NASA
earth

**Commercial Satellite
Data Acquisition (CSDA) Program Updates**

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Why buy commercial data?

Enhances our science and makes unique contributions to our mission.

Complements existing NASA/US Gov satellite fleet with shorter revisit times, higher spatial resolution, and complementary or unique measurements.

What is NASA's role?

Acquiring, evaluating, using, and archiving the data.

NASA has broad expertise in the techniques as well as the research & application fields.

Partnering with other federal agencies to maximize the value of commercial data.

CSDA Program Mission

*Serves as the **central mechanism at NASA** for identifying, acquiring and evaluating commercial EO data that support NASA's Earth science research & application goals.*

CSDA Program Goals

- Establish a continuous and repeatable process to <u>on-ramp</u> new commercial data vendors.

- Enable <u>sustained use</u> of purchased data for broader use and dissemination by NASA scientific community.

- Ensure long-term <u>data preservation, access and distribution</u> of purchased data and long-term access for scientific reproducibility.

- <u>Coordinate</u> with other US Government agencies and international partners on the evaluation and scientific use of commercial data.

- <u>Compliance</u> with 2003 US Commercial Remote Sensing Policy

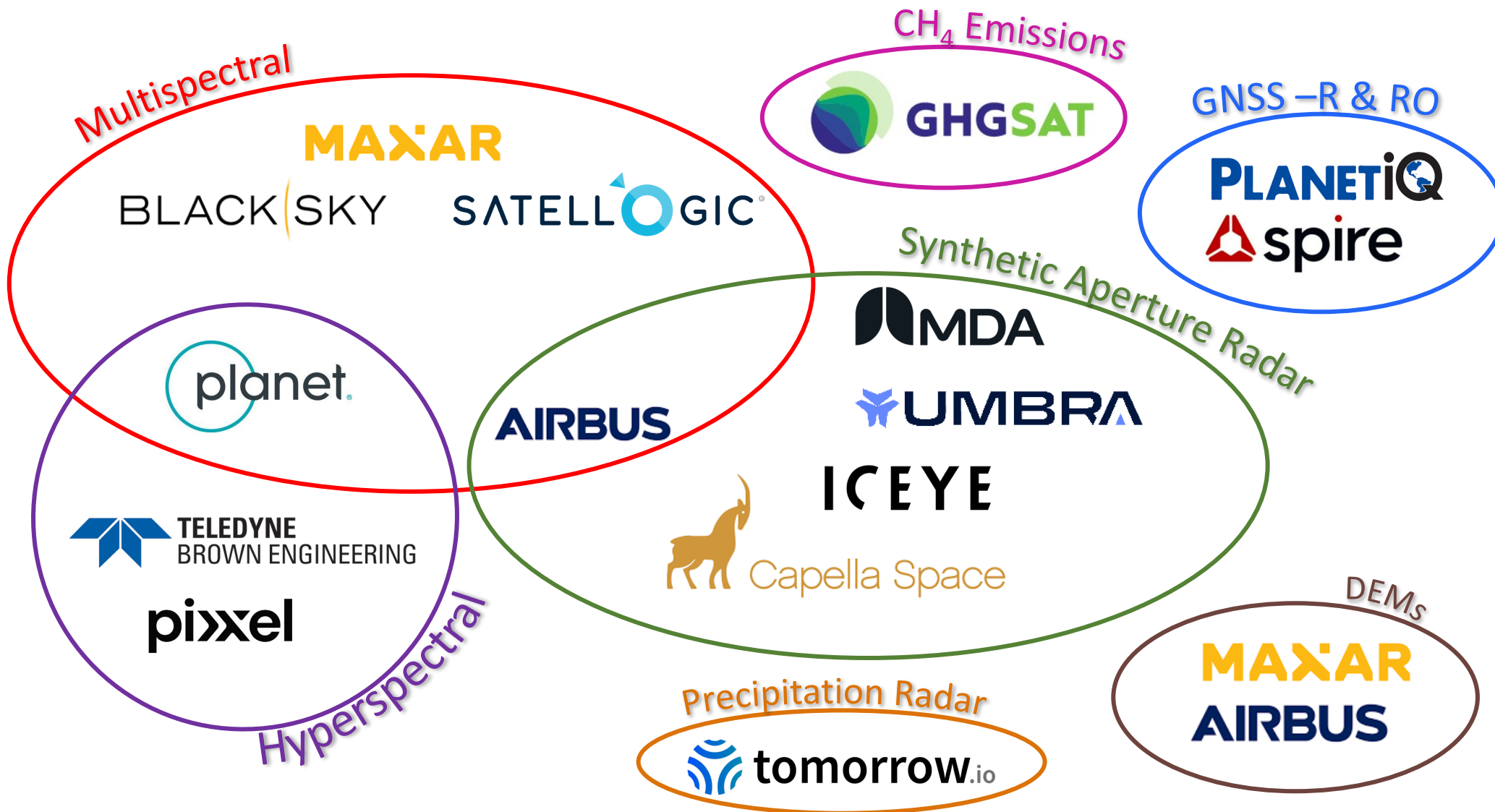**NASA's CSDA program introduction webinar held on August 28.**
Recording: <u>Commercial Satellite Data Acquisition Program - YouTube</u>

<u>Commercial Satellite Data Acquisition Program</u>
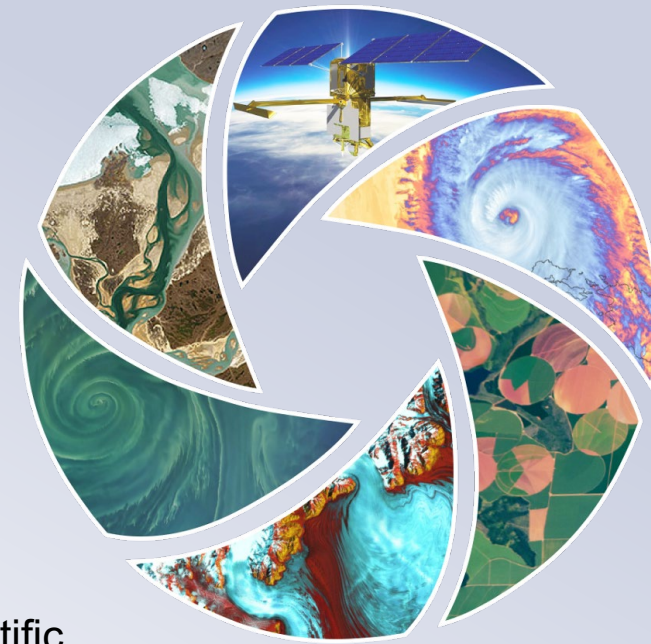
NASA CSDA Vendors

NASA Evaluation of Data Provides Confidence in Commercial Data

Enhanced recognition among the science research and applications communities

Strengthened credibility and trust of customers and investors

Access to NASA expertise in data quality

Strengthen vendor capabilities, improve staff retention through increase in staff morale

Increased brand awareness through CSDA communications

Greater exposure to the full extent of data utility

Data Evaluation Criteria

Commercial SmallSat Data Acquisition Program BlackSky Principal Investigator Evaluation Report

1. Accessibility of vendor supplied imagery and data

   Ease and efficiency of search, discover, and download from vendor systems.

2. Accuracy and completeness of metadata

   Accuracy and completeness of metadata provided by vendor.

3. Quality of User Support Services

   Availability, responsiveness, and technical expertise required to answer PI inquiries.

4. Usefulness of data for advancing Earth system science research and applications

   Ability of data to support Earth system science research and applications activities.

5. Quality of vendor supplied imagery and/or data

   Data attributes such as geolocation accuracy, radiometric accuracy, and platform intercalibration. Data quality evaluation will use the ESA-NASA Evaluation Guidelines.

EARTH SCIENCE DIVISION
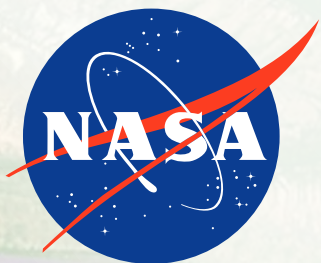
ESA-NASA Joint EO Mission Quality Assessment Framework

Separately,

- ESA's Earthnet Data Assessment Project (EDAP) established an EO mission quality assessment framework, which was also later customised for several different sensor domains.

- CSDA created an evaluation process to assess the quality and the integration into various research and applications supporting different thematic areas.

Together,

Developed the **Joint EO Mission Quality Assessment Framework** - To ensure that decisions on acquisition of commercial data can be made with confidence; the development of a set of guidelines to assess the data quality of these commercial sources; to strengthen the existing partnership between ESA and NASA

Data Provider Documentation Review			Validation Summary
Product Information	**Metrology**	**Product Generation**	
Product Details	Radiometric Calibration & Characterization 🔒	Radiometric Calibration Algorithm 🔒	Radiometric Validation Method 🔒
Availability & Accessibility	Geometric Calibration & Characterization 🔒	Geometric Processing 🔒	Radiometric Validation Results Compliance 🔒
Product Format, Flags & Metadata	Metrological Traceability Documentation 🔒	Mission Specific Processing 🔒	Geometric Validation Method 🔒
User Documentation	Uncertainty Characterization 🔒		Geometric Validation Results Compliance 🔒
	Ancillary Data 🔒		

CSDA Program Highlights

- All new business is on-ramped via Indefinite Delivery Indefinite Quantity (IDIQ) process. Competitive task orders will be issued for vendors to propose under the established a three-tier of End User License Agreement (EULAs): Public Release, U.S. Federal Government Plus, U.S. Federal Government

- CSDA-acquired data is also being integrated into Earthdata Search for improved discoverability along side NASA supported mission and project data.

- Improving our collaborations with federal partners, as well as international partners.

  - Coordination of Commercial Data Purchase within the U.S. Government with other Federal Agencies, share evaluation processes and outcomes, and share data requirements and needs.

  - Continuing our collaboration with international partners in developing guidelines, data evaluations, and programmatic and technological processes.

PlanetiQ Contract and Data Access

- CSDA awarded PlanetiQ the IDIQ contract as part of our initial IDIQ RFP solicitation in October 2023. The CSDA program released ROSES solicitation for PIs to assess the Utility of the data through scientific research. The PIs and the CSDA SME teams started working on the data evaluation process, working with the technical teams to understand the constellations and data. The SME Quality Assessment Report will be released in late fall of 2025.

- Data that was downloaded is in the process of being made available through the CSDA Satellite Data Explorer (SDX) interface and will be released with the reports.

- If you qualify for data access under our EULA, you can get authorization through the CSDA website: https://csdap.earthdata.nasa.gov/signup

Satellite Data Explorer (SDX):
Web interface for central search, discovery, and distribution of CSDA data
https://www.earthdata.nasa.gov/data/tools/satellite-data-explorer
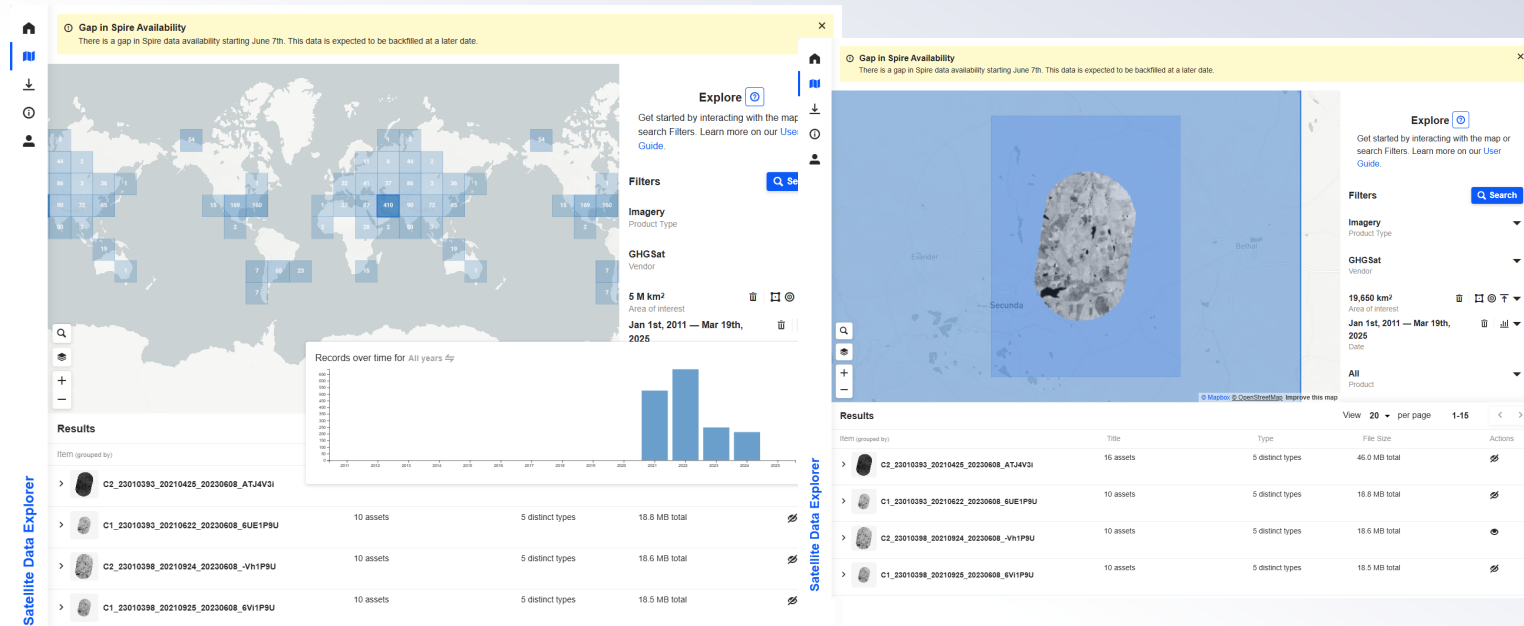
PlanetiQ

**Robert Kursinski, Ph.D.
Co-Founder and Chief
Scientist**