

Joint Agency Commercial Imagery Evaluation (JACIE)

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HISTORY

Joint Agency Commercial Imagery Evaluation (JACIE) was formed in 2000 to leverage resources from Federal agencies to characterize remote sensing data and to share results across the remote sensing community. JACIE initially consisted of National Aeronautics and Space Administration (NASA - Stennis), the National Imagery and Mapping Agency (NIMA), and the U.S. Geological Survey (USGS) with a focus on high-resolution satellites such as IKONOS and QuickBird.

JACIE has continued to expand its interest to all types of commercial and civil systems (including small satellites) that are of potential interest to the US Federal Government and those supported by it.

JACIE membership has expanded over time and currently includes: NASA, National Geospatial-Intelligence Agency (NGA), National Oceanic and Atmospheric Administration (NOAA), National Reconnaissance Office (NRO), U.S. Department of Agriculture (USDA), and USGS.

ORGANIZATION

JACIE Facilitation Team

In JACIE's early years, the drive and organization was through NASA Stennis Space Center. With the refocusing of efforts in 2004, the USGS assumed the role of primary coordination and facilitation of JACIE and continues that role today.

JACIE Stakeholders

The JACIE partnership is overseen by Stakeholders from each agency. The Stakeholders are typically senior Civil Servants or Executives who oversee projects and programs intimately involved with remotely sensed data. The Stakeholder's role is to provide guidance and input for their agency's needs and desires from JACIE and to hear of progress being made throughout the year. There are annual Stakeholder's Face-to-Face and One-on-One meetings between the Facilitation Team, each Stakeholder, and their Manager(s).

JACIE Managers

The ongoing interaction within JACIE is overseen by the JACIE Managers, mid-level managers from each agency responsible for JACIE-related communication, staff management, and partnership support. In the past the JACIE managers met on a monthly telecon; this has been modified to bi-monthly telecons with intervening One-on-One communications with the JACIE Facilitation Team to improve direct communication with each agency.

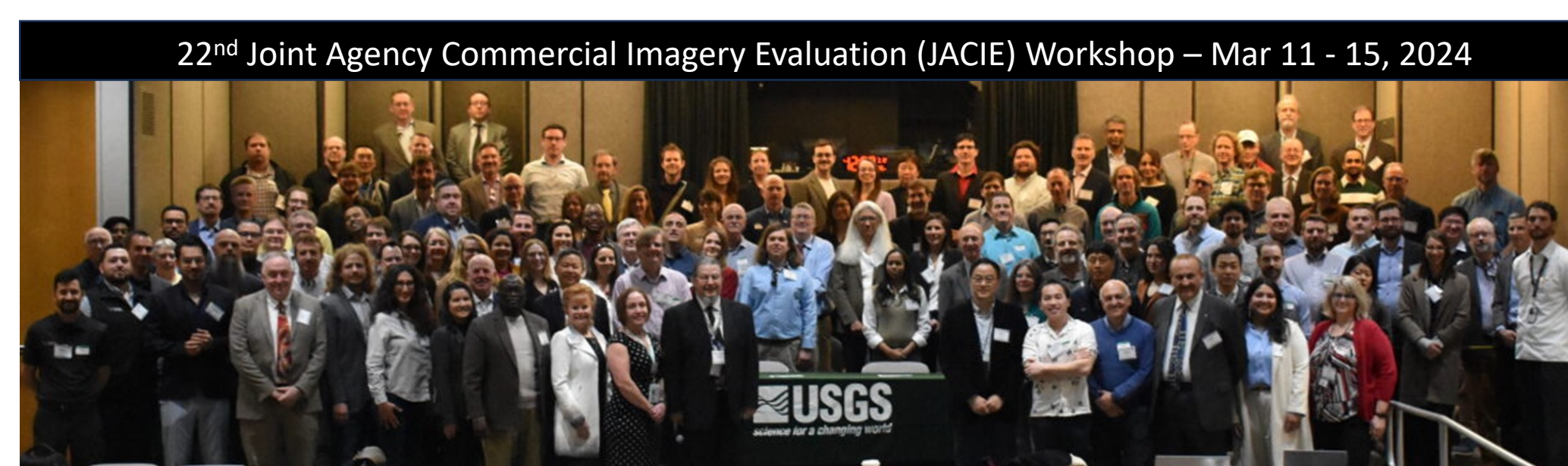
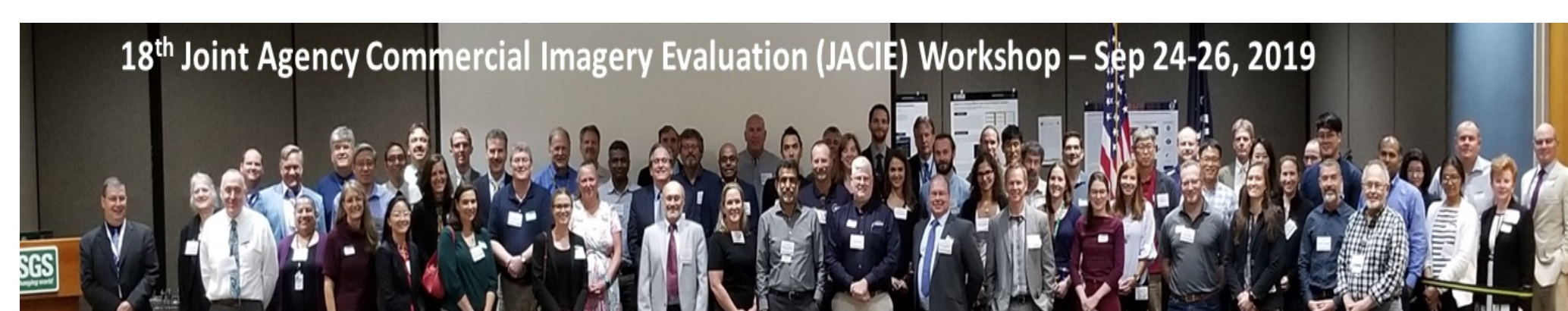
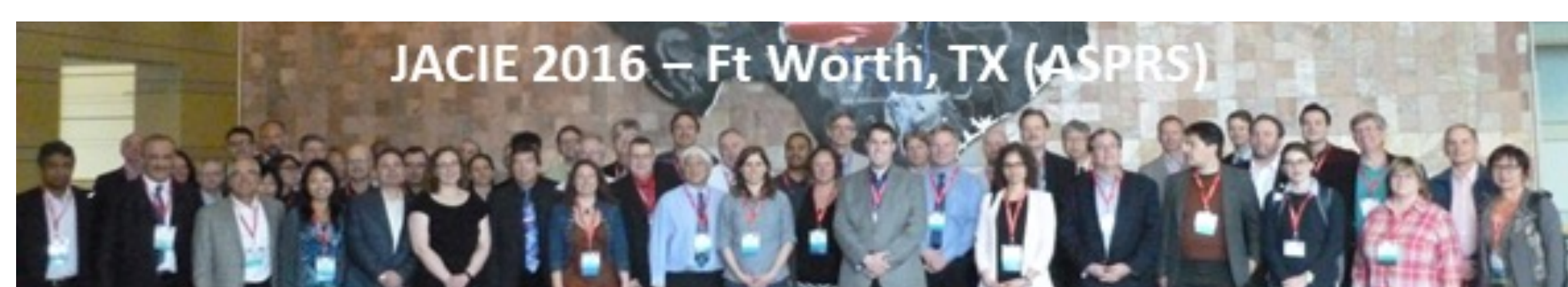
JACIE Technical Team

The Technical Team is comprised of all those involved in supporting JACIE work and interests. Each agency has a Tech Team Lead as the primary point of contact who, working with the JACIE Manager for that agency, communicates items of interest and involvement with the technical staff within their agency.

The JACIE Tech Team holds regular monthly meetings, usually with a guest speaker from one of the agencies or from an external group, to discuss JACIE technical information. The JACIE Facilitation Team is always looking for good ideas for presentations and talks for these monthly meetings. They are also working to better coordinate these talks with similar groups such as the Civil Applications Committee (CAC), the National Digital Orthophoto Program (NDOP), etc. to improve communication of new and exciting systems, techniques, and related information to JACIE and its partners.

ANNUAL WORKSHOPS

Since 2001, the JACIE Team holds an annual workshop to present its findings and hear from government, academia, and industry on the state of the industry, new systems and new techniques for calibrating data and measuring data quality. The recognized importance of JACIE is that it provides the open technical interface forum between government, industry and academia related to remote sensing data quality. With exceptions of 2005 (hurricane) and 2021 (pandemic), the JACIE Workshop has happened every year. 2020 (19th) and 2022 (20th) were virtual formats.



2024 JACIE Workshop

The 22nd JACIE workshop, held March 11-14, 2024, was another successful workshop. Held in-person and virtually, this workshop again saw attendance that was greater than prior workshops.

A Multi-National Workshop

Registrations for the 2024 workshop were received from over 30 different countries. While the U.S. had the most representation, attendees also represented Afghanistan, Bangladesh, Belgium, Bolivia, Brazil, Cameroon, Canada, Ethiopia, France, Germany, Ghana, India, Indonesia, Ireland, Italy, Kazakhstan, Kenya, Morocco, Netherlands, Nicaragua, Nigeria, Pakistan, Philippines, Saudi Arabia, S. Korea, Turkey, United Kingdom, and Vietnam. ~575 people participated with in-person attendance of ~275 and ~300 joining virtually.

RELATED GROUPS/EFFORTS

Very High-resolution Radar & Optical Data Assessment (VH-RODA) Workshop

Just as JACIE was formed by US Federal agencies, the European Space Agency (ESA) has its' own effort with a workshop called VH-RODA. (<https://earth.esa.int/eogateway/events/vh-roda>)

Started in 2019, it has been referred to as "The European JACIE". The 4th VH-RODA workshop was held on Nov. 27-30, 2023, at ESA-ESRIN in Frascati, Italy. JACIE was represented by USGS members who worked directly with VH-RODA to define agenda items and ensure that JACIE/VH-RODA coordinated actions were addressed. JACIE and VH-RODA have agreed to continue to pursue and address joint workshop actions. The JACIE Facilitation Team works closely with the VH-RODA organizers to coordinate these workshops.



CURRENT FOCUS AREAS

Interoperability/Uncertainty

As we move from the former conditions of data scarcity to a time of data ubiquity the challenges of data interoperability and data uncertainty become paramount. JACIE is actively working with partners to focus on the development of standards and practices to promote interoperability and uncertainty. A focused uncertainty workshop was held at the conclusion of the 2024 JACIE Workshop.

New and Future Systems/New Technologies

New technology engagements include: hyperspectral systems (new launches, how to assess data?, how to use?), SAR (commercial launches, civil systems with free & open data), integrated data products, automation, and AI/ML technologies and techniques.

Data Quality Assessment

JACIE data quality assessments have been done to meet the needs of each specific agency. However, JACIE efforts to promote a common assessment and reporting scheme are being worked. Currently ESA/NASA are working on the Earth Data Assessment Project (EDAP) and developing a Maturity Matrix and reporting framework for this. JACIE is collaborating on these efforts and will adopt applicable parts of this framework and its methods.

The JACIE Best Practices (image assessment guidelines) have recently been published in an Open File Report (OFR).

2024 JACIE Workshop Enhancements

The 22nd JACIE expanded its format to include a networking event, side meetings (SAR, HSI, and Tools), increased exhibitor participation, and a four-day schedule of talks. In 2025 the workshop will expand to five days.

Want more information about JACIE? Email mali@contractor.usgs.gov