JACIE 2024 Workshop Agenda

March 11, 2024		Monday Morning
		All times are in Eastern US Time Zone
Closed to Public	**9:00 - 11:30**	**JACIE Stakeholder Meeting**
Registration	9:00 - 12:00	**Attendee Registration at Entrance**
Optional	**9:00 - 12:00**	**Vendor/Poster Setup in Art Hallway** **** vendors can store items in Room IC113 in the evening****
		Monday Afternoon
		All sessions will be held in the USGS Dallas Peck Auditorium & all times are in Eastern US Time Zone
Welcome Address	12:30 - 12:45	**JACIE 2024 Welcome Address:** Cody Anderson, USGS
Agency 1 Session **Chairs:** **Greg Snyder, USGS** **& Dave Case, NGA**	12:45 - 1:00	**USGS Update:** Geoff Plumlee, USGS
	1:00 - 1:15	**NRO Update:** Peter Muend, NRO-CSPO
	1:15 - 1:30	**NOAA Update:** Satya Kalluri, NOAA
	1:30 - 1:45	**NGA Update:** Frank Avila, NGA
	1:45 - 2:00	**Update of NASA's Commercial Smallsat Data Acquisition Program:** Dana Ostrenga, NASA
	2:00 - 2:15	**ESA Update:** Valentina Boccia, ESA
	2:15 - 2:30	**USDA Update:** Bob Tetrault, USDA
	2:30 - 3:00	**Agency 1 Panel**
	3:00 - 3:15	Break
Agency 2 Session **Chairs:** **Greg Snyder, USGS** **& Dave Case, NGA**	3:15 - 3:30	**VH-RODA 2023 Summary:** Leonardo De Laurentiis, ESA
	3:30 - 3:45	**VH-RODA/JACIE Joint Update:** Valentina Boccia, ESA & Jim Vrabel, USGS EROS ITC
	3:45 - 4:00	**CAC Update:** Dan Opstal, USGS/CAC
	4:00 - 4:15	**Maturity Assessment of the Emerging Copernicus Contributing Missions:** Thomas Miraglio, OPT-MPC
	4:15 - 4:30	**Perspectives on Data Harmonization:** Pete Doucette, USGS
	4:30 - 5:00	**Agency 2 Panel**
Networking Event at USGS Reston (Art Hallway) **5:00 - 7:00 pm**		

March 12, 2024		Tuesday Morning
		All sessions will be held in the USGS Dallas Peck Auditorium & all times are in Eastern US Time Zone
Optional	**7:30 - 8:30**	**Vendor/Poster Setup in Art Hallway ** vendors can store items in Room IC113 in the evening****
Active Sensor (SAR, LiDAR) Session **Chairs:** **Batu Osmanoglu, NASA** **& Brian Feathers, NGA**	8:30 - 8:45	**InSAR at scale: how low-cost, wide area processing enabled adoption in insurance underwriting:** Rob McEwan, KorrAI
	8:45 - 9:00	**Leveraging Enhanced Resolution SAR Processing to Improve Signature Identification:** Jeff Pennings, Wolverine Radar
	9:00 - 9:15	**The SAR Quality Score:** Thomas Ager, TomAger LLC
	9:15 - 9:30	**Utilizing ICEYE SAR for Improving Disaster Response and Resilience:** Garry Engle & Mike Bennett, ICEYE US
	9:30 - 9:45	**Development of a Low-Cost, High-Resolution Commercial SAR Constellation:** Paul Woodford, Umbra
	9:45 - 10:15	**Active Sensor (SAR, LiDAR) Panel**
	10:15 - 10:30	Break
New Systems 1 Session **Chairs:** **Greg Stensaas, USGS** **& Valentina Boccia, ESA**	10:30 - 10:45	**Overview of Pixxel's Hyperspectral Constellation: Unprecedented Volumes of Spaceborne Hyperspectral Data:** Logan Wright, Pixxel
	10:45 - 11:00	**Benefits of Intra-Daily and Daily Monitoring:** Matthew Falter, BlackSky
	11:00 - 11:15	**Absolute Radiometric Calibration Activities for CAS 500-1 Satellite Program:** Kyoungwook Jin, Korea Aerospace Research Institute
	11:15 - 11:30	**Hydrosat Longwave Infrared Imager: Onboard Calibration and Uncertainty Budget:** William Thomas, Hydrosat
	11:30 - 12:00	**New Systems 1 Panel**
	12:00 - 12:15	**Group Picture on Dallas Peck Auditorium Stage**
		Tuesday Lunch
	12:15 - 1:15	Lunch & Poster/Vendor Viewing
Optional	**12:15 - 2:00**	**Side Meeting hosted by Thomas Ager: The Geometric Modeling and Accuracy of SAR Images** **Location: Room 1B215**
		Tuesday Afternoon
		Afternoon Sessions Begin at 1:15 pm following lunch
Cal/Val 1 Session **Chairs:** **Leonardo De Laurentiis, ESA** **& Cody Anderson, USGS**	1:15 - 1:30	**Inter-Comparison of S-NPP/NOAA-20/NOAA-21 VIIRS Solar Reflective Bands with JPL EMIT Observations:** Wenhui Wang,CISESS/University of Maryland, College Park
	1:30 - 1:45	**Calibration and Processing of xScape Imagery:** Wolfgang Lueck, EOIntelligence LTD
	1:45 - 2:00	**SuperDove Cross-Calibration for Aquatic Science and Applications:** Sakib Kabir, Freshwater Sensing Program - SSAI
	2:00 - 2:15	**Compact Jones Calibration Source for next generation Earth Observation imaging satellites in the VNIRSWIR and MWIR – The Improved Radiometric Calibration of Imaging Systems (IRIS) High-performance Integrated Flat Illuminator (HIFI):** Dan Scharpf, Labsphere Inc.
	2:15 - 2:30	**One-Year Performance Evaluations of NOAA-21 Visible Infrared Imaging Radiometer Suite (VIIRS):** Taeyoung (Jason) Choi, NOAA/GST
	2:30 - 2:45	**New and Expected Trends in Calibration and Validation of Sensing Systems: Need for a Paradigm Shift:** Raad A. Saleh, NOAA/NESDIS System Architecture and Engineering
	2:45 - 3:15	**Cal/Val 1 Panel**
	3:15 -3:30	Break
Cal/Val 2 Session **Chairs:** **Leonardo De Laurentiis, ESA** **& Cody Anderson, USGS**	3:30 - 3:45	**A vacuum-compatible, spectrally tune-able, Flat Panel Uniform Source for testing large aperture earth observation systems:** Daniel Sharpf, Labsphere, Inc.
	3:45 - 4:00	**Cal/Val Park: fostering innovation and international cooperation in the Cal/Val domain:** Fabrizio Niro, SERCO-ESA
	4:00 - 4:15	**Assessment of Sensor Footprint Size and Comparison of Commercial Smallsat Images:** Alana Semple, SSAI/NASA
	4:15 - 4:30	**System Characterization Report on the Pléiades Neo Imager:** Simon Cantrell, USGS EROS-KBR
	4:30 - 4:45	**Landsat 8 L1T Product Radiometric Pixel Uncertainty:** Mary Pagnutti, I2R
	4:45 - 5:15	**Cal/Val 2 Panel**

No-Host Dinner at Sully's Pour House
754 Elden St STE 102, Herndon, VA 20170
Tuesday, March 12th at 5:30 - 7:30 pm

March 13, 2024		Wednesday Morning
		All sessions will be held in the USGS Dallas Peck Auditorium & all times are in Eastern US Time Zone
Tools 1 Session **Chairs:** **Brian Feathers, NGA** **& Dath Mita, USDA**	8:30 - 8:45	**Estimation of the Point Spread Function of a Large GSD Satellite Sensor:** Minsu Kim, USGS EROS-KBR
	8:45 - 9:00	**Verifying Image Quality Between Instruments as EO Aerial and Space ased Systems Expand:** Greg Terrie, NV5
	9:00 - 9:15	**System Considerations for Hyperspectral Sub-pixel Target Detection:** John Kerekes, Rochester Institute of Technology
	9:15 - 9:30	**State-of-the-Art Time Series-Based Multi-Source Datacubes for Improved Change Detection:** Mary Pagnutti, I2R
	9:45 - 10:15	**Tools 1 Panel**
	10:15 - 10:30	Break
Tools 2 Session **Chairs:** **Brian Feathers, NGA**	10:30 - 10:45	**Evaluating Multi-Sensor Earth Observation Datasets with Cloud- Computing Automation:** Christopher Barber, USGS EROS
	10:45 - 11:00	**CIDR Image Ordering Tool Updates:** Peter Rinkleff, USGS-NCAC
	11:00 - 11:15	**EMIT Radiometric and Geometric Evaluation Abstract:** Ajit Sampath, USGS EROS-KBR
	11:15 - 11:45	**Tools 2 Panel**
		Wednesday Lunch
	11:45 - 12:45	Lunch & Poster/Vendor Viewing
Optional	**11:45 - 1:45**	**Assessments & Tools Side Meeting by USGS EROS Team** **Location: Room 1C113** **What will be covered: Briefings and demos of several USGS image assessment tools**
		Wednesday Afternoon
		Afternoon Sessions Begin at 12:45 pm following lunch
Algorithm, Processing, & AI/ML Session **Chairs:** **Dath Mita, USDA** **& Everett Hinkley, USDA**	12:45 - 1:00	**Enhancing Satellite Image Resolution with Deep Learning:** Todd Jobe, BAE Systems
	1:00 - 1:15	**Digital Twins, The Metaverse: Impact on Geospatial Industry in Developing Nations:** Shawana Johnson, Global Insights
	1:15 - 1:30	**Assessing Cubist-based Machine Learning for Improving Image Products:** Francois G F. Smith, Maxar
	1:30 - 1:45	**Quantifying Image Quality Attributes for Training and Testing of Machine Learning Methods:** Sam Vilt, MITRE
	1:45 - 2:00	**Comparing Apples in a Sea of Oranges: the influence of VHR satellite image product type and pre-processing on the detection of marine mammals:** Kimberly Goetz, NOAA-Alaska Fisheries Science Center-Marine Mammal Lab
	2:00 - 2:15	**Seeing the World in Real-Time with Automated Land Use Mapping:** Steven Brumby, Impact Observatory & Sandra Brusiloff, NGA
	2:15 - 2:30	**Planet Automated Quality Control:** Adrian Gonzalez, Planet PBC
	2:30 - 3:00	**Algorithm, Processing, & AI/ML Panel**
	3:00 - 3:15	Break
Lightning Talks Session **Chairs:** **Cody Anderson, USGS** **& Jeff Clauson, USGS**	3:15 - 3:20	**Case Study and Methodology for Validation of Aircraft-Induced Clouds from Hyperspectral Imagery:** Amy Tal Rose, George Mason University
	3:20 - 3:25	**AssetAssurance Monitoring Update:** John Metzger, AssetAssurance Monitoring LLC
	3:25 - 3:30	**Systems and Methods for Ground Truthing Forest Inventory Analysis:** Zoë Kabachnik, Four Resolutions Incorporated
	3:30 - 3:35	**Persistent Geospatial Identification: from DOIs to geoDOIs:** Ignacio Zuleta, ARD Workshop & SuperPixel Corporation PBC
	3:35 - 3:40	**Angstrom: An Imaging Star Photometer:** Bob Ryan, I2R
	3:40 - 3:45	Quick Break
New Systems 2 Session **Chairs:** **Valentina Boccia, ESA** **& Greg Stensaas, USGS**	3:45 - 4:00	**Calibrating is Really Hard … and Here is Why We Care About It:** Keith Beckett, EarthDaily Analytics
	4:00 - 4:15	**First Light Imagery and Image Quality from HotSat-1, the first satellite in SatVu's constellation:** James O'Connor, SatelliteVu
	4:15 - 4:30	**Planned Radiometric and Geometric Correction Procedures for the HiVE VNIR / TIR Constellation of Satellites:** Ellis Freedman, Constellr
	4:30 - 5:00	**New Systems 2 Panel**
		Happy Hour at Jackson's Mighty Fine Food and Lucky Lounge **11927 Democracy Dr, Reston, VA 20190** **Wednesday, March 13th at 5:00 - 7:00 pm**

March 14, 2024		Thursday Morning
		All sessions will be held in the USGS Dallas Peck Auditorium & all times are in Eastern US Time Zone
Hyperspectral Session **Chairs:** **Jeff Clauson, USGS** **& Mark Bowman, NRO-CSPO**	8:30 - 8:45	**GHGSat Methane Constellation: Validation and Performance Metrics:** Jason McKeever, GHGSAT Montreal
	8:45 - 9:00	**Not as Dirty as They Look: flawed spectral measurements of bright surfaces:** Edward (Ned) Bair, Leidos Inc.
	9:00 - 9:15	**On-Orbit Calibration and Characterization of the Launched OSK GHOSt Hyperspectral Sensors:** Lee C. Sanders, Orbital Sidekick Inc.
	9:15 - 9:30	**Methods and Challenges for Calibrating Pixxel's Hyperspectral Smallsats:** Sarvani Bhamidi, Pixxel
	9:30 - 9:45	**Wyvern's Dragonette Satellite Constellation: Calibration Methodologies and Hyperspectral Imagery Data Products:** Chad Bryant, Wyvern
	9:45 - 10:00	**Preparing for Launch: Calibration and Radiance Processing for Planet's Hyperspectral Constellation:** Dominic LeDuc, Planet Labs
	10:00 - 10:15	**Hyperspectral Moderate Resolution Night Light Observations using DESIS:** Bob Ryan, I2R
	10:15 - 10:45	**HSI Panel**
	10:45 - 11:00	Break
Standards, Specs, & Format Session **Chairs:** **Mark Bowman, NRO-CSPO** **& Dave Case, NGA**	11:00 - 11:15	**IEEE Geoscience and Remote Sensing Standards Overview:** George Percivall & Surajit Ghosh, IEEE GRSS Standards for Earth Observation Technical Committee
	11:15 - 11:30	**Commercial Imagery Product Upgrades for Electro-Optical NITF Files:** E. Veronica Morales, L3Harris
	11:30 - 11:45	**A Review on Sensor Spatial Resolution and a Discussion on Geometric Specifications:** Guoqing (Gary) Lin
	11:45 - 12:15	**Standards, Specs, & Format Panel**
		Thursday Lunch
	12:15 - 1:15	*Lunch & Poster/Vendor Viewing*
Optional	**12:15 - 2:00**	**HSI Side Meeting by USGS EROS Team** **Location: Room 1B215** **What will be covered: USGS results for several HSI assessments**
		Thursday Afternoon
		Afternoon Sessions Begin at 1:15 pm following lunch
Topography, Geolocation, DEMs Session **Chairs:** **Mike Choate, USGS** **& Esad Micijevic, USGS**	1:15 - 1:30	**Improvements to the geolocation methodology of imagery from a variety of constellations at Planet:** Eric Peters, Planet Labs
	1:30 - 1:45	**Shape from spectra: percise estimation of topography from hyperspectral remote sensing:** Nimrod Carmon, Jet Propulsion Laboratory, California Institute of Technology
	1:45 - 2:00	**Optimizing DSM generation from spaceborne VHR imagery:** Jordan A. Caraballo-Vega, NASA
	2:00 - 2:15	**Evaluation of Modern Commercial Satellite VHR Optical Stereo Imaging Capabilities and Products:** David Shean, University of Washington
	2:15 - 2:30	**The Geometric Calibration of Pixxel's Satellite Constellation:** Aligning the Hyperspectral Stack: Byron Smiley, Pixxel
	2:30 - 2:45	**Large-scale Terrain Modeling by Combing Space Lidar Measurements:** Jie Shan, Purdue University
	2:45 - 3:15	**Topography, Geolocation, DEMs Panel**
Closing Remarks	**3:15 - 3:30**	**JACIE 2024 Closing Remarks: Cody Anderson, USGS**

March 15, 2024		Friday Morning
		The Uncertainty Workshop will be held in the USGS Dallas Peck Auditorium. All times are listed in Eastern US Time Zone
Uncertainty Workshop	8:00 - 12:00	This Uncertainty Workshop will focus on radiometric uncertainty of Top of Atmosphere (TOA)/Level 1, passive, reflective, optical imagery. With presentations covering Prelaunch Characterization (Lab Measurements), Vicarious Calibration (RadCalNet), Processing Chain (Raw-to-TOA Product), and Cross Calibration (Product-to-Product) Uncertainty contributors and estimates. Format is intended to allow equal time for presentations and audience participated discussion.