis datasets. A reanalysis merges decades of observational data with a climate model. With CREATE-V climate and non-climate scientists can visualize reanalysis data while selecting variables, parameters, and color maps of interest. The tool will enable decision makers to investigate recent global climate changes through time, inspect model trends, and compare reanalysis datasets.</p>	Dr. Jerry Potter Senior Project Scientist, Climate Model Data Services, Computational and Information Sciences and Technology Office, NASA GSFC For information cde.nccs.nasa.gov/
2:40 - 2:47 NASA MODIS Data and Visualizations in the Time it takes to Make Popcorn!	<p>MODIS (Moderate Resolution Imaging Spectroradiometer) land data are highly useful for field research. However, the volume of MODIS data and the complexity of data format can make using the data challenging! The problem is solved by using the NASA ORNL DAAC MODIS Global Subsetting and Visualization Tool. This interface subsets, visualizes and delivers the subsetted MODIS data in a matter of minutes allowing the users to conduct preliminary data analysis very quickly. For example, subsets and visualization for a 7x7 km area, for a 15-year time series can be delivered in less than 3 minutes!</p>	Suresh Vanaan Manager, NASA Oak Ridge National Laboratory (ORNL) DAAC For information daac.ornl.gov/MODIS

Detailed Descriptions of Flash Talks (cont.)

Time/Title	Description	Presenter
Wednesday, December 16		
1:00 - 1:07 Discover NASA's New Web Portal for Sea Level Change (DEMO)	<p>How can we target today's challenges in sea level change research? A new web portal has been built to provide a one-stop shop for current NASA sea level data and information on sea level research. Through this portal, find out about the latest sea level research, explore data analysis tools and quickly visualize and compare NASA data, such as sea surface height, ocean temperatures, ice mass change, amongst others, on a global scale.</p>	Dr. Carmen Boening Research Scientist, NASA JPL, California Institute of Technology
1:10 - 1:17 Sifting through Granules: Enabling Earth Science Data Discovery through Earthdata Search	<p>NASA's myriad of Earth-observing platforms provide scientists with continuous streams of data; all focused on taking the pulse of our planet. The Earthdata Search tool provides state-of-the-art web client for discovering, searching, visualizing, and retrieving that Earth science data in an intuitive and engaging way. This demo will highlight Earthdata Search's capabilities; walking participants through the search interface and showcasing the ease of data access.</p>	Patrick Quinn Lead Developer, NASA Earthdata Search, Element 84, Inc.
1:20 - 1:27 Postcards from the Edge: How to Find and Use Imagery from Deep Space Missions	<p>Give us six minutes, and we'll give you the entire solar system. It's never been easier to find and use raw images and other data from the full range of deep space missions. This includes archives of historic data, as well as the latest pictures hot off the Deep Space Network. In this brief tool demo, we'll show you the latest and greatest ways to find the data. We'll also show how NASA, other agencies, and even members of the public are putting these images to spectacular use in creating interest in and explaining the latest planetary and Earth science.</p>	Phil Davis Web Producer, NASA Solar System Exploration Bill Dunford Science Writer, NASA Solar System Exploration
1:30 - 1:37 NASA Soil Moisture Active Passive (SMAP) Mission Status and Early Results	<p>NASA's Soil Moisture Active Passive (SMAP) mission was launched on January 31, 2015. The mission objective is to monitor the global surface state of the terrestrial water cycle. Soil moisture dynamics link the water, energy and carbon cycles over land. We present the latest observations and science applications of the mission data. The mission data are also being applied to derive novel new observations for ocean science and global ecology.</p>	Dr. Simon Yueh SMAP Project Scientist, NASA JPL
1:40 - 1:47 Remote Sensing at your Fingertips: The LandCast Mobile App (DEMO)	<p>To extend the reach of land remote sensing data to the public earth science community, NASA's Land Processes Distributed Active Archive Center (LP DAAC) has developed the LandCast mobile application. LandCast allows users to visualize a variety of the Earth's surface features over time and space. Users can immediately share visualizations with colleagues via social media or email. This talk will demonstrate all that LandCast has to offer as a data interaction and visualization tool.</p>	Rob Quenzer Software Engineer, NASA LP DAAC
1:50 - 1:57 The TIRCIS instrument: Hyperspectral Imaging from Small Satellites	<p>Hyperspectral imaging is being used to help understand the chemical composition of geologically relevant targets, including volcanic gas and ash clouds, and the mineralogy and chemistry of rocks and minerals. NASA is developing an instrument (TIRCIS) that uses a uncooled microbolometer and a Fabry-Perot interferometer to acquire hyperspectral images in the long-wave infrared.</p>	Dr. Robert Wright Associate Researcher, Hawaii Institute of Geophysics and Planetology

Detailed Descriptions of Flash Talks

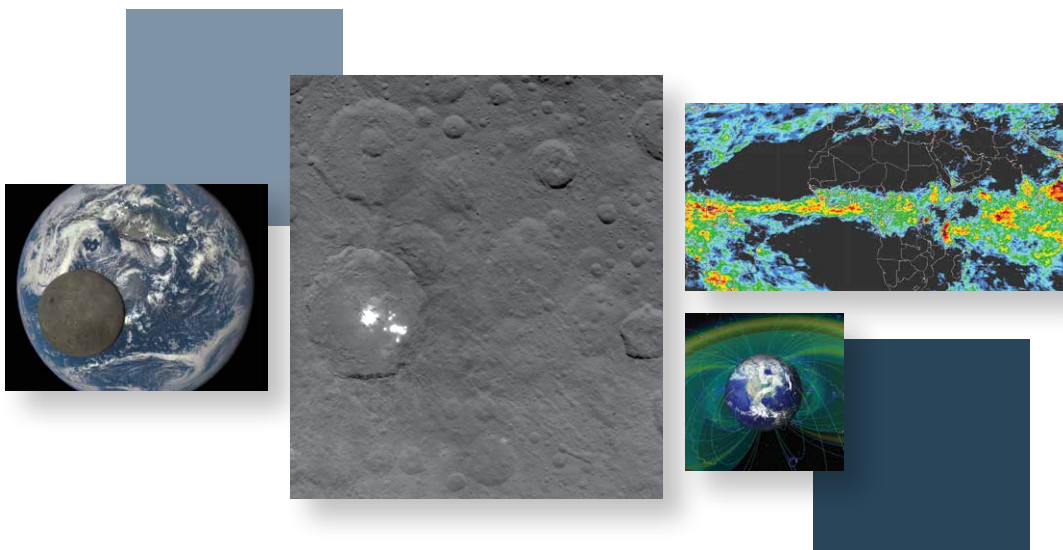
Time/Title	Description	Presenter
2:00 - 2:07 KIAsh (Kelud Ash) - NASA Balloon Campaign Studies Effects of Volcanic Eruption	<p>Volcanic events can have profound and important effects on climate and also interfere with human activities, for example, the presence of ash in flight corridors can have a crippling impact on aviation. In collaboration with the University of Wyoming and partnering with the Australian Bureau of Meteorology the KIAsh (Kelud Ash) experiment based in Darwin, Australia, a series of instrumented balloons were deployed in May 2014 to characterize particle sizes, composition, and optical properties from a volcanic plume in the stratosphere emanating from Mount Kelud, Indonesia.</p>	<p>Dr. Jean-Paul Vernier Research Scientist, Science Systems and Applications, Inc., NASA Langley Research Center</p>
2:10 - 2:17 FINESSE: Walking the Moon... in Idaho	<p>The volcanoes of Craters of the Moon National Monument, Idaho, provide an analog view into volcanic features on planetary bodies. Lava flows, blast pits, and rilles allow us to extrapolate terrestrial stories via field work, remote sensing, and modeling.</p>	<p>Dr. Shannon Kobs Nawotniak Assistant Professor, Idaho State University</p>
2:20 - 2:27 The Solar Cycle: Impacts Felt at Maximum AND Minimum	<p>Learn about the extremes of solar variability and how they affect life and society. Only a few years ago, the sun emerged from the deepest Solar Minimum in a hundred years. During this extreme quiet the solar wind became slow and weak; solar storms lost their punch; and cosmic rays hit a record high for the Space Age. Instead of a vigorous Solar Maximum in the 2010s, we experienced a “mini Solar Max” with fewer intense flares and fewer storms that impacted Earth’s technologies.</p>	<p>Dr. Lika Guhathakurta Program Scientist, Living with a Star</p>
2:30 - 2:37 Training the World to Use NASA data with ARSET	<p>NASA’s Applied Remote Sensing Training Program (ARSET), (arset.gsfc.nasa.gov) provides professional training worldwide. We help decision-makers navigate through the vast, freely available and open data resources; the ultimate goal is to develop the technical and analytical skills necessary to utilize NASA resources for decision-support. We reached +2000 stakeholders and +130 countries in 2015 alone. Upcoming trainings will cover topics including Advanced Tools for High Resolution Air Quality Satellite Data Sets and you can register for future trainings through our website.</p>	<p>Brock Blevins NASA ARSET Program, University of Maryland Baltimore County</p>
2:40 - 2:47 Metrics and Visualizations in the Astrophysics Data System	<p>The SAO/NASA Astrophysics Data System (ADS) is the digital library used by scientists worldwide to stay up-to-date with literature. The ADS also maintains a citation database. This makes the ADS an environment that is very suitable for calculating metrics. The ADS has developed both metrics and visualization services. These support both calculation of metrics and visualizations for individual researchers, but also for programs and instruments.</p>	<p>Edwin Henneken IT Specialist, Smithsonian Astrophysical Observatory</p>
2:50 - 2:57 “Taste” the Plumes of Enceladus, and more, with NASA’s Eyes (DEMO)	<p>Join our planetary explorers as they travel far and wide throughout our Solar System! Experience the first person drama of flying through the icy plumes of Enceladus, at over 19,000 miles an hour and under 30 miles from its surface, while “looking around” at the spectacular surroundings of Saturn. You will learn how simple it is to become an arm chair planetary explorer so you can be ready to join Juno as she enters orbit around Jupiter and Insight as she lands on Mars, both next year.</p>	<p>Kevin Hussey Manager, Visualization Technology Applications and Development, NASA JPL</p> <p>For information eyes.nasa.gov</p>

Detailed Descriptions of Flash Talks (cont.)

Time/Title	Description	Presenter
Thursday, December 17		
1:00 - 1:07 The Buzz about Bumblebee (DEMO)	<p>The NASA Astrophysics Data System (ADS) is a Digital Library portal containing the journal literature of astronomy and physics. Our new interface (nicknamed “Bumblebee”) has some exciting new updates that streamline your searching of our extensive database which includes journal literature used daily by geophysical researchers. Come and see some new searching tips! Even if you’ve used ADS in the past, you’ll be sure to appreciate the updates.</p>	Donna Thompson Librarian, Smithsonian Astrophysical Observatory
1:10 - 1:17 Monitoring Landslides from Space	<p>Landslides cause thousands of fatalities every year, result in billions of dollars in losses and occur in nearly every country in the world. Through satellite data, models and even the media we explore how we can evaluate this pervasive in near real-time! Learn about some of the exciting ways in which NASA is exploring where, when and how landslides impact our world.</p>	Dr. Dalia Kirschbaum Research Scientist, NASA GSFC
1:20 - 1:27 NASA's Airborne Missions from the Ends of the Earth (DEMO)	<p>The Operation IceBridge Development Team at the NASA National Snow and Ice Data Center Distributed Active Archive Center (NSIDC DAAC) is developing a new IceBridge data portal that takes full advantage of the metadata now being generated. Using an interactive map built to highlight the IceBridge flights in the Arctic and Antarctic and the data they gathered, users can quickly find, select and download the products they need. The Beta version of the portal will be shown.</p>	Steve Tanner IceBridge and ICESat-2 Data Manager, NASA National Snow and Ice Data Center DAAC
1:30 - 1:37 Peering into the Permanently Shadowed Regions of the Moon	<p>The Miniature Radio Frequency (Mini-RF) instrument on NASA's Lunar Reconnaissance Orbiter (LRO) is a Synthetic Aperture Radar (SAR) capable of illuminating and measuring the characteristics of regions of the Moon that are permanently shadowed from the Sun. The information provided by these measurements is casting a new light on these elusive regions and will feed future NASA exploration goals.</p>	Dr. Wes Patterson Mini-RF Principal Investigator, Johns Hopkins University Applied Physics Laboratory
1:40 - 1:47 Seeing what the Satellites See	<p>The Global Imagery Browse Services (GIBS) provide a rich visual interface to NASA's extensive collection of Earth science data products. Web mapping interfaces such as NASA's Worldview and State of the Oceans utilize GIBS to access near real-time and historical satellite imagery of high-value geophysical parameters (temperature, rainfall, reflectance) from a growing number of instruments (MODIS, AIRS, GPM). Join us to learn how these services may benefit you!</p>	Dan Pilone EED-2 Chief Technologist, NASA GSFC / Element 84, Inc. Emily Northup Associate Scientific Analyst, NASA LaRC DAAC

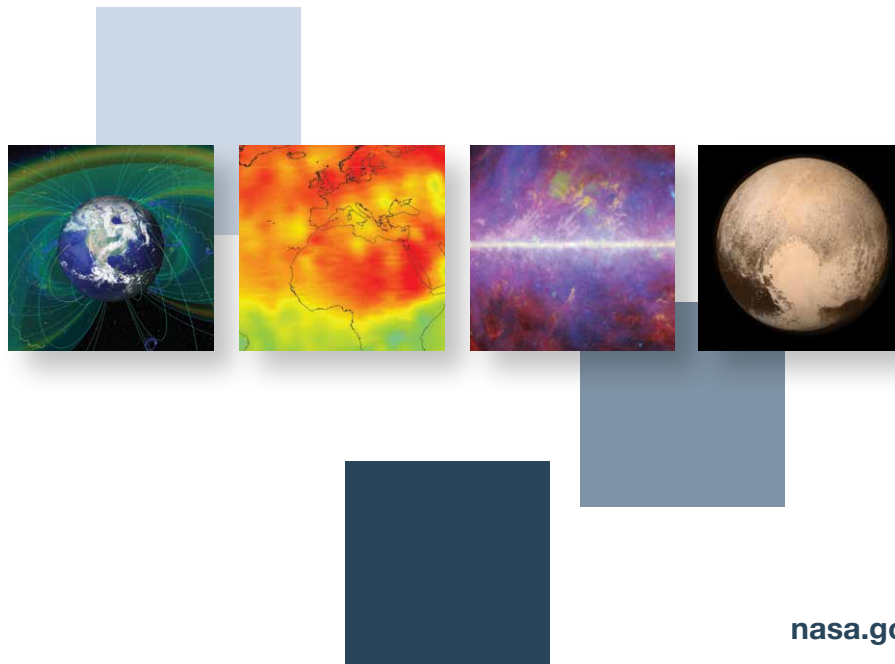
Detailed Descriptions of Flash Talks

Time/Title	Description	Presenter
1:50 - 1:57 How Dry is Dry? Assessing Drought Severity in the Navajo Nation (DEMO)	Severe drought events, climate change, and the lack of water infrastructure and economic resources has impacted water resource management in the Navajo Nation. To better monitor drought regime changes, this project created a decision support tool to calculate average Standardized Precipitation Index values for user-specified areas. With the tool, Navajo Nation resource managers will be able to use NASA Earth observation data for increased decision-making capacity on the impact of climate change on water resources.	Vickie Ly Fellow, NASA DEVELOP Program, NASA Ames Research Center
2:00 - 2:07 Imaging the Solar System at Spatial Scales varying by 12 Orders of Magnitude	The RIS4E team is advancing the science and future exploration of the Moon, Near Earth Asteroids, Phobos, and Deimos. We study satellite data encompassing broad swaths of planetary surfaces and conduct laboratory analyses of extraterrestrial materials down to < 1 Angstrom. Find out how we are learning about the Solar System at spatial scales that vary by over 12 orders of magnitude.	Dr. Timothy Glotch Associate Professor of Geosciences, Stony Brook University
2:10 - 2:17 Rooting Out the Problem: Mesquite Trees' Effect on Estuary Health	This project partnered with the National Park Service to address concerns regarding the salinity of the Laguna Madre in the Padre Island National Seashore. NASA Earth observation data were utilized to analyze precipitation, land cover, root zone soil moisture, and thermal imagery of the lagoon. These products were ultimately used to understand the suspected positive correlation between the increased salinity of the lagoon and the increased occurrence of mesquite trees in the surrounding area.	Georgina Crepps Impact Analysis Senior Fellow, NASA DEVELOP Program, NASA LaRC
2:20 - 2:27 The Hole Ozone Story	The discovery of the Antarctic ozone hole in 1985 led to unprecedented efforts to understand its cause and impacts. Accurate measurements led to global action - the Montreal Protocol has resulted in dramatic decreases of ozone-depleting substances. Satellite-based observations play a vital role in assessing the state of the ozone layer and the SAGE III instrument to be launched next year will continue that role from the International Space Station.	Dr. Rich Eckman Program Manager, Atmospheric Composition Modeling & Analysis Program
2:30 - 2:37 Measuring Surface Wind Speed in the Inner Core of Hurricanes from Space	Winds and wind-driven storm surge cause most of the catastrophic damage in land-falling hurricanes, yet current satellites are unable to sense winds near the storm center. The Cyclone Global Navigation Satellite System (CYGNSS) will launch in October 2016, and will measure previously unobservable surface winds in and near the inner core of hurricanes. This information will help to improve model forecasts of hurricane intensity, aiding in protecting human health and welfare.	Dr. Derek Posselt University of Michigan



NASA's Vision

To reach for new heights and reveal
the unknown so that what we do and
learn will benefit all humankind.



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