Surface UNcrewed Fleet

GOVERNANCE WORKSHOP

SUMMARY REPORT
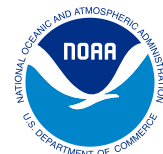
Executive Summary

The SUN Fleet Governance Workshop held on Oct 20-21, 2025 at the University of Washington in Seattle WA, USA, laid out the basic structures and priorities needed to move the global USV community from planning to coordinated implementation in 2026. Participants agreed on an interim governance model, identified scientific and data standardization needs, and outlined short-term technical products, including metadata guidance, a data policy, and interoperability tests with other GOOS networks. The workshop also highlighted the importance of having a staffed program office to support coordination, communication, and metadata workflows, along with expanding capacity development and stakeholder engagement activities. These elements create a clear roadmap to develop a scalable, interoperable surface-observing system that strengthens GOOS and advances national and international ocean-observing goals.

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SUN Fleet Workshop Summary

The SUN Fleet Governance Workshop marked a transition from community scoping to building an implementable framework for a coordinated global network of Uncrewed Surface Vehicles. Participants refined the governance structure, reviewed OCG expectations, established 2026 priorities, and identified foundational activities that will require sustained coordination resources. The workshop demonstrated strong community alignment around the value of USVs for small-scale air-sea interaction, rapid response sampling, and multidisciplinary observing.

Governance Structure Confirmed:

An Interim Steering Committee will finalize the governance framework and activate the Steering, Science, and Data Committees. These committees will guide scientific priorities, data standards, interoperability planning, stakeholder engagement, and OCG deliverables.

Technical Deliverables Defined:

The community agreed on key near-term products, including the SUN Fleet Data Passport, international metadata guidance, a draft USV data policy, BUFR and non-GTS EOV templates, OBPS documentation, and FAIR-aligned data and governance practices.

Interoperability Priorities:

Planned work includes coordinated experiments with OceanGliders, SOCONET, GO SHIP, SOT, GLOSS, and GO USVs to improve cross network compatibility and sampling efficiency. These activities require structured facilitation, technical support, and travel resources.

Membership and Stakeholder Processes:

The network will formalize scientific and industry membership pathways, develop conflict of interest procedures, and establish a stakeholder reference group to ensure transparency and alignment with OCG guidance.

Capacity Development and Global Representation:

The community highlighted the need for regional USV data workshops, a global webinar series, and targeted support for developing regions and SIDS to reduce entry barriers and expand participation in SUN Fleet activities.

SUN Fleet Interim Committee

The Interim Steering Committee was established to guide SUN Fleet through its first year of coordinated development, finalize the governance framework, activate the Science and Data Committees, and oversee early technical and organizational milestones. The interim committee is open for broader participation, and a nominations sign up list is available for community members interested in contributing to the network's leadership and early implementation efforts.

SUN Fleet Governance

Governance Structure

The workshop participants created a framework featuring an Interim Steering Committee to oversee the first year of development, backed by a Program Office that handles coordination, communication, meetings, and administrative tasks. The core governance structure consists of three main bodies.

- **Steering Committee** for strategic direction, decision making, and alignment with GOOS OCG
- **Science Committee** for scientific priorities, global project tracking, and interoperability planning
- **Data Committee** for data and metadata standards, FAIR-aligned practices, and technical guidance

Purpose and Scope
SUN Fleet aims to enhance GOOS by enabling fine-scale air-sea observations and multidisciplinary sampling with USVs. It focuses on developing standards, coordinating priorities, ensuring interoperability, and providing open, quality-controlled data.

Resource Considerations
The document highlights the challenge of relying on volunteer coordination and emphasizes the need for ongoing support, data capacity, and funding to sustain global coordination, capacity development, and annual meetings.

2026 Priorities

- Publish the SUN Fleet Governance Document and finalize committee membership.
- Develop USV data and metadata standards with OCG and OceanOPS.
- Launch communications infrastructure including website, shared platforms, and branding
- Compile a global inventory of USV projects and assess feasibility of a SUN Fleet data assembly center
- Initiate coordinated interoperability experiments focused on EOVs and paired observing systems
- Advance private sector engagement and implement a fundraising strategy
- Plan the next annual governance workshop and associated reporting deliverables

Strategic Development

- Program office capacity to sustain coordination, communications, and administrative operations
- Data engineering support for metadata standards, interoperability tools, and documentation
- Engagement and capacity development activities, including regional workshops and ECOP support
- Travel and facilitation resources for cross-network coordination and OCG participation
- Development of membership, conflict of interest, and stakeholder engagement mechanisms to ensure credibility and transparency