A Floating University for the Pacific Islands

Andra Whiteside

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The Pacific Community Centre for Ocean Science

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Outline

- Our Changing Ocean
- The Floating University Concept
- Program Development
- Pilot voyage 2024
- Potential Future Research Themes
- 2025 Voyage

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Our Changing Ocean

- The ocean sustains PI nations and communities.
- Unique islands yet connected by one ocean.
- Challenges such as sea level rise, ocean acidification and marine debris all impact the well-being of Pacific Island communities.
- The ocean itself that holds the key to understanding new and evolving challenges.
- With a greater ability to understand ocean systems and emerging challenges, Pacific Island nations may be able to shape how we progress toward a sustainable and resilient future.
- Ocean science is an expensive undertaking and limited opportunities to participate in operations and research at sea

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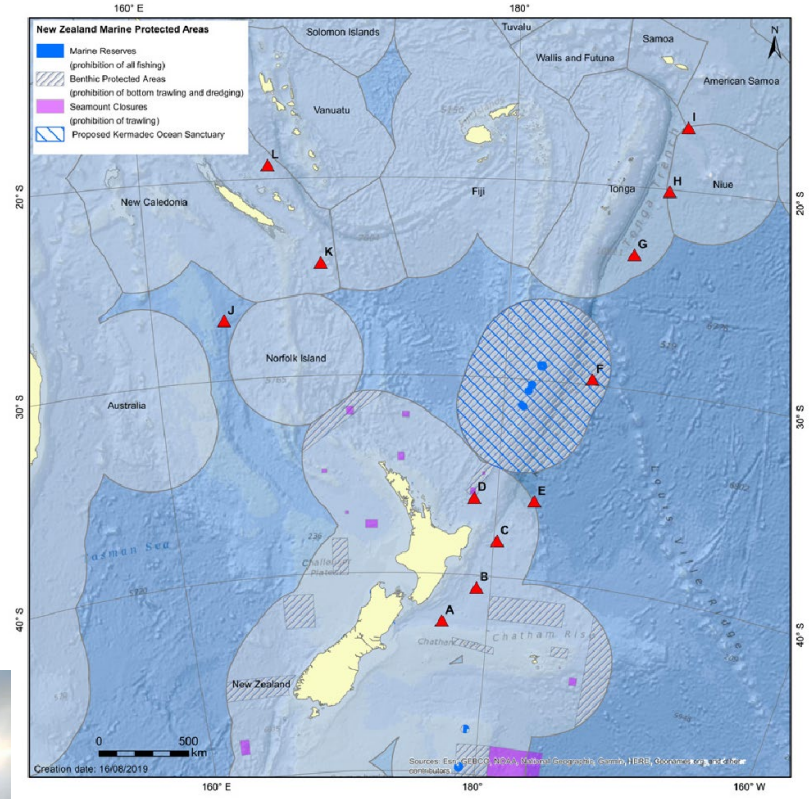
The Floating University

- Collaboration between NIWA and SPC
- Based initially on NIWA's scheduled cruises to service the deep ocean.
- Assessment and Reporting on Tsunami (DART) network established across SW Pacific.
- Support detection and analysis of potential tsunami risks.



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The Floating University concept

- Allow PI students and early career scientists to conduct research at sea driven by PI community needs and priorities.
- Support young scientists whilst meeting PI needs for ocean science.
- Training in operations, instrumentation, data management, analysis, and science communications

Photo: Eleanor Haigh (NIWA)

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Programme Development

First-year implementation plan developed where a mentor and student development team trialed concept during NIWA's June 2024 cruise.

June 2024

2025

Refine approaches for next round of participants in 2025.

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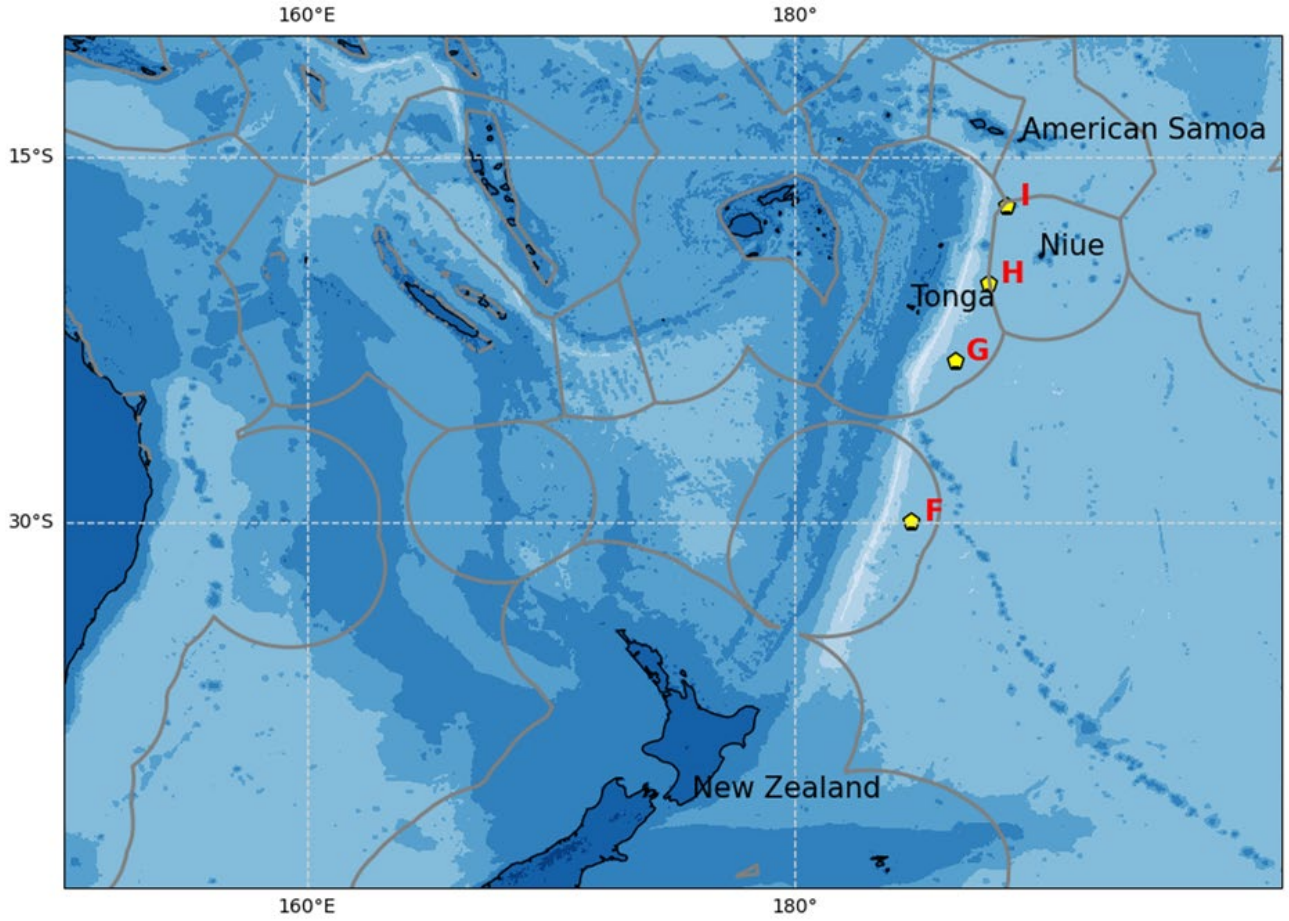
Pilot voyage 2024

- On its 8th DART trip

- Departed Wellington on 16/06 to 09/07, servicing sites at locations G, H, I and F.

- Pilot to explore possible curricula and logistical considerations for future voyages.

- Provide feedback and recommendations for future expeditions.



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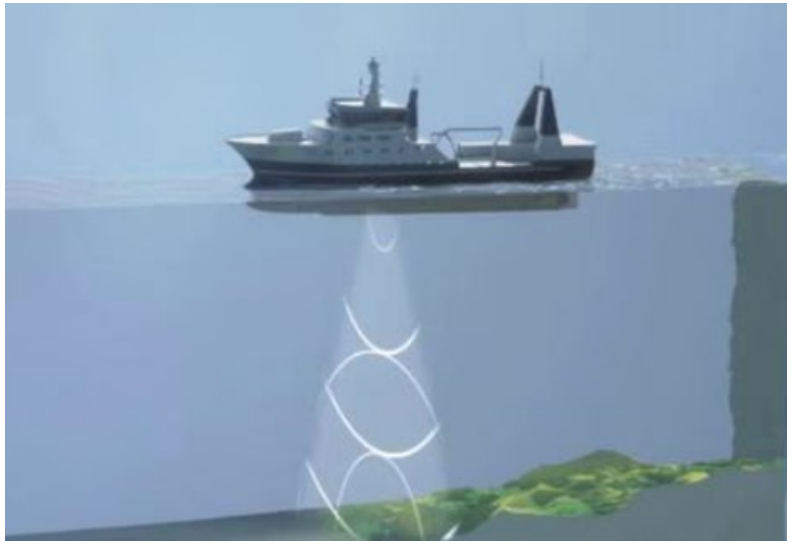
Floating University: Pilot 2024

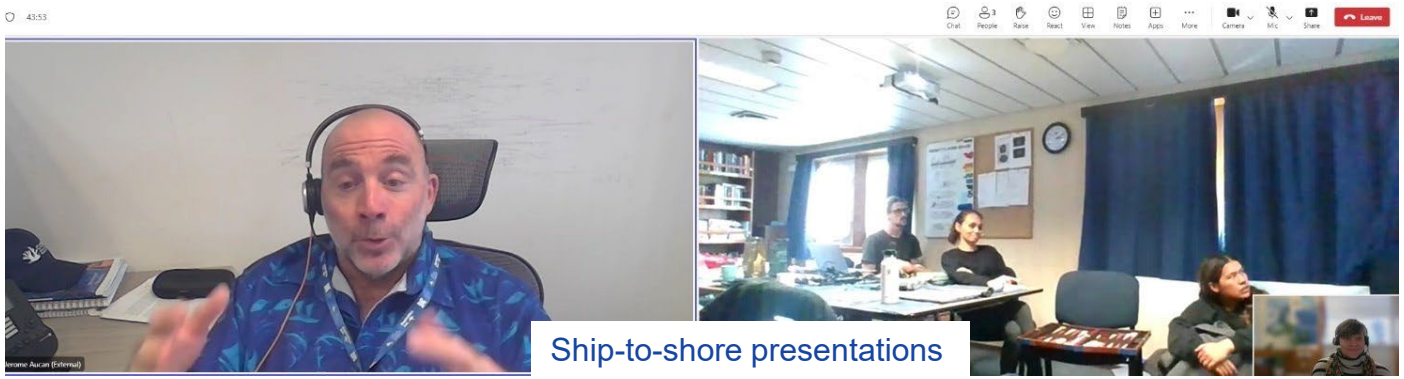
Study species size, abundance, and composition

Species identification - discovering unique and/or new species



Multi-beam echo sounder and sub-bottom profiler which produces high-resolution imagery of the geology

Water filtration (underway system)



Ship-to-shore presentations

Photos: Dr Rachael Peart (NIWA)

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Outcomes

- Help early career and young scientists progress and experience life at sea
- New data about ocean processes
- Strengthened networks and communities
- Enriched approaches to ocean science in the Pacific
- Better information and decisions about ocean resources

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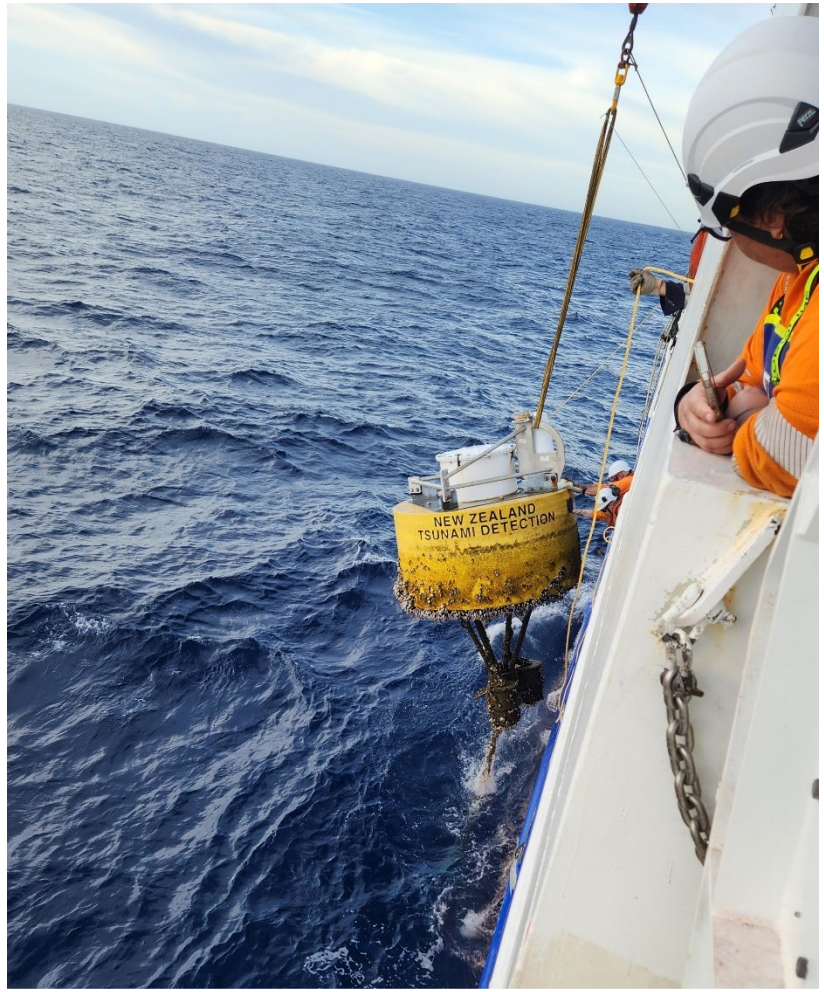
Potential Research Themes

DART data analysis (historic and latest data) to observe significant events detected by the buoys.

Understanding marine productivity in the SW Pacific and environmental variables.

Ground truthing exercise to work with global satellite observational data.

Seabed mapping. Access and analyse mapped bathymetric data for future research purposes.



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2025 Plan

- 2-3 participants
- Chosen with the help of the Advisory Board made up of Pacific Island ocean experts and Programme Development Team
- Tentative dates for voyage June 2025

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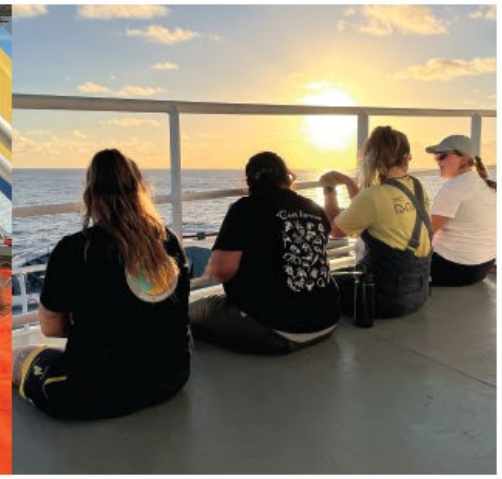
Vinaka vakalevu!

FLOATING UNIVERSITY



"We find very few Pacific island scientists that our students, our kids, our children, would like to aspire to become. It's easier to imagine yourself being an ocean scientist if it's somebody that looks like you."

Katy Soapi, Coordinator – Pacific Community Centre for Ocean Science (PCCOS)

Find out more about the Floating University

Contacts

Molly Powers-Tora
Molly.Powers-Tora@niwa.co.nz

Mike Williams
Mike.Williams@niwa.co.nz

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