Developing Next-Gen Ground for NOAA’s Future Earth Observation Architecture

Maximizing Benefits of Partnership & Coordination

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NOAA’s Earth observations support weather forecasts valued at $315 billion to the nation’s economy, protecting and improving weather-vulnerable industries such as farming, shipping, and utilities.

U.S. 2020 Billion-Dollar Weather and Climate Disasters

This map denotes the approximate location for each of the 22 separate billion-dollar weather and climate disasters that impacted the United States during 2020.
Leveraging Partnership Capabilities in our Next-Gen Space-Based Architecture Requires Enterprise-Level Coordination
Common Services Architecture & Data Systems
Designed to Meet User Needs

- NOAA Sources (satellites, radar, etc.)
- International Operational
- Research and other partners
- Commercial

Secure Ingest

Product Generation: L2+ and merged products
Product Distribution
Archive and Stewardship

Common architecture for common services

Freight

USERS
Real-Time Operational Community
Non Real-Time Operational Community
Non-Real-time/Non-Operational User
Matching NOAA’s Next-Gen Space Capability with Next-Gen Data Science & Ground Capability

DISAGGREGATED & HYBRID CONSTELLATIONS
• MORE SATELLITES, INSTRUMENTS & DATA
• COMMERCIAL BUYS
• INTERNATIONAL PARTNERSHIPS
• OTHER FEDERAL AGENCY PROVIDERS

“BROADER APERTURE” TO ABSORB ALL FORMS OF DATA
• SECURE INGEST & DATA INTEGRATION
• QUANTUM-COMPUTING, MACHINE-LEARNING
• CLOUD-BASED ACCESS, ARCHIVING & INFORMATICS
• USER-CENTRIC DATA DELIVERY
Thank you