Joint Agency Commercial Imagery Evaluation
NASA • NGA • NOAA • NRO • USDA • USGS
JACIE

JACIE 2025 Workshop Agenda

Monday Morning

All times are in Eastern US Time Zone

Required	**9:00 - 12:00**	**Attendee Registration at Entrance**
Optional	**9:00 - 12:00**	**Uncertainty Workshop** **Registration Required**
Optional	**9:00 - 12:00**	**Exhibit/Poster Setup in Art Hallway** **** Exhibitors 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	1:00 - 1:15	**JACIE 2025 Welcome Address:** Cody Anderson, USGS
Agency 1 Session **Chairs: Cody Anderson, USGS & Dan Opstal, USGS**	1:15 - 1:35	USGS Agency Update: Jennifer Lacey, USGS
	1:35 - 1:55	NASA Agency Update: Melissa Martin, NASA
	1:55 - 2:15	NGA Agency Update: Jeffrey "JT" Thomas, NGA
	2:15 - 2:35	~~USDA Agency Update: USDA Spokesperson~~
	2:35 - 2:55	NRO Commercial Systems Program Office (CSPO) 2025 Update: Mark Bowman & Andrew Gizinski, NRO/CSPO
	2:55 - 3:15	NOAA Agency Update: Natalie Laudier, NOAA
	3:15 - 3:30	**Break**
Agency 2 Session **Chairs: Melissa Martin, NASA & Mark Bowman, NRO/CSPO**	3:30 - 3:45	CAC Update: Dan Opstal
	3:45 - 4:00	ESA Update: Valentina Boccia, ESA
	4:00 - 4:15	ECCOE and CEOS WGCV Update: Cody Anderson, USGS
	4:15 - 4:30	VH-RODA Summary: Leonardo de Laurentiis, ESA
	4:30 - 4:45	Joint ESA/USGS Talk: Valentina Boccia, ESA, & Jim Vrabel, USGS-EROS ITC
	4:45 - 5:00	Pecora XXIII and USGS Partnerships: Tim Glynn, USGS
	5:00 - 5:30	**Agency 1 & 2 Panel**
	5:30 - 5:45	**Group Picture in Dallas Peck Auditorium**

Networking Event at USGS Reston (Art Hallway)
Monday, April 7th at 5:45 - 7:45 pm

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**	**Exhibit/Poster Setup in Art Hallway** **** Exhibitors can store items in Room IC113 in the evening****

New & Future Systems 1 Session **Chair: Sarah Brothers, NOAA & Jim Vrabel, USGS-EROS ITC**	8:30 - 8:45	Shallow Water Bathymetry Using the High-Resolution Dragonette Satellite Constellation: Ellie Jones, Wyvern Inc.
	8:45 - 9:00	Case Study on the Influence of Pavement Areas and Riverside Walkaways on Heat: Srini Dharmapuri, Sanborn
	9:00 - 9:15	Hyperspectral OSK GHOSt Sensor Calibration Methodology and Refinements Using RadCalNet Data: Lee Sanders, Orbital Sidekick Inc.
	9:15 - 9:30	Developments in the Umbra SAR constellation: Paul Woodford, Umbra
	9:30 - 9:45	ESA's Engagement with 3rd Party Missions: Sebastien Saunier, ESA
	9:45 - 10:00	ESA's Engagement with Copernicus Contributing Missions: Simon Rommelaere, ESA
	10:00 - 10:15	**Break**
AI & Automation Session **Chairs: Katie Ruslander, USGS-EROS KBR & Cody Anderson, USGS**	**10:15 - 10:45**	**Keynote** **AI Transformers: transforming how we think about data integration: Pete Doucette, USGS**
	10:45 - 11:00	Accuracy Testing of High-Resolution Orthoimagery using 3D Surface Models and Open-Source Software: Mark Abrams, Exquisite Geolocation Systems
	11:00 - 11:15	Understanding the Challenges of 3D Mesh Generation from Satellite: Brian Connolly, ESRI
	11:15 - 11:30	From Pixels to Marine Mammals: Enhancing animal detection by applying open source processes to basic satellite imagery: John Wall, NOAA
	11:30 - 11:45	Analysis of African Elephants Using Commercial Remote Sensing Data: Thomas Schill, MITRE
	11:45 - 12:00	High Density Remote Sensing Data for People and Artificial Intelligence: Thomas Chrien, Matter Intelligence, Inc
	12:00 - 12:30	**AI & Automation Panel**
Tuesday Lunch		
	12:30 - 1:30	**Lunch & Poster/Vendor Viewing**
Optional	**12:45 - 1:45**	**NOAA Commercial Remote Sensing Regulatory Affairs (CRSRA) Side Meeting** **Room: 1B215**
Tuesday Afternoon		
Afternoon Sessions Begin at 2:00 pm following lunch		
Standards, Formats, and Specifications Session **Chairs: Jeff Clauson, USGS & Dave Case, NGA**	2:00 - 2:15	Enabling USGS System Characterization and EDAP+ Validation Interoperability: Jeff Clauson, USGS
	2:15 - 2:30	Satellite Data Quality Initiatives Coordinated by the Committee on Earth Observation Satellites: Medhavy Thankappan, Geoscience Australia
	2:30 - 2:45	Future Advances in Commercial Imagery Products: Barbara Eckstein, L3Harris and Jeff Snyder, NGA
	2:45 - 3:00	A holistic approach to ensuring quality and consistency in CEOS-ARD surface reflectance products: Medhavy Thankappan, Geoscience Australia
	3:00 - 3:15	**Break**
	3:15 - 4:15	**Spectral National Imagery Transmission Format (NITF) Implementation Profile (SNIP) Side Meeting** **Hosted by NGA** **Room: 1B215**
	3:15 - 3:30	Advances in Thermal Infrared Earth Observation: The FOREST-2 and OTC-P1 Missions' Contributions to Wildfire Detection and Surface Temperature Monitoring: Julia Gottfriedsen, OroraTech GmbH

Thermal Session **Chairs: Valentina Boccia, ESA & Esad Micijevic, USGS**	3:30 - 3:45	HotSat radiance estimates using cross calibration with VIIRS and atmospheric forecasts from GEOS: James O'Connor, SatVu
	3:45 - 4:00	The constellr HiVE constellation: Commissioning and planned CAL/VAL activities towards a 2 Kelvin accuracy Surface Temperature (ST) Product: Andreas Brunn, Constellr
	4:00 - 4:15	constellr HiVE high resolution thermal data for urban and agricultural monitoring: Andreas Brunn, Constellr
	4:15 - 4:30	RIT's open-source platform to provide near real-time validation of the Thermal Infrared Sensors (TIRS) onboard Landsat-8 and Landsat-9: Rehman Eon, Rochester Institute of Technology (RIT)
	4:30 - 5:00	**Thermal Panel**
No-Host Dinner at Sully's Pour House 754 Elden St STE 102, Herndon, VA 20170 Tuesday, April 8th at 5:30 - 7:30 pm		
Wednesday Morning		
All sessions will be held in the USGS Dallas Peck Auditorium & all times are in Eastern US Time Zone		
Resources for Data Quality Session **Chairs: Dana Ostrenga, NASA & Gerry Peltzer, NOAA**	8:30 - 8:45	Leveraging the DIRSIG model to simulate proxy data for LandIS instrument and science studies: Aaron Gerace, Rochester Institute of Technology
	8:45 - 9:00	Optimal Estimation for Retrievals and Uncertainty Quantification in Remote Sensing: Nimrod Carmon, JPL
	9:00 - 9:15	Updated Absolute Radiometric Calibration for the Maxar Earth-Observing Fleet: Tina Ochoa, Maxar
	9:15 - 9:30	Radiometric Calibration and Surface Reflectance Validation using RadCaTS: Jeffrey Czapla-Myers, University of Arizona
	9:30 - 9:45	**Break**
Active Sensors (SAR, LiDAR) **Chairs: Nimrod Carmon, JPL & Dana Ostrenga, NASA**	9:45 - 10:00	ICESat-2 Mission Status and Overview: Nathan Kurtz, NASA
	10:00 - 10:15	Capella Space 2025: Tom Repetti, Capella Space
	10:15 - 10:30	ICEYE's Ground Track Repeat (GTR) Orbits for Coherent Change Detection (CCD): Alvah Bickner, ICEYE
	10:30 - 10:45	~~Accuracy Testing and Application Suitability Testing of Open Sources DEMs for Urban Planning and Route Alignment Selection in Ethiopia: Zenabu Sisay, Bahir Dar University, Institute of Land Administration~~
	10:45 - 11:00	Airbus Space Reference Points (SRPs) - Precise 3D information over any location on Earth: Michael Tonon, Airbus & Mathilde Jaussaud, IGN
	11:00 - 11:15	Methods for evaluating the utility of 3D data from satellite images: Christina Selby, Johns Hopkins University Applied Physics Laboratory
	11:15 - 11:30	An open-source radargrammetry pipeline for 3D terrain reconstruction using commercial SAR images: David Shean, University of Washington
	11:30 - 12:00	**Active Sensors Panel**
Wednesday Lunch		
	12:00 - 1:00	**Lunch & Poster/Vendor Viewing**
Optional	**12:15 - 1:15**	**Data Quality Framework, Guidelines, and Best Practices Side Meeting Hosted by NASA Room: 1B215**
Wednesday Afternoon		
Afternoon Sessions Begin at 1:30 pm following lunch		
Lightning Talks Session **Chairs: Leonardo De Laurentiis, ESA & Cody Anderson, USGS**	1:30 - 1:35	Advancing GEOINT with the EarthDaily Constellation: KC Kroll, Descartes Labs Government
	1:35 - 1:40	A technical dive into India's first commercial edge computing mission: Arya Pratap Singh, Kaleideo Space Systems
	1:40 - 1:45	CSDA Analysis for Characterizing Canopy Chlorophyll and Photosynthetic Productivity for Agricultural and Forest Monitoring: Petya Campbell, GSFC & UMBC
	1:45 - 1:50	DEM Creation from Enhanced Resolution Sentinel 1 SLC Products: Jeff Pennings, Wolverine Radar
	1:50 - 1:55	Advancement in Field UV-VIS-NIR Spectroscopy of Soil and Clay Minerals: McKenzie Woodman, Spectral Evolution
	1:55 - 2:00	AI-Powered Global-Scale Monitoring: Steven Brumby, Impact Observatory
	2:00 - 2:30	**Break & 1-on-1 Lightning Talk Q&A (in auditorium or hallway)**
New & Future Systems 2	2:30 - 2:45	The Dragonette Constellation: Calibration and Validation: Chad Bryant, Wyvern Inc

New & Future Systems 2 Session **Chairs: Mark Bowman, NRO/CSPO & Dave Case, NGA**	2:45 - 3:00	Onboard Computing to Enable Orbital Detection of Hazards: Douglas Franz, MyRadar
	3:00 - 3:15	SpaceEye-T 1: Launch of Satrec Initiative's 30 cm Native Resolution Optical Satellite: Byung Joon (Bryan) Ahn, Satrec Initiative
	3:15 - 3:30	Commercial Remote Sensing Global Rankings - a study: Nadine Alameh, Taylor Geospatial Institute
	3:30 - 3:45	Lunar calibration of Earth observation thermal infrared imagers using cross-calibration and thermo-physical models: Christian Mollière, OroraTech
	3:45 - 4:30	**New & Future Systems 2 Panel**
Happy Hour at Jackson's Mighty Fine Food and Lucky Lounge **11927 Democracy Dr, Reston, VA 20190** **Wednesday, April 9th at 5:00 - 7:00 pm**		
Thursday Morning		
All sessions will be held in the USGS Dallas Peck Auditorium & all times are in Eastern US Time Zone		
Environmental Commercial Data and Atmospherics Session **Chair: Sarah Brothers, NOAA & Dan Opstal, USGS**	8:30 - 8:45	**Keynote: Gerry Peltzer NOAA**
	8:45 - 9:00	Presentation by Jerome Fisher from NOAA Satellite Analysis Branch*
	9:00 - 9:15	Hyperspectral Microwave Sounder Development and Roadmap: Mo Belal, Spire*
	9:15 - 9:30	The GHGSat constellation: Land and offshore methane detection and quantification: Jean-Philippe MacLean, GHGSat
	9:30 - 9:45	The FireSat constellation: a new window into wildfire detection and characterization: Kyle Story, MUON
ARD & Interoperability Session **Chairs: Sarah Brothers, NOAA & Dan Opstal, USGS**	9:45 - 10:00	Potential improvements on sensor geometric performance by image processing: Guoqing (Gary) Lin, NASA Goddard Space Flight Center
	10:00 - 10:15	Spatio-Temporal Validation of Analysis-Ready PlanetScope Surface Reflectance Data: Jessica Bobeck, Planet Labs PBC
	10:15 - 10:30	Automated routines for the validation of CEOS ARD compliance: Wolfgang Lueck, EOIntelligence
	10:30 - 10:45	**Break**
Hyperspectral Session **Chair: Medhavy Thankappan, Geoscience Australia & Leonardo de Laurentiis, ESA**	10:45 - 11:00	Cal/Val and Early Results from Planet's Tanager-1 Hyperspectral Mission: Geert Barentsen, Planet
	11:00 - 11:15	Data Fusion of VSWIR Hyperspectral (EMIT) and TIR (ECOSTRESS) for Enhanced TES (Temperature Emissivity Separation): Nimrod Carmon, JPL
	11:15 - 11:30	Comparing Night Imaging Capabilities: Moderate-Resolution VNIR Hyperspectral Data, Landsat 8/9, and Landsat Next for Global Systematic Nighttime Observations: Bob Ryan, I2R
	11:30 - 11:45	Characterizing Hyperspectral Sensors for SI Calibration and Cross-Calibration of Satellites: Bob Ryan, I2R
	11:45 - 12:00	Validation and initial processing results for Surface Reflectance Products from Planet's Tanager-1 Hyperspectral Mission: Christina Henze, Planet Labs
	12:00 - 12:30	**Hyperspectral Panel**
Thursday Lunch		
	12:30 - 1:30	**Lunch & Poster/Vendor Viewing**
Thursday Afternoon		
Afternoon Sessions Begin at 1:30 pm following lunch		
	1:30 - 1:45	Option for a Change in Projection System for Landsat Collection 3: Tom Maiersperger, USGS*

Topography, Geolocation, DEMs Session **Chair: Paul Bresnahan, USGS-EROS KBR & Esad Micijevic, USGS**	1:45 - 2:00	~~The Future of Urban Cadastral Systems: Integrated Surveying Approaches for Modern Land Management: Tirsit Lisanework Alemu, Bahir Dar~~
	2:00 - 2:15	Reconstructing Pushbroom Metadata Via Registration To A Truth Ortho: Byron Smiley, Pixxel
	2:15 - 2:30	Geolocation Accuracy Assessments of National Agriculture Imagery Program (NAIP) Orthoimages as a Reference Imagery Base: Paul Bresnahan, USGS-EROS KBR
	2:30 -2:45	Emerging 3D Terrain Awareness Techniques Using UAV and Satellite Data in Polar Regions: Nancy K. O'Hare, University of Georgia
	2:45 - 3:00	Advancing Planet's High-Resolution Satellite Imagery: Recent Progress and Future Directions: Duy Nguyen, Planet
	3:00 - 3:15	Qualification of 3D Drone Imagery for Satellite Geolocation Testing: Mark Abrams, Exquisite Geolocation Systems
	3:15 - 3:30	Automation Advancements for Ground Control Points through Multimodal Collection Methods: Shawana Johnson, Global Marketing Insights, Inc. & Hayden Howard, Compas
	3:30 - 3:45	Landsat 8/9 Cal/Val: 3D Control Network and Product Validation: Jie Shan, Purdue University
	3:45 - 4:00	**Break**
Techniques & Tools/Software to Measure Quality 1 Session **Chairs: Valentina Boccia, ESA & Jeff Clauson, USGS**	4:00 - 4:15	~~EarthDaily Mission and Thermal Imager Pre-Launch Cal/Val Progress: Keith Beckett, EarthDaily Analytics~~
	4:15 - 4:30	Planet's cross-sensor sharpness assessment tool: Venkataraman Krishnaswami, Planet Labs
	4:30 - 4:45	Monitoring Natural Capital from Space: A Framework for Determining Remote Sensing Capabilities and Uncertainties for ecosystem services valuation: Afreen Siddiqi, Massachusetts Institute of Technology
	4:45 - 5:00	ROCX 2025: An Open Community Remote Sensing Collection: John Kerekes, Rochester Institute of Technology
	5:00 - 5:15	Bridge Modeling and Application for Determining In-Flight Sensor Spatial Resolution: Alana Semple, NASA/SSAI
	5:15 - 5:45	**Techniques & Tools/Software to Measure Quality 1 & 2 Panel**
Friday Morning		
All sessions will be held in the USGS Dallas Peck Auditorium & all times are in Eastern US Time Zone		
Characterization Results Session **Chairs: Gerry Peltzer, NOAA & Melissa Martin, NASA**	8:30 - 8:45	System Characterization and Evaluation of Remote Sensing Imagery: Ajit Sampath, USGS-EROS KBR*
	8:45 - 9:00	Geometric & Registration Accuracy Assessment of Multi-Date Deep Stacks of Maxar Imagery: Andrew Bower, Maxar Intelligence
	9:00 - 9:15	Landsat 8/9 L1T Product Radiometric Pixel Uncertainty: Bob Ryan, I2R
	9:15 - 9:30	Generating decimeter precision DEMs from commercial VHR stereo imagery using a novel jitter correction framework: Shashank Bhushan, NASA Goddard Space Flight Center, University of Maryland
	9:30 - 9:45	Radiometric Performance of Maxar Legion Earth-Observing Sensors: Michele Kuester, Maxar
	9:45 - 10:00	**Break**
Techniques & Tools/Software to Measure Quality 2 Session **Chairs: Dath Mita, USDA & Paul Bresnahan, USGS-EROS KBR**	10:00 - 10:15	CIDR Tool Update: Peter Rinkleff, USGS*
	10:15 - 10:30	Physics-Based Satellite Derived Bathymetry (PBSDB) using Landsat OLI coastal images: Minsu Kim, USGS-EROS KBR*
	10:30 - 10:45	Quantifying Scene Complexity for ML Models: Samuel Vilt, MITRE*
	10:45 - 11:00	Empirical Approach to Normalize Landsat Reflectance to Nadir BRDF Adjusted Reflectance (NBAR): Mahesh Shrestha, USGS-EROS KBR
	11:00 - 11:15	~~The Role of Advanced Surveying Techniques in Modern Geospatial Analysis: Solomon Dargie Chekole, Bahir Dar University~~
	11:15 - 11:30	Hyperspectral imaging is the future, yet surface reflectance and validation lag behind: Edward (Ned) Bair, Leidos.
Note: speakers from this session are invited to sit on the Thursday afternoon Techniques panel to discuss their presentation and provide input on any questions asked.		
Closing Remarks	11:45 - 12:00	**JACIE 2025 Closing Remarks**: Cody Anderson, USGS