

OCEAN WATCH DISCOVERY AND EXPLORATION CONCEPT

Goal

To comprehensively monitor, assess, and understand the world's oceans.

The Challenge

Globally, no system exists that meets the scale or scope needed to achieve this goal. We must explore “Inner Space”—the 70% of our planet that remains underexamined.

Our Vision

- Expand global knowledge of the ocean to better understand the factors affecting ocean health.
- Develop data models critical to national security strategy.
- Pursue innovative technologies and large-scale systems capable of long-term, consistent ocean monitoring across vast areas.
- “Wire” the oceans—similar to how landmasses are connected—to collect robust, continuous data.

Progress So Far

The LJ STEAM Foundation (a 501(c)(3) nonprofit) assembled a team of experts and change-makers to define goals and seek partnerships. A conceptual system was developed and reviewed with support from Google. An Ocean Health Meeting validated our approach.

Despite advances, our understanding of the oceans remains limited. To address this, we must:

- Establish long-term, consistent, and large-scale ocean observation.
- Fill data gaps with new technologies that inform researchers and policy makers.
- Develop reliable tools—such as ocean thermometers and acoustic networks—to capture accurate data.
- Leverage emerging technologies (sensors, communications, autonomous systems) beyond experimental stages.

Just as the Internet and GPS revolutionized society, wiring the ocean can unlock transformative scientific and societal benefits.

Proposed Approach

- Begin with small-scale, proof-of-concept deployments in the Arctic.
- Build toward a long-term, global Ocean Exploration Program with sustained operations and commercial applications.
- Form strong public-private partnerships across research, philanthropy, and industry sectors.

Core Team

- Ann Kerr, Ann Kerr, LLC & LJ STEAM Foundation
- Steve Koonin, Hoover Institution
- Bran Ferren, Applied Minds Inc.
- Art Baggeroer, MIT
- Peter Mikhalevsky, Leidos
- Matt Dzieciuch, SIO
- John Orcutt, SIO

Since launch, dozens of experts from academia, industry, government, and the private sector have joined the effort, including many Roundtable attendees.