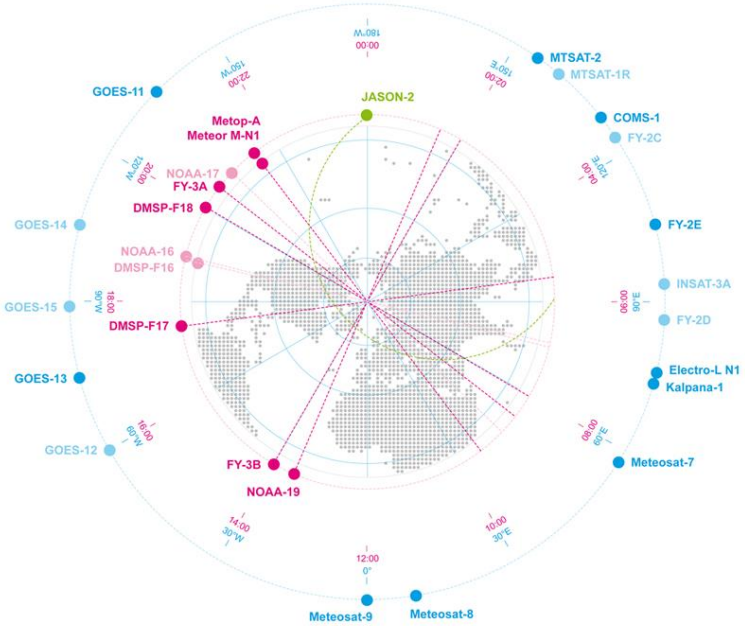


Status of NOAA's Commercial Weather Data Pilot

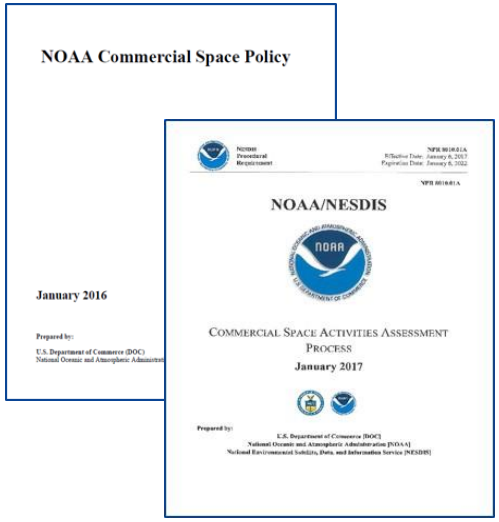
Presented to CGMS-46 Plenary session, agenda item C.5

Coordination Group for Meteorological Satellites

CGMS

Planning for the Future

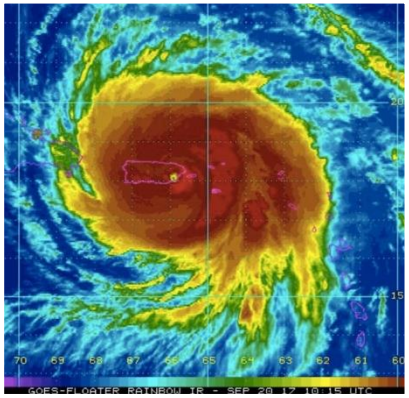
- NOAA is evolving toward a mission-effective, integrated, adaptable, and affordable portfolio
  - Focus on leveraging innovations, emerging partnerships, and cost-effective trends
  - Goal is to leverage commercial capabilities and innovation



"NOAA will explore and, where appropriate, pursue **demonstration projects** to validate the viability of assimilating commercially provided environmental data and data products into NOAA meteorological models and add value to the forecast."

"NESDIS will issue one or more solicitations…for NOAA to **acquire and evaluate on-orbit observations from commercial sources**, where industry has or will establish on-orbit capabilities that were identified by NOAA as promising option(s)…"

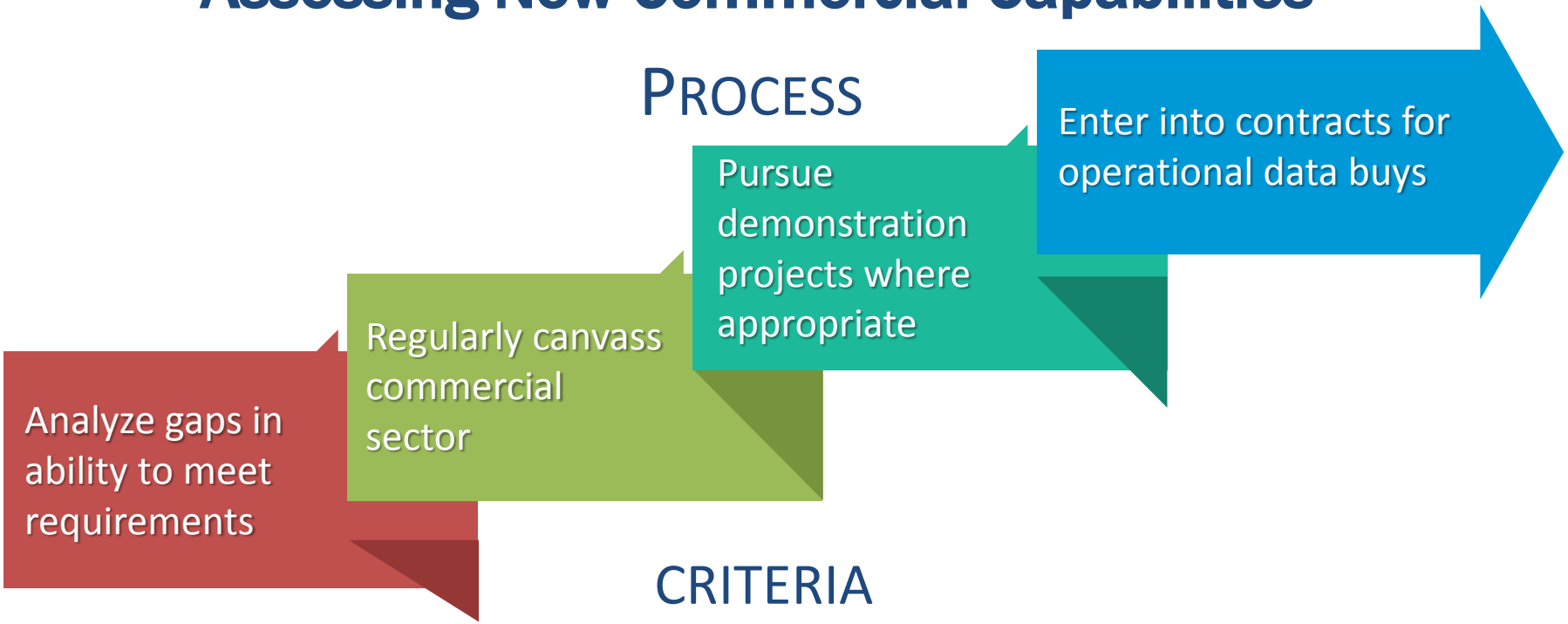
Addressing Critical Weather Forecasting Needs



- Aviation Weather and Volcanic Ash
- Fire Weather
- Hydrology and Water Resources
- Marine Weather and Coastal Events
- Hurricane/Tropical Storms
- Routine Weather
- Severe Weather
- Tsunami
- Winter Weather
- Environmental Modeling Prediction

Assessing New Commercial Capabilities

PROCESS



CRITERIA

Value	Cost-effectiveness	Exploitability
• Concept legitimacy • Accuracy • Quality • Timeliness • Reliability • Validity	• Cost/value balance • Availability • Sustainability • Support	• Comprehensiveness • Security • Downstream use

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Commercial Weather Data Pilot Round 1

Initiation - 2016: Commercial Weather Data Pilot Round 1

Initial Data Set

- NOAA identified radio occultation (RO) as initial data set for evaluation
- Contract deliverables flexible to enable maximum participation
  - Requested 3-6 months of data in specified format
  - No minimum requirement for RO per day, distribution of RO around the globe, or secure real time data delivery

Results

- Issued contracts to two companies for RO data
- Received data from one company
- Will issue report on findings

Commercial Weather Data Pilot Round 2

Initiation - 2017: Commercial Weather Data Pilot Round 2

Objectives

- Include additional operational considerations for RO data purchase
- Perform comprehensive assessment of the value of commercial RO data
- Develop NOAA systems readiness for future purchases of operational weather data from commercial sources

Timeframe

- Round 2 RFP released April 2018
- NOAA continues to pursue internal system readiness for future purchases of operational weather data

Round 2 Data Sharing

- CGMS Members will have access to Round 2 data for evaluation purposes
  - Not for further redistribution
- As with other NOAA data, we anticipate:
  - User organization will coordinate with NOAA on assessment
  - Any proprietary information will be protected

Coordination Group for Meteorological Satellites

Key Challenges

- Price points, competition, and market demands
- Data licensing and tension between commercial interests
- Impact to partnerships, data sharing arrangements, and R&D
- Operational stability of data and user readiness
- Interagency coordination
- Calibration and validation lifecycles

NOAA is actively engaged with the SmallSat and calibration communities to work on these issues

Next Steps

Continue to canvass the commercial sector for data sets to meet mission needs

Round 3 RFI to inform Pilot beyond 2018

Execute Commercial Weather Data Pilot Round 2, with results possible in 2020

Consider commercial capabilities as a potential part of future architectures