

Wednesday, 2:30-5:00 pm

IOCS Interactive Community Panel Discussion

Value of Ocean Color for the Benefit of Society: status and change in water quality and ecosystems – in 2 Parts



Megan Hunnicut
FL Dept of Agriculture



Maria Tzortziou
CCNY



Stacie Flood
S FL Water Mgmt Distr



Juan Ignacio Gossn
EUMETSAT



Andrew Kameronosky
Applied Ecology

See next page for
Part I full list.

Moderators:



Veronica Lance
NOAA



Merrie Beth Neely
GEO AquaWatch

Part 1 (Intermediary) Session Chairs:

- Veronica Lance – NOAA CoastWatch
- (Ryan Vandermeulen – NOAA Fisheries OST) Not able to participate

Intermediary Panelists:

- Juan Ignacio Gossn – EUMETSAT (OSOS-3)
- Maria Tzortziou – CCNY (Sea Grant; GLIMR (GeoXO))
- Cara Wilson – NOAA Fisheries; past Chair IOCCG
- Shungu Garaba – Univ. Oldenburg (IOCCG Marine Litter)
- Anthony Gidudu – Lake Victoria water quality
- (Emily Smail – GEO Blue Planet) Not able to participate

Part 2 (Proximal Decision Makers) Session Chairs:

- Merrie Beth Neely
- (Emily Smail – GEO Blue Planet) Not able to participate

Part 2 (Proximal Decision Makers) Panelists:

- Megan Hunnicutt, FL Dept of Agriculture
- Stacie Flood, South FL Water District
- Andrew Kameronosky, Consultant (Indian River, etc.), Applied Ecology

GOAL of both sessions!

List for agencies of what users need and want in products, training, engagement level, new product development.

Key outcomes from past IOCCG meetings:

- examples when less accurate data is better than no data.
- user interest in training, workshops and engagement levels
- tradeoffs between data quality and user needs, usability vs accuracy and validity
- single and longterm timeseries, consistent and stable, includes NRT time merged from multi-sensors.
- Anomaly Products

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Questions

What are the challenges/successes for users in exploiting ocean color applications for decision-making?

What do users desire for data interoperability, uncertainty reporting, etc.

What gaps exist within user needs? e.g. gapfree and multi-platform, blended observational capabilities, working in inland and coastal waters.

Highlights – Tangible and Intangible

TRUST

Communicate uncertainties –

- quantitative and qualitative,
- with the realization that for many users “some reasonable” data are better than nothing.
- However, we know that “bad” data are worse than nothing – find the balance
- See “ensembles”

Highlights – Tangible and Intangible

Leverage examples

- no desire (nor resources) to “reinvent the wheel”:
- “Help us help ourselves”
- Downstream users are smart, highly educated professionals but don’t have time to become experts in remote sensing
- Reproducible workflows to be shared, modified for use, etc.
- *User outreach activities; “Stories”; training modules, user fora, training modules, jupyter notebooks, You Tube, etc.*
- *Communicate farther downstream – connect with user agencies and their groups; NOAA CoastWatch new Water Prediction Node – collaboration with NOAA weather service. Exploit the reach of weather service “into every home’ to educate about possibilities*

Highlights – Tangible and Intangible

Finding data

- “Don’t keep “improving” platforms, websites;
- “One standard” –
- but the counter is that each persons use has different , so solution is interoperable datasets, tools exploit the search, user controlled dashboards for customization
- Use social science for better design/communication (applies elsewhere as well)
- *AI-based, “chat bot” like search tool*

Finding resources; Resource development

- Agencies need to invest in user engagement
- Engage different experience levels of users – meet users where they are
- User requests influence development of common products/tools
- Complaints when things are missing or not right indicates there are people really interested in using.

Highlights – Tangible and Intangible

Need for consistent and routinely updated (e.g., operational)

- time series
- fused data products
- Use case example: Fisheries Ecosystem-Based Management (NOAA)

Ensemble models/products

- (e.g., *GHRSSST*)
- Another way to build “trust” and communicate uncertainties (e.g., the public intuitively understands hurricane prediction “spaghetti” plots)

Highlights – Tangible and Intangible

Remotely sensed observations for “small” water bodies, quality and quantity

- Inland, freshwater lakes and rivers, bays and estuaries
- Leverage “weather service” regional channels for dissemination (in the US, e.g., Sea Grant; Land Grant; don’t know if there is an inland water grant org)

Forecasts and predictions in user applications

- Time for decision-making, response planning
- Ties into other data inputs (weather, physical oceanography/hydrography, etc.)

Root ideas for SMART Recommendations (to be completed)

OSOS-3 Endorse, promote

- OSOS-3: 57% of presentations showed the use of OC data
- Out of the ~50 people in the room only a handful had heard of it
- Co-developed and co-chaired by NOAA and EUMETSAT – KHOA hosted OSOS-3 in Busan in 2023: The next OSOS will be 2025.

User Engagement Task Force

- an additional tail of the IOCCG “octopus” – the opposite end of the professional development training
- Coordinate with other organizations and agencies who already do this (e.g., GEO AquaWwatch; GEO Blue Planet; CEOS, etc.)
- Endorse or “approved” existing training courses and or course content (modules) this (e.g., NOAA CoastWatch; Copernicus/EUMETSAT; NASA CapD, etc.)

Root ideas for SMART Recommendations (to be completed)

Time Series Task Force

Ensemble Task Force