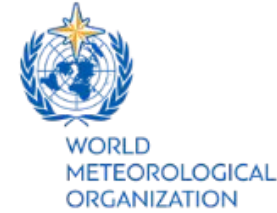


The Global Ocean Observing System



Session 6: Optimising synergy with the Ocean Decade

Part 3: The Decade Coordination Office for Ocean Observing and 11 ocean observing programmes, deep work in the Ocean Decade

Action #97: OASIS (Observing Air-Sea Interactions Strategy)
Meghan Cronin (USA), Christa Maradino (Germany), Seb Swart (Sweden)

Thirteenth GOOS Steering Committee Meeting [SC-13]
Barcelona 13th-16th April 2024

OASIS ACTIVITIES (select)

- Riihimaki et al. (In Press) “Ocean Surface Radiation Measurement Best Practice” – Endorsed by OceanSITES. **We request GOOS endorsement.**
- OASIS and OOPC are helping to develop a longterm partnership between TPOS Equatorial Pacific Experiment (TEPEX) and Pacific Community and Pacific Island-GOOS. **Request help with community building linking GOOS (TPOS), PI-GOOS GRA, SPC, OASIS and TEPEX.**
- Uncrewed Surface Vehicle Network for GOOS (Action #35.3 project linked to OASIS) is working to meet the attributes of an emerging network. USV for GOOS representatives have participated in OCG annual meetings in 2022, 2023, and in May 2024. **Request OCG and GOOS recognize the Uncrewed Surface Vehicle (USV) emerging network and provide guidance.**



2021 United Nations Decade of Ocean Science for Sustainable Development
2030

Improved Earth system (including ecosystem) forecasts for a predicted, clean, accessible, healthy, safe & productive ocean

Observing Air-Sea Interactions Strategy (OASIS) is harmonizing community recommendations from OceanObs'19 and UN Decade Laboratories... ...into three **Grand Ideas**

Arico et al. (2021), Bax et al. (2018), Benson et al. (2018), Cronin et al. (2021), Fennel et al. (2018), Foltz et al. (2019), Hermes et al. (2019), Maximenko et al. (2019), Smith et al. (2019), Speich et al. (2019), Wanninkhof et al. (2019)

Centurioni et al. (2019), Groom et al. (2019), Harcourt et al. (2019), Jamet et al. (2019), Muelbert et al. (2019), Muller-Karger et al. (2018), Newman et al. (2019), Lombard et al. (2019), Marandino et al. (2022), Kent et al. (2019), O'Carroll et al. (2019), Sequeira et al. (2021), Steinhoff et al. (2019), Subramanian et al. (2019), Swart et al. (2019), Villas Bôas et al. (2019), Arduin et al. (2019b), Bourassa et al. (2019), Gentemann et al. (2020), Gommenginger et al. (2019), Morrow et al. (2019), Rodriguez et al. (2019), Shuter et al. (2020), Vinogradova et al. (2019)

Meinig et al. (2019), Pearlman et al. (2019), Sabine et al. (2020), Smith et al. (2019), Wang et al. (2019)

SCOR Working Group 154 (2020)

Grand Idea #1
A globally distributed in situ air-sea observing network built around an expanded array of time series stations

Grand Idea #2
Satellites optimized for air-sea fluxes

Grand Idea #3
Improved models & understanding of air-sea interaction processes

PARTNERS

- MARINER
- STUDENT
- BEST PRACTICE EXPERT
- DATA SPECIALIST
- ENGINEER
- PRODUCT DEVELOPER
- ANALYST
- PRINCIPAL INVESTIGATOR
- INSTITUTION

Air-sea interaction information could be significantly expanded ... by developing a culture of mentorship and partnership

OBSERVATION PLATFORM

DERIVED VARIABLES

- HIGH RESOLUTION SURFACE ESSENTIAL OCEAN VARIABLES (EOV)
Considered both derived and measured
- ESSENTIAL CLIMATE VARIABLES (ECV)
- ESSENTIAL BIODIVERSITY VARIABLES (EBV)

MEASURED VARIABLES

Making platforms multidisciplinary and multifunctional, the OASIS network can provide high-quality air-sea fluxes that serve multiple stakeholders.

SCALE

- GLOBAL
- REGIONAL
- LOCAL

EXAMPLE

OASIS Grand Ideas And Theory of Change “Grandest Idea of All”

Image: Sarah Battle/NOAA visit: airseabs.org

OASIS FUNDING PITCHES

- (1) Early Career Ocean Professionals (ECOP) Honorariums, travel, page charges.
- (2) Creation of a website and data portal for the “Uncrewed Surface Vehicle (USV) network for GOOS”
- (3) OASIS project office
- (4) Support for community workshops
- (5) Data buys for air-sea interaction observations (e.g. from Saildrone, Inc., Sofar, Inc) delivered to public “Open Data” repositories and modeling & data centers around the world, with support of mission management and scientific analyses
- (6a) “Scientist in Residence” scientific extended visits (2 weeks or longer) to SIDS & the Global South and
- (6b) Paid internships to foster international collaboration
- (7) OASIS Graduate Research Fellowships with advisors & mentors from different institutions & countries



OASIS Face to Face Workshop

February 17-18, 2024
New Orleans, LA USA



More than 54 In Person Participants with
ECOPs from Africa, Europe, Australia,
Asia, South America, North America.
Online participants as well.