



Committee on Earth Observation Satellites

Update on OCR-VC Activities & Actions

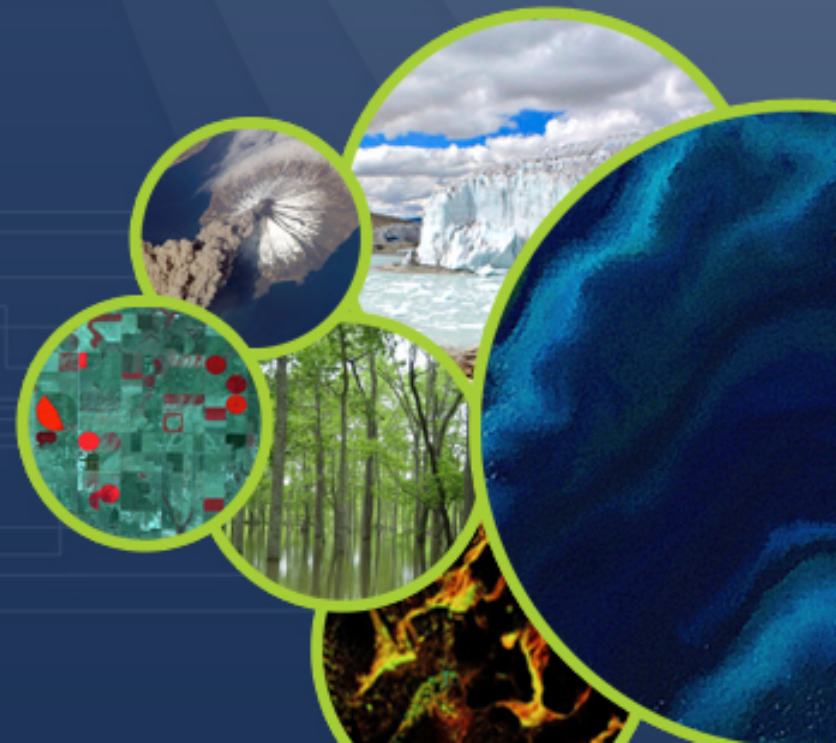
Paul DiGiacomo (NOAA), Craig Donlon (ESA), Ewa Kwiatkowska (EUMETSAT)

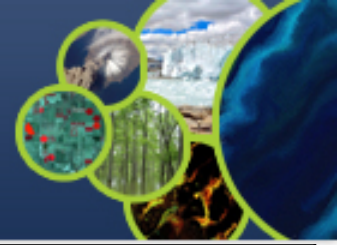
CEOS SIT-33

Session and Agenda Item 3.4

Boulder, CO, USA

24 – 25 April 2018



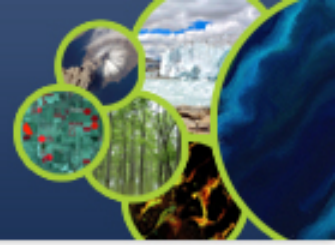


Delivery of a second iteration of the Essential Climate Variable Inventory			
CMRS-15: Cycle 2 Gap analysis	Q2 2018	Several teams will perform the cycle 2 gap analysis in parallel, with the work organized by thematic area. To ensure consistency of approach across the full inventory, the gap analysis work of the individual teams will be overseen/coordinated by the WGClimate Chair team.	WGClimate
Annual delivery of the Essential Climate Variable inventory			
CMRS-17: Collection, incorporation, and quality control of new & updated information from data providers	Q4 every year from 2019 onwards	Based on a stable questionnaire, with potential updates of the inventory structure, to accommodate for example requirements stemming from C3S and WCRP; and experiences from applicable projects.	WGClimate
Engagement with GCOS			
CMRS-19: Joint CEOS/CGMS Response to the new GCOS IP	Q2 2018	Complement the response to the GCOS IP 2016 with the technical supplement addressing individual ECVs. Reflecting the partnership, this document will be developed jointly by CEOS and CGMS.	WGClimate

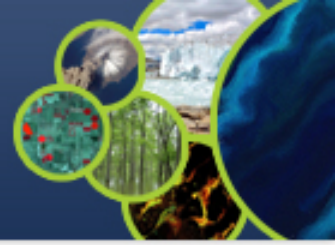
- **3.1** Climate Monitoring, Research and Services – sample actions for OCR-VC
- **3.2** Carbon Observations, Including Forested Regions – inclusion of aquatic? IOCCG discussed “Aquatic Carbon From Space” special journal issue
- **3.5** Strategy for Observations of Water from Space – OCR-VC includes open ocean, lakes, rivers, coasts, etc with different observational requirements
- **3.7** Plans for annual Summer Lecture Series in Villefranche-sur-Mer, France; Ocean Colour online primer; discussions on Copernicus training Asia/Africa
- **3.10** Outreach – EOVI update provided to GOOS mid-March 2018

(red – for follow up at next meeting)

- IOCCG Water Quality report in prep – synergy w/CEOS feasibility study
- OC EOVs submitted to GOOS. **ECV revisit under discussion**
- **Lake ECVs under development** - related to agenda items 5.1 and 5.2
- **NASA working with Resources for the Future on an economic valuation of OC data (OceanObs19 abstract). Expected late 2018/early 2019**
- Modular implementation of Ocean Color Radiometry-Implementation Team (OCR-IT), formerly INSITU-OCR
 - NASA completing three-year/US\$8M investment in first phase of INSITU-OCR white paper for three VC projects (UV-SWIR).
 - EUMETSAT document “Requirements for Copernicus Ocean Colour Vicarious Calibration Infrastructure” under review
 - ESA FRM4SOC Radiometry Protocols under review (May 2018)
- **IOCS-2019 development underway – 14-17 May, Busan, South Korea**
- Draft of IOCCG/VC White Paper on polarization requirements underway
- IOCCG Summer Lecture Series - 25 June- 6 July 2018 (Villefranche)
- **Aquatic Carbon from Space special journal issue under discussion**



- WGClimate – IOCCG/OCR-VC members responding to VC questionnaire & identifying common agency themes/goals in support of WGClimate:
 - Refinement and alignment of GOOS EOVs with ECVs (observational requirements and data records),
 - Refinement and update of OC ECVs for next GCOS IP,
 - Ensuring inclusion of ocean biological, biogeochemical, and ecological data records in WP efforts, especially Carbon Strategy implementation,
 - Undertaking gap analysis to update OC ECVs inventory.
- Carbon Strategy implementation (as with WP) seems light on ocean biology/biogeochemistry; perhaps consider harmonization between documents?
- COVERAGE – currently including only chlorophyll and intended res 0.25 deg: CMEMS GlobColour, NASA MODIS-A-T & VIIRS, NOAA VIIRS & MODIS
- WGCV – interest in WGCV/GSICS lunar model development activities
- VC leadership/succession
- Range of agency engagement and participation, as needed



- All IOCCG/OCR-VC agencies are actively engaged, including NOAA, CSA, JAXA, KIOST, ESA, EUMETSAT, NASA, etc.
- Agencies/members meet 2-3 times per year, including the annual IOCCG meeting and 1-2 Executive Committee meetings (in conjunction with other meetings IOCS, OSM, Ocean Optics, and through telecons)
- Currently undergoing a leadership shift for the VC.
- VC is exploring moving beyond passive radiometry and examining advantages of LiDAR and polarimetry in ocean biological, biogeochemical, and ecological retrievals, specifically looking at/for observational/mission requirements and science harmonization with atmospheric groups (plankton LiDAR with aerosol and cloud communities); also looking at adapting different agency plans (INSITU-OCR/OCR-IT white paper requirements) for joint agency implementation (example: NASA has supported three new approaches for vicarious calibration of ocean color; EUMETSAT recently released a competition for Copernicus SVC preliminary design using similar requirements; ESA is running a FRM4SOC project)

