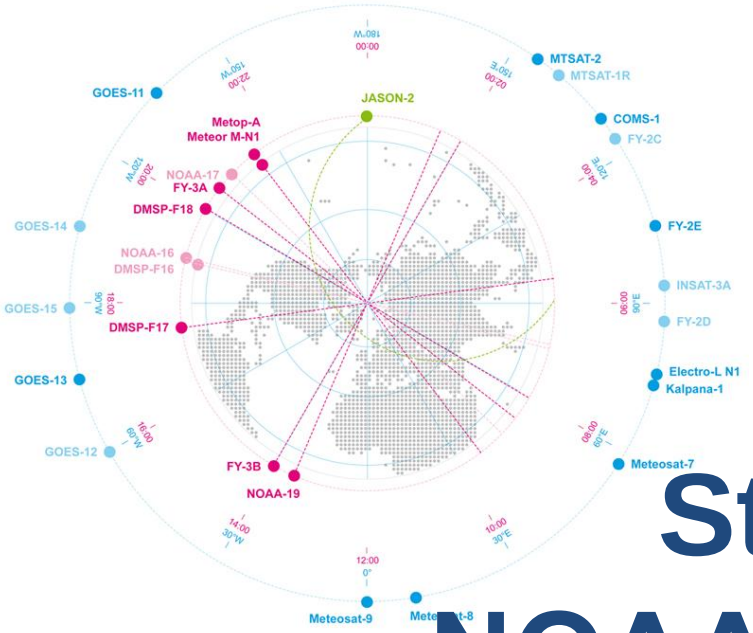

Status Report on NOAA's Current & Future Satellite Systems

Presented to CGMS-45, Plenary session, agenda item D.11

Coordination Group for Meteorological Satellites

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Supporting NOAA's Mission

NOAA is a science-based services agency engaged with the entire Earth system science enterprise.

NOAA's Top Four Priorities:

1. To provide information and services to make communities more resilient
2. To evolve the National Weather Service
3. To invest in observational infrastructure ***50% of NOAA's Budget***
4. To achieve organizational excellence

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The NESDIS Strategic Plan

NESDIS Vision:
To expand understanding of our dynamic planet as a **trusted source** of **environmental data**

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

Released September 2016

CGMS

The NESDIS Strategic Plan

*We have to deliver without interruption the data and observational products our **Users** require.*

*We must ensure the space and ground assets are current, secure, and delivering the necessary information to meet **User** needs.*

*We must maintain a vibrant and capable workforce within and trusted partnerships globally to meet our **Users'** needs.*

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Commitments

- **Continuity**

  NESDIS must continue to ensure the continuity of our observations over time and anticipate future risks to mission success with the reliability and robustness that have come to define the organization.

- **Data & Information**

  NESDIS must not only deliver single-source informational products, but also broad-based data-acquisition and distribution products that utilize and integrate multiple sources of data, allowing a broader spectrum of use.

Recent and Upcoming Launches

COMMITMENTS
• CONTINUITY
• DATA & INFORMATION

Entering a New Era

COMMITMENTS
• CONTINUITY
• DATA & INFORMATION

JPSS

- Over 2000 channels
- Spectral resolution in IR/mw
- Hi-Res visible (Arctic, fire, …)
- Night time imagery for Polar viewing

GOES-R

- Advanced Baseline Imager w/16 channels
- More rapid coverage of global and focused areas
- Geostationary Lightning Mapper

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NOAA

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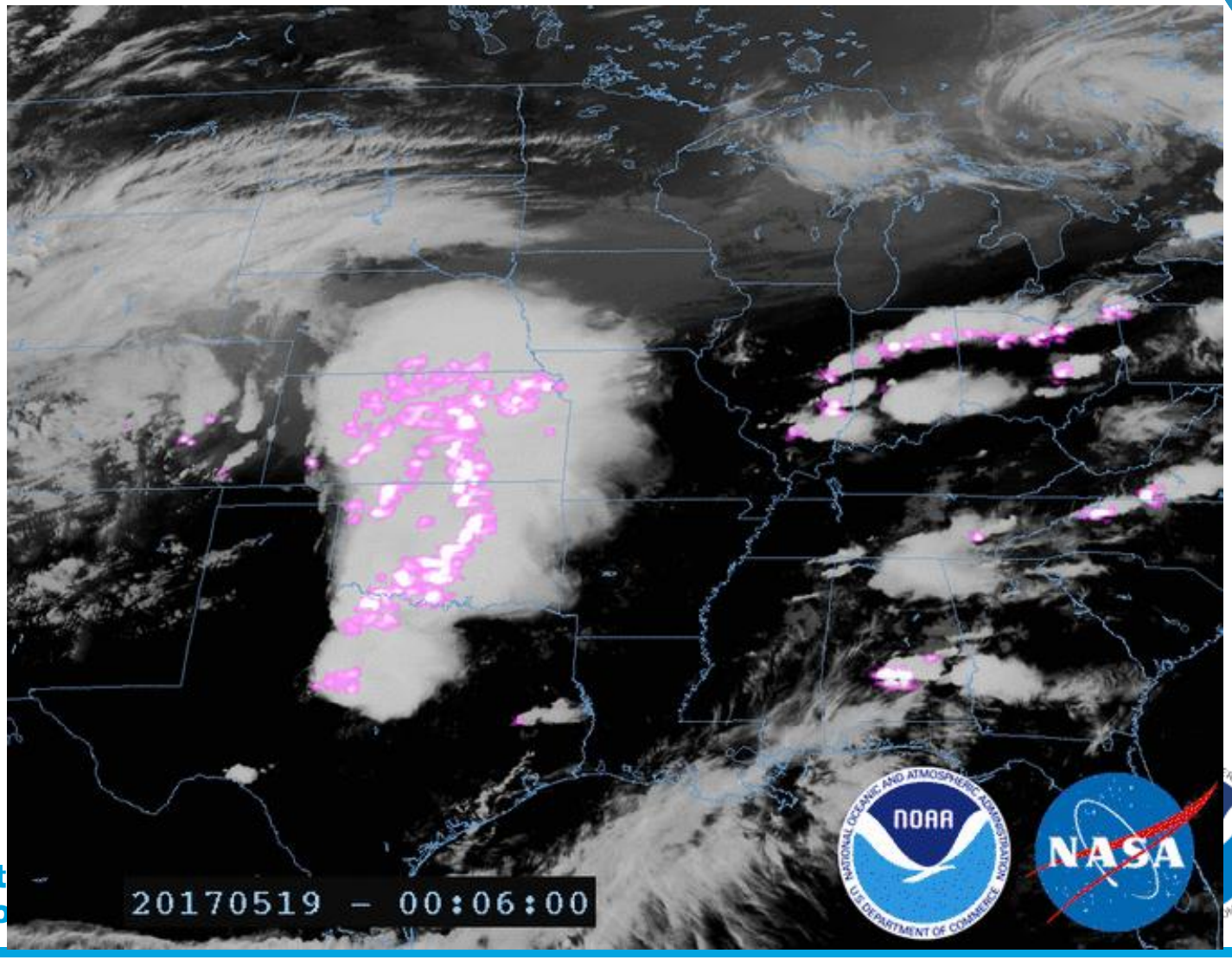
Integrating GEO and LEO to meet User Requirements for Nowcasting

COMMITMENTS
• CONTINUITY
• DATA & INFORMATION



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Note: Pre-operational GOES-16 data

Capabilities

- **Architecture**

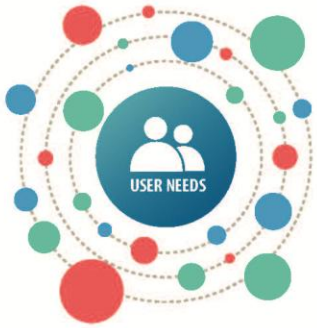
  NESDIS will work to evolve its ground and space architecture and move away from stand-alone systems in order to improve observational capabilities, resiliency and efficiency.

- **Use-Inspired Science**

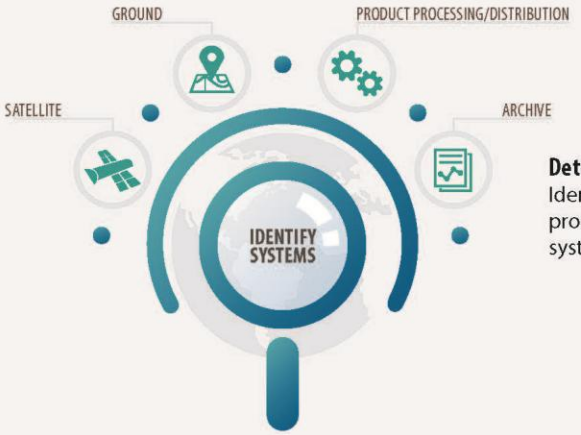
  NESDIS has an opportunity to help better inform future environmental assessments through innovative science and meaningful engagements with stakeholders and decision makers. These engagements will also help develop the next generation of science-based product and services.

CAPABILITIES

- ARCHITECTURE
- USE-INSPIRED SCIENCE



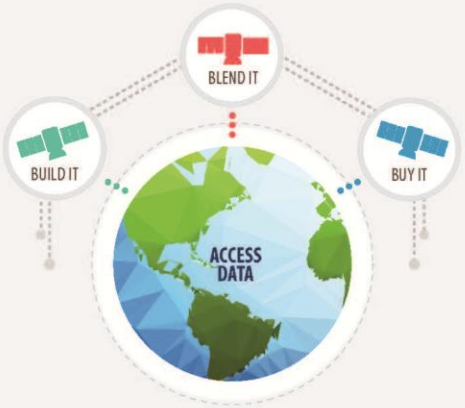
Identify User Needs
Engage with our various users in order to understand their needs.



Determine How to Meet User Needs
Identify the satellite, ground product processing and distribution, or archival systems required to meet our user's needs.

NESDIS Data Lifecycle

UNDERSTANDING OUR DYNAMIC PLANET AS A TRUSTED SOURCE OF ENVIRONMENTAL DATA



Access Data
Obtain the necessary data by building, blending, or buying it.

- **Build:** Managing NOAA's current and future satellite programs
- **Blend:** Collaborate with our partners to develop satellite versatile systems or incorporate data from commercial providers into the generation of data products and their distribution
- **Buy:** Purchasing data provided by commercial satellite systems

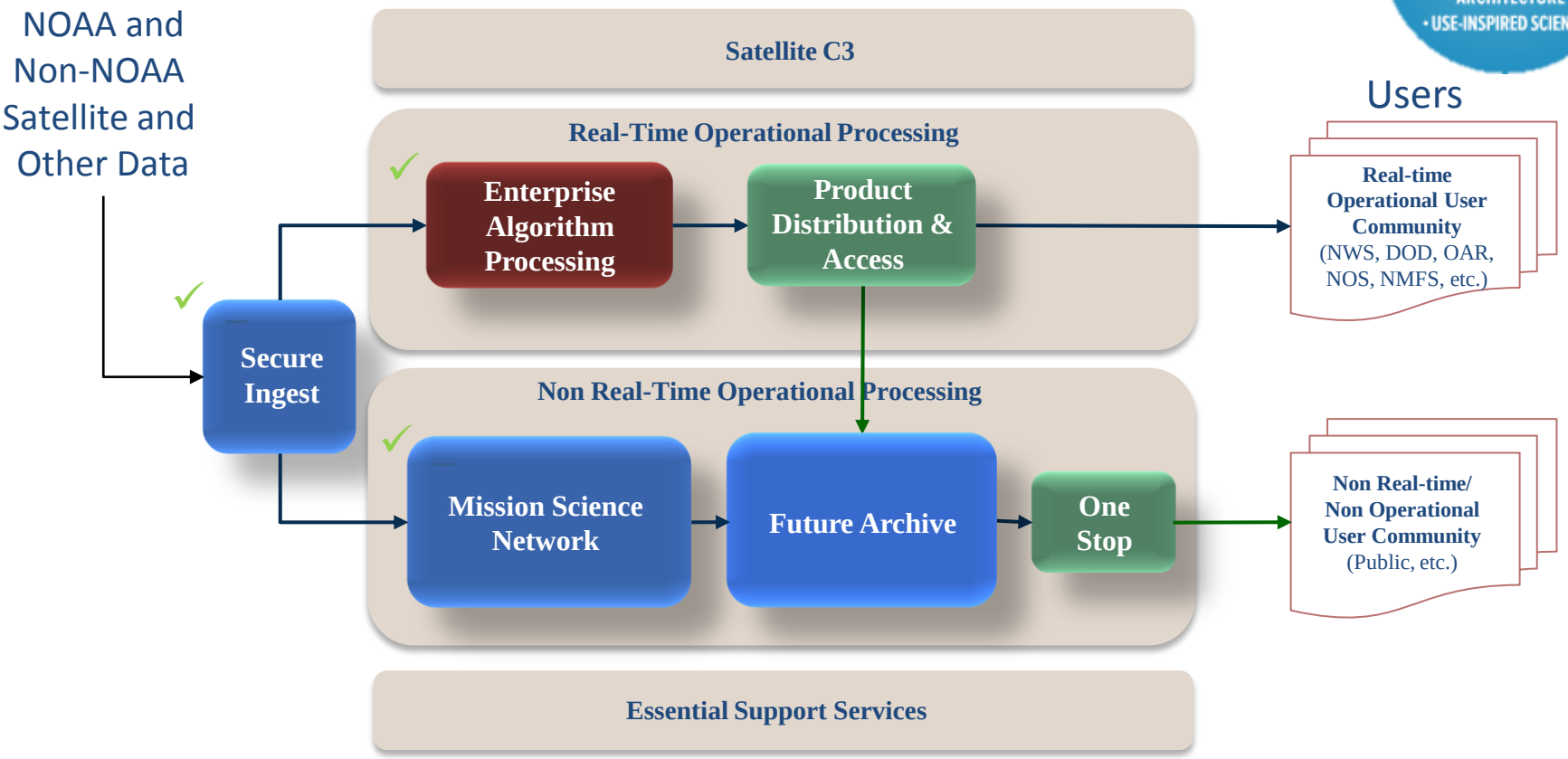
Provide Useful Data in Near Real-Time
NESDIS operates satellites 24/7, processes data using developed algorithms, and transmits data to users in near real-time.

Provide Archived Data
NESDIS houses data in an archive and makes it available to outside researchers.

Use Data and Conduct Research
NESDIS uses our own data to create operational products and conduct internal research.

Make the Data Useful
Develop algorithms to create products as well as calibrate and validate data to ensure quality and accuracy.

Evolve to Data Source Agnostic Architecture



✓ Near to Mid Term Strategic Priorities - Conducting pilots and developing plans for implementation

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Community

- **Partnerships**

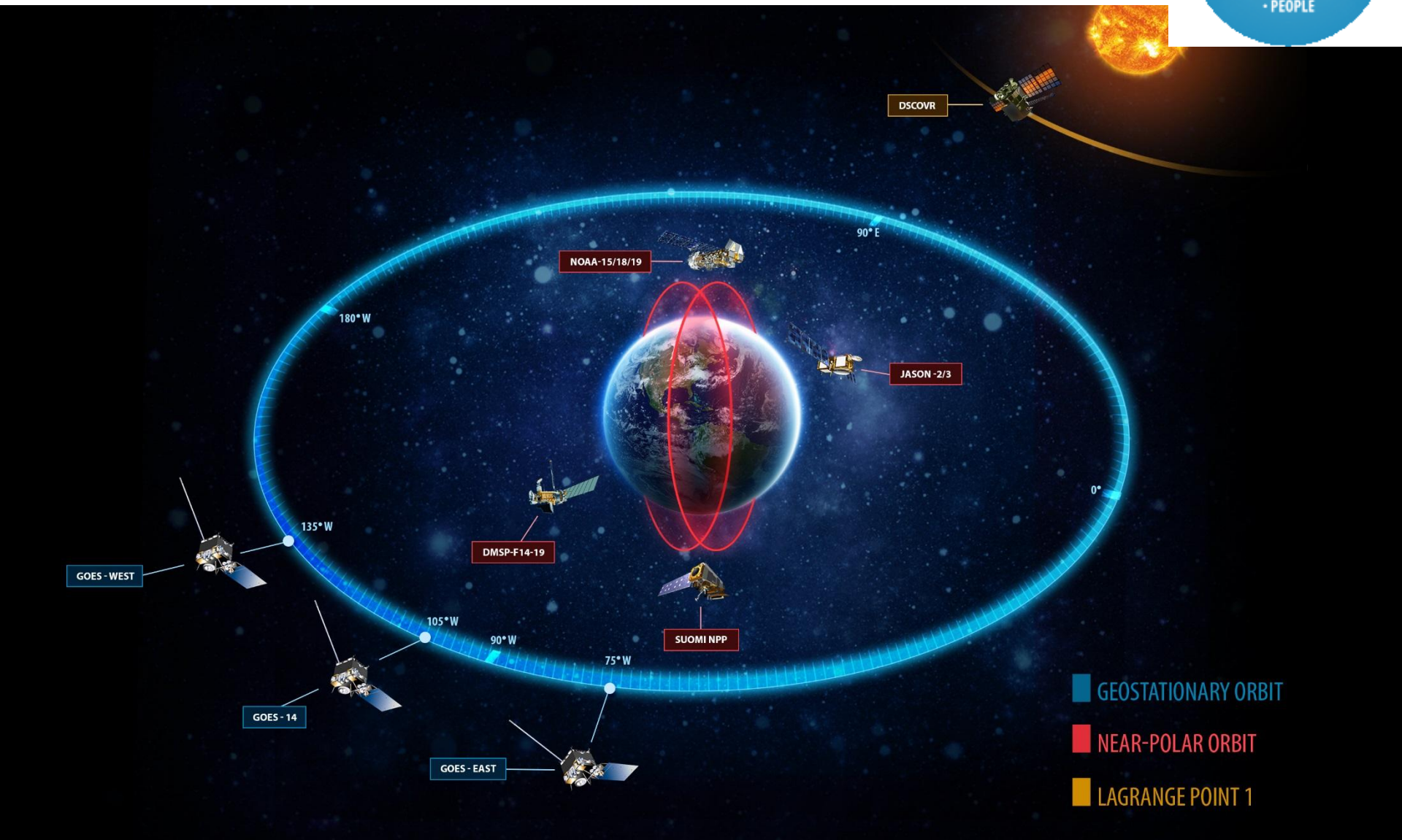
  Successful partnerships allow us to meet our mission cost-effectively and to be more responsive to the needs of our users and stakeholders. Under this strategic plan, our international and interagency partnerships will remain a priority for NESDIS.

- **People**

  As the scope, breadth and level of expertise of services and information provided by NESDIS expands in the years to come, we will continue to rely on a workforce that is engaged, diverse, dedicated and nationally and internationally recognized as authorities in their fields.

We Are Moving beyond exploitation of a NOAA-centric Observing System …

COMMUNITY
• PARTNERSHIPS
• PEOPLE



…To greater utilization of a growing global constellation of Earth Observation satellites

COMMUNITY
• PARTNERSHIPS
• PEOPLE

At:
The City College of New York, NY
Hosted by:
NOAA Cooperative Science Center for Earth System Sciences and Remote Sensing Technologies (CREST)