

# NOW



## Network for Ocean Worlds

<https://oceanworlds.space>

Co-Leads:

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WHOI

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DRI

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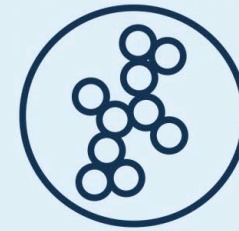
### Guiding the search for life beyond Earth in three key areas



Geophysics



Ocean Systems



Life

- Evolution of ice-covered ocean worlds
- Processes occurring at boundaries

- Habitability
- Sustenance of life through time

- Resource exchange
- Energy generation
- Signs of life

**Comparative studies with Earth's ocean and polar systems focusing on ice-ocean and ocean-rock boundaries**

## Objectives

- **Identify and stimulate** novel directions of inquiry through enhanced communication within NASA's ocean worlds PI community (PSD, ESD).
- **Pursue** activities that both reveal and address critical knowledge gaps in ocean worlds research.
- **Stimulate and facilitate** new ocean worlds collaborations to undertake high-impact interdisciplinary research.
- **Identify and integrate** research on Earth and other ocean worlds (e.g. oceans, their interiors, their cryospheres) to catalyze synergistic studies that identify the conditions and potential for life.
- **Cultivate and augment** the training of a new generation of interdisciplinary ocean worlds researchers.

## Steering Committee: OW Projects from 14+ NASA Calls

- Within Astrobiology / PSD

CDAP

ColdTech

ExoBiology

ICEE-2

HW

MatISSE

NPP

PICASSO

PSTAR

SESAME

SSW

- Within Earth Sciences

Cryosphere

Ocean Circulation

Ocean Biogeochemistry

## Steering Committee: 43 Teams Represented

Sam Bailey

Laurie Barge

Will Brinkerhoff

Kathy Bywaters

Kate Craft

Tom Cwik

Christian d'Aubigny

Cristina Dalle Ore

Christine Foreman

Dominique Fourgette

Peter Girguis

Jen Glass

Jacqui Grebmeier

Kimberly Halsey

Kevin Hand

Matthew Hedman

Bryana Henderson

Tori Hoehler

Sam Howell

Karen Junge

Shannon Mackenzie

Mike Malaska

Paty Matrai

Gareth Meirion-Griffith

Jill Mikucki

Beth Orcutt

Louise Prockter

Noah Randolph-Flagg

Kirt Robinson

James Roberts

Karyn Rogers

Leslie Rogers

Richard Quinn

Britney Schmidt

Ella Sciamma-O'Brien

Sven Simon

Amy Smith

Pablo Sobron

Alejandro Soto

Bill Stone

Jonathan Toner

Steve Vance

Dale Winebrinner



Science & technology research for exploring ocean worlds

**StComm Kick-Off: Dec 4 & 5, 2019**

## **Hi-Octane Mix of Plenary & Breakout Activities**

- **Networking - Functionality Priorities**
- **Research – Ocean Worlds Priorities**
- **Relevance – Familiarization / Engagement with NASA Missions**

## Priority Research Areas

- Physical & Chemical Properties of Ocean Worlds
- Life Detection on Ocean Worlds
- Establishing Well-Validated Analog Study Sites for Ocean Worlds
- Coordinating Technology Development for Ocean Worlds Missions

## Network Coordination Activities

- NOW Membership & Mentorship
- Communication *within* the NOW Network
- Workshops, Field Trips and Meetings
- Public Outreach & Education
- Synergies *beyond* the NOW Network



## Initial Activities - 2020

- Monthly NOW St. Comm. Meetings (Virtual, F2F on Sep 10)
- Coordinate NOW Decadal Plan Responses
- Dedicated Session at AGU Ocean Sciences 2020 (Feb. 18)
- Quarterly NOW Ocean Worlds Lecture Series (SI, EI in March)
- Community **Ocean Worlds Meetings** (OW5, Sep. 8 & 9)

## Metrics for Success

- **Research Collaborations** traceable to NOW activities
- **Influence** of NOW-disseminated information
- **Expansion** of the ocean worlds community
- **Incorporation** of NOW expertise into future NASA missions