



CEOS OSVW Virtual Constellation Status and Next Steps



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Outline

- What is CEOS and the Virtual Constellations
- Role of the OSVW-VC
- Role of the IOVWST
- Next Steps/Discussion Questions

CEOS Background

- Established in 1984 under auspices of G-7 Economic Summit of Industrialized Nations
 - Focal point for international coordination of space-related Earth Observation (EO) activities
 - Optimize benefits through cooperation of members in mission planning and in development of compatible data products, formats, services, applications, and policies
- Operates through best efforts of Members and Associates via voluntary contributions
- 30 Members (Space Agencies), 22 Associates (UN Agencies, Phase A programs or supporting ground facility programs)
- As the space component of the Global Earth Observation System of Systems (GEOSS), CEOS is implementing high priority actions in support of Group on Earth Observation (GEO) Tasks

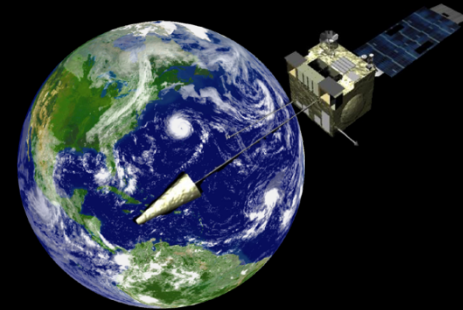
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CE  S Committee on Earth Observation Satellites



Primary Objectives of CEOS

1. To optimize benefits of space-borne Earth observations through:
 - Cooperation of its Members in mission planning
 - Development of compatible data products, formats, services, applications, and policies;
2. To serve as a focal point for international coordination of space-related Earth observation activities;
3. To exchange policy and technical information to encourage complementarity and compatibility of observation and data exchange systems.



CE  S Committee on Earth Observation Satellites



Strategic Implementation Team (SIT)

- Created in 1996 to advance the involvement of CEOS in the development of the Integrated Global Observing System (IGOS)
- Plays a central role in coordination of existing and future missions of CEOS Agencies in support of GEO, GCOS, WMO, UNFCCC, etc.
- Comprised of the Principals of CEOS Member Agencies and some Associates with the authority to commit Agency support to initiatives
- SIT Chair Key Responsibilities
 - Lead CEOS interaction with GEO/GEOSS and strengthen linkages to GEO and GEOSS
 - Lead CEOS Virtual Constellation for GEO development and implementation activities
 - Assist CEOS interaction with GEO Committees

SIT Objective: To define, characterize, and develop the vision for CEOS participation in GEO and strengthen CEOS linkages to GEOSS

CE  S Committee on Earth Observation Satellites



CEOS Virtual Constellations for GEO

- CEOS Virtual Constellations for GEO demonstrate the value of collaborative partnerships in addressing key observational gaps and bridging multiple GEO Societal Benefit Areas while maintaining the independence of individual contributions
- Focus dialogue from “all topics/all agencies” to smaller, more specialized groups
- Guidance for design and development of future systems to meet the broad spectrum of EO requirements
 - Avoid duplication and overlap in EO efforts
 - Close information gaps for GEO SBAs
 - Establish and sustain global EO coverage and data availability

| | | | | | |
|---|--|---|--|---|---|
| Atmospheric Composition Co-Leads: NASA and ESA | Land Surface Imaging (LSI) Co-Leads: USGS, ISRO, and INPE | Ocean Surface Topography Co-Leads: NOAA and EUMETSAT | Precipitation Co-Leads: NASA and JAXA | Ocean Colour Radiometry Co-Leads: EC-JRC, JAXA, and NASA | Ocean Surface Vector Wind Co-Leads: NOAA, ISRO, and EUMETSAT |
| Sea Surface Temperature Co-Leads: ESA and NOAA | | | | | |

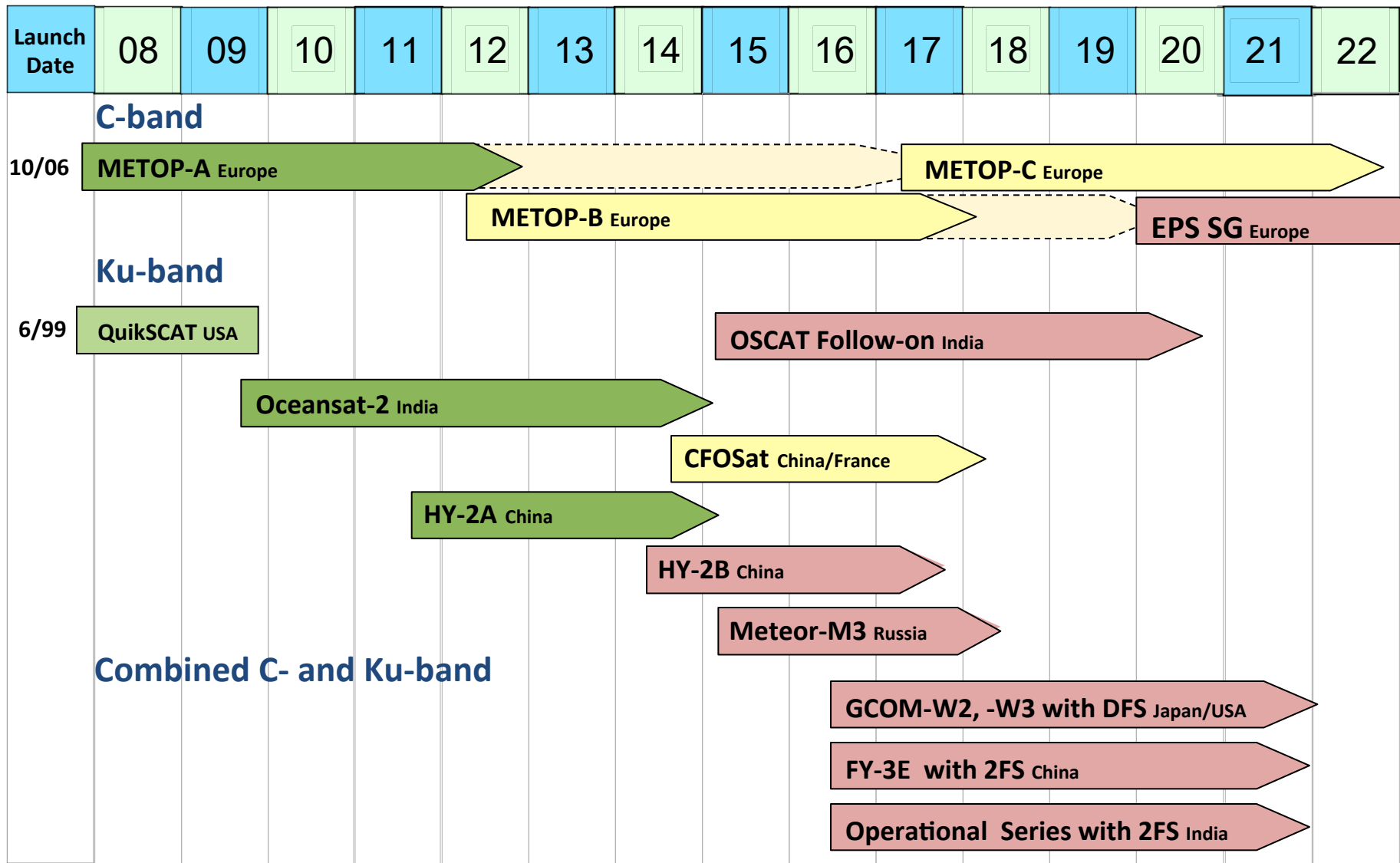
OSVW-VC Objective

- ***To foster the best quality Ocean Surface Vector Wind data for applications in short, medium, and decadal time scales in the most cost effective and efficient manner through international collaboration, scientific innovation, and rigor***

OSVW-VC Update (SIT-27)

- Continue to advocate for open and timely data access (China-SOA and Russia remain unresolved issues)
- Continue to advocate for orbit optimization for the Constellation
- Capacity building and user outreach
 - 1st training course in the Use of Satellite Wind and Wave Products in Operational Marine Forecasting, Oostende, Belgium (2009).
 - 2nd training course in the Use of Satellite Wind and Wave Products in Operational Marine Forecasting, Oostende, Belgium (2011).
 - 3rd training course in the Use of Satellite Wind and Wave Products in Operational Marine Forecasting, Brazil (2012).

GLOBAL SCATTEROMETER MISSIONS



Design Life Extended Life

Operating

Design Life Extended

Approved

Proposed

OSVW-VC Next Steps

- How should the OSVW-VC evolve?
- CEOS=Self-Study (CSS) on-going through 2013
 - Key recommendations recently released indicating increased emphasis on physical deliverables in support of CEOS priorities
 - Now entered the CSS implementation phase
- Revise/Update/Restructure the OSVW-VC Implementation Plan (for SIT-28)
 - Draft objectives
 - Participation and Data Policy
 - Calibration and Validation
 - Harmonization of Products
 - Product content and format harmonization
 - Inter-calibrated data products
 - Higher level products
 - Capability Demonstration and Capability Improvement
 - Future Requirements
 - Relation to Other Ocean Surface Variables
 - Training and Outreach

Role of the IOVWST

(an interpretation)

- Promotes remote sensing science in support of improved OVW products

“Measurement team”

- Supports natural science research highlighting uses of OVW in earth sciences

“Multi-disciplinary Science team”

- Forum to bring together international satellite OSVW community

“OSVW Constellation team”

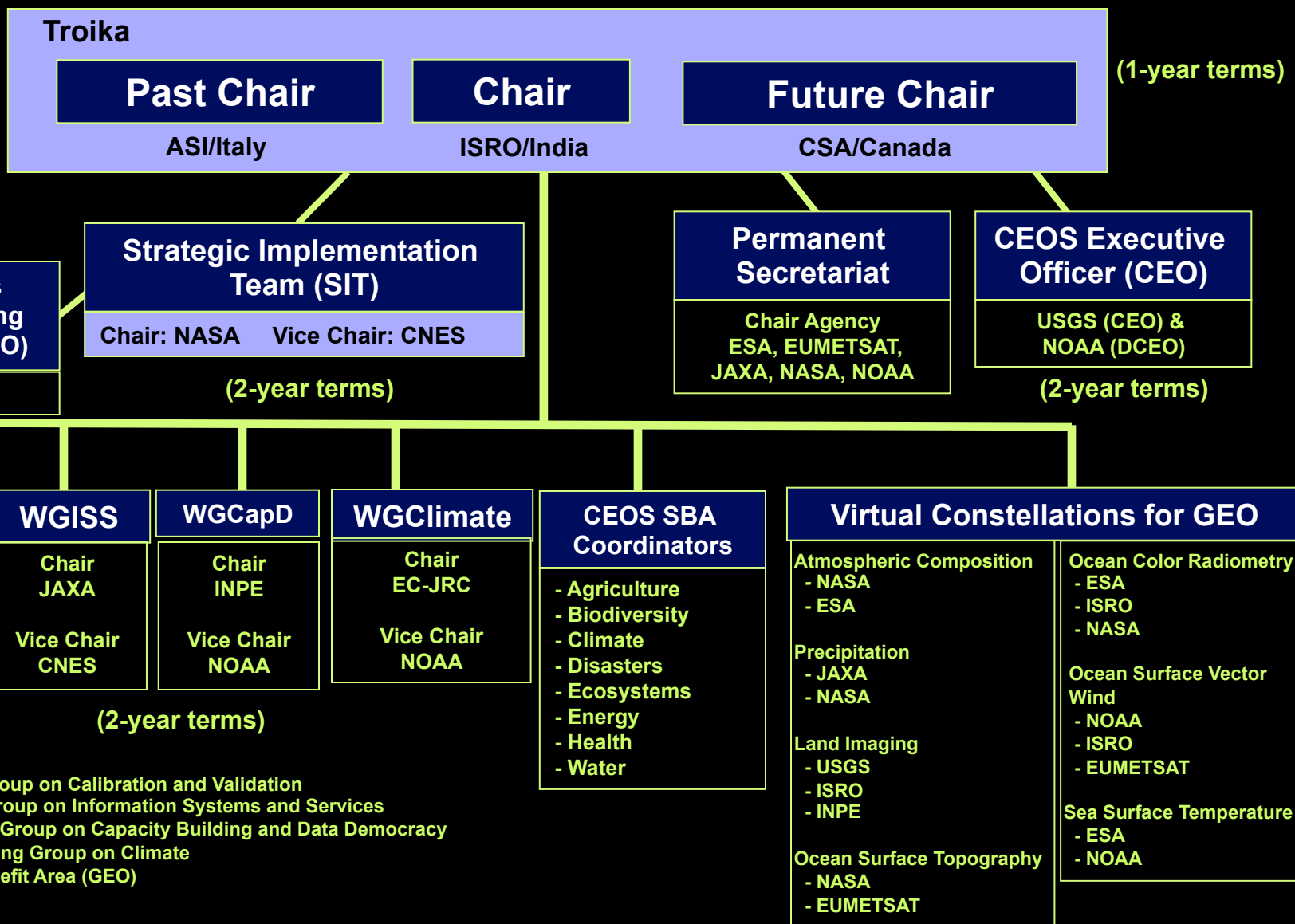
Next Steps/Discussion Questions

- Should/could the IOVWST take on the commitment of the OSVW-VC in addition to its traditional goals?
- Should/could the IOVWST adopt the Virtual Constellation for Ocean Surface Vector Winds? (parallel GHR SST and OSTST)
- Would this evolution of IOVWST result in better access to OSVW data and/or improved “internationalization”
- Changing Environment with growing importance of “third-party” missions
 - Data access
 - Multi-mission intercomparisons
 - Ways to make recommendations

- BACKUP



CEOS Structure 2011-2012



What is CEOS

CEOS 101: Committee on Earth Observation Satellites. International body funded in 1984. Today 30 Members (Space Agencies) + 22 Associates

Aims at:

- optimizing benefits of spaceborne Earth observations through cooperation between agencies
- Serving as a focal point for international coordination of space-related Earth observation activities;
- Exchanging policy and technical information to encourage complementarity and compatibility of systems

Within CEOS, “Virtual Constellations” are the “specialized” sub-groups “atmospheric composition”, “precipitation”, “land imaging”, “OSVW”, “SST” , “ocean color”

OSVW-VC Draft Objectives

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