



**35th International Research Ship Operators meeting
Meeting Minutes
Simon Fraser University - Morris J. Wosk Centre for Dialogue
Vancouver, Canada
September 23rd to 27th, 2024**

Host organization – Natural Resources Canada

Introduction

A total of 130 participants from 24 countries traveled to Vancouver to attend the 35th IRSO meeting, which highlighted the shared vision and aspirations of the research vessel operators' community in addressing evolving societal needs. The meeting also underscored the significant contributions of the wider IRSO community to advancing marine science and technology. This was the largest-attended IRSO meeting to date.

Sincere thanks to Natural Resources Canada (NRCan), Jennifer Vollrath for her assistance in planning and facilitating the logistics of the meeting, and to everyone who made the effort to attend and participate with such enthusiasm. The presentations were excellent, offering a wealth of valuable and insightful information. Additionally, 40 participants from the private sector, including shipyard representatives and scientific sensor developers, had the opportunity to showcase new trends and innovations in vessel design and equipment.

The meeting was a great success, and it was fantastic to enjoy once again the IRSO family.



35th IRSO group photograph.

Workshop: Monday 23rd September 2024

A four-hour open discussion on “Health, Welfare and Civility at Sea” was hosted by Rose Dufour, Alice Doyle, and Toni Moate.

Topics discussed included:

- *Managing time at sea:* Joost van der Zwagg- SIO , Yasuhiro Namba - JAMSTEC
- *Social and recreational activities:* Eric King- SOI
- *Building a culture of civility:* Ella Darlington – NOC, Greg Foothead- NIWA, Neus Roma Buyreu UTM-CSIC
- *Tools, Resources & Best Practices:* Adam Rutenberg – GWMMA, RDML Amanda Goeller – NOAA

Action item: Start populating the IRSO Health and Wellness website with resources available to IRSO members. These would include videos, examples of Codes of Conducts, mental health resources and training, etc. If you have something you are willing to share, please send an email to rdufour@nsf.gov or alice@unols.org. <https://irso.info/shipboard-civility-wellness-resources/>



Workshop participants, November 23, 2024.



Left to Right - Rose Dufour, Alice Doyle, and Jennifer Vollrath.

Monday evening - *Icebreaker*

A delightful "ice-breaker" cocktail and snacks evening was hosted at Tap & Barrel Bridges on Granville Island, generously sponsored by Glander International Bunkering.

IRSO Chair, Greg Foothead, Natural Resource Canada host, Jennifer Vollrath and sponsor, Alvaro Sierra from Glander International Bunkering welcomed all the participants and pointed out the importance of sharing information and resolution of problems of common interest for the research ship operators. This allows the marine scientific community's research efforts at sea to be ever better supported.



35th IRSO Icebreaker, Tap & Barrel Bridges on Granville Island, November 23, 2024.

Day 1: Tuesday 24th September 2024

Opening of 35th IRSO Meeting – Greg Foothead (Chair) and Giuseppe Magnifico (co-Chair) opened the meeting and greeted the members, commenting that it was great to see everyone again in person after the meeting in Bruges (Belgium).

Host Welcome and Opening Remarks – Sonia Talwar (NRCAN) welcomed the IRSO participants and began by acknowledging the traditional, unceded territories of the Coast Salish peoples, including the Musqueam, Squamish, and Tsleil-Waututh Nations, on which we gather today. This acknowledgment reflects respect for the land and the enduring connection that Indigenous peoples have to this region. Vancouver IRSO Organizing Chair, Jennifer Vollrath (NRCAN), then greeted the participants and provided an overview of the meeting logistics and emergency procedures.

Adopt of agenda of 35th IRSO – Greg Foothead (Chair) invited attendees to put forward any additional agenda items, none given. The agenda was adopted as written, although during the meeting some changes occurred.

Accept minutes of 34th IRSO, Bruges – No changes to the minutes suggested.

Round the room introductions of participants

Day 1 presentations:

[ERVO Update](#), Aodhan Fitzgerald - Marine Institute, Ireland

[RVONZA Update](#), Richard Brinkman - AIMS

[AIR Centre partners RV's including new constructions](#), Mafalda Carapuço – AIR Centre

[New Fisheries and Oceanography Research Vessel, "Dra. Barbieri"](#), Heinz Pearce - ASENNAV

[New insights into the hydrodynamic development of modern research vessels](#), Michael Palm - Voith

[NOAA – People, Platforms, Culture](#), Amanda Goeller- NOAA

["The research icebreaker CCGS Amundsen: Canada's most successful model](#), Alexandre Forest – Amundsen Science

["A decade of marine geoscience in the Arctic Ocean: On, under and through the ice"](#), Mary Lynn Dickson – NRCAN

[Update of Japan's Arctic research vessel "MIRAI II"](#), Yuko Mori – JAMSTEC & Yumihiko Kobayashi - MOL

[AIMS Indigenous Partnership Program and approaches for engaging with First Nations groups](#), Richard Brinkman - AIMS

[AIMS RV Replacement Program](#), Richard Brinkman – AIMS & Peter Thurling – AIMS

[Tools for Ocean Exploration and Discovery – A Kongsberg Perspective](#), Meme Lobecker - Kongsberg

[A replacement for the Celtic Explorer - Initial design requirements](#), Aodhan Fitzgerald – Marine Institute

[Update on Marine Facilities Planning Software](#), Beiko Maas - MFP

[Upgrading South Australia's Research Capability](#), Jane Ham - SARDI

[First purpose build research vessel for Northern Ireland, the story so far](#), Pieter-Jan Schön - AFBINI

Day 2: Wednesday 25th September 2024

Day 2 presentations:

[Communications and Cybersecurity - updates for RV's](#), Marwan Chartouny - OmniAccess
[Risk Management, Insurance, and Admiralty Law](#), Jonathan Guttoff - Roger Williams University School of Law
[Operation of Research Vessels in South Pacific, Chile](#), Gonzalo Pereira - IFOP
[Future Fuels](#), Mustafa El Zein - Glander Bunkering
[The Marine Scientific Research Diplomatic Consent Process](#), Amanda Williams – US State Department
[Focus on the French Fleet prospective at the horizon 2030 and beyond & Underwater technologies updates](#), Goulwen Peltier – IFREMER & Pierre Daelman – IFREMER
[New French Pacific and Atlantic regional vessel & RV Pourquoi Pas? Modernisation](#), Goulwen Peltier – IFREMER & Pierre Daelman – IFREMER
[Introduction to VARD and the vessel design process](#), Lee Grace - VARD
[R/V “Gaia Blu”: management and technical challenges in the first two years of operation](#), Lorenza Evangelista – CNR, Simona Villano-Argo & Pietro Rosiello - Argo
[JTRACK IODP Exp.405](#), Yasuhiro Nambay – Jamstec
[ABB Dynafin](#), Sampo Viheriälä - ABB
[The First 5 Years of R/V Legend](#), Shu-Heng Wu - Taiwan Ocean Research Institute
[Hydrogen hybrid zero-emission coastal class research vessel at Scripps Institution of Oceanography: Progress and plan](#), Bruce Appelgate - SCRIPPS
[Foreign vessel clearance procedures for marine research requests](#), Jennifer Vollrath - NRCAN
[NSF/OPP Antarctic Research Vessel project](#), Mike Prince - NSF
[Update on NUYINA operations](#), Imogen Pearce – Australian Antarctic Division
[Project Management: From Tender Specification to New Build Delivery](#), Lauren Stotz – Maritime Survey Australia

Conference Dinner: Top of Vancouver Revolving Restaurant

Perched 167m above the vibrant city of Vancouver, the restaurant offered more than just exquisite dining; it provided an unforgettable experience. The participants had the opportunity to wine and dine and foster working relationships. Everyone thoroughly enjoyed this wonderful evening.



Top of Vancouver Revolving Restaurant



View from the revolving restaurant looking at the Vancouver skyline



Dinner time

Day 3: Thursday 26th September 2024

Giuseppe Magnifico opened Day 3 by announcing that the 36th IRSO meeting will be held in Bergen, Norway in September 2025.

Day 3 presentations:

Managing an aging ship: The past, present, and future of RV Cefas Endeavour, James Parker – CEFAS
MBARI, David Packard, Will Moon - Glosten
Canadian Coast Guard's new OOSV, Jeff Neilsen – DFO-MPO
Sensor and data acquisition capabilities for science, Peter Reedecker, Darrell Groom -AML
Canada's Polar Icebreaker - Program Update, Chris Hall - Seaspan
Genavir's carbon footprint and ways of achieving a 30% reduction with an ageing fleet + FuelEU Maritime, Rémy Balcon - GENAVIR
Optimising ship time with international barter and collaborations, Eleanor Darlington – NOC
Lessons learned and considerations for early collaboration, system integration, equipment trends, and warranty risks for new build planning and retrofits, Colin Gillis - Hawboldt
New builds & overview of RV Pelagia operations over the last years before retirement, Zeynep Erdem - NIOZ
'Developments in UK autonomous campaigns – under ice and over the horizon', Maartin Furlong – NOC
RV Investigator Mid-Life Refit, Sam Hinton – CSIRO
Enabling multi-robot collaboration by integrating the Sonardyne Mini Ranger 2 system with the Robotic Operating System, Geraint West – Sonardyne
"Detained in Peru - a R/V FALKOR (too) Case Study", Eric King – Schmidt Ocean Institute
Improving Bubble sweep down issues on R/V FALKOR, Eric King – Schmidt Ocean Institute
Research Vessel Projects, from shipyards perspective, Luis Mourelle – Gondan Shipyard
Investigation Systems and Voyages of SONGHANG, Prof. Liming Song - Shanghai Ocean University
"Silent propulsion through icy waters – Equipment challenges in Polar Conditions", Trond Paulsen -Kongsberg

RV Operators and Delegates Closed Session:

Greg announced that he had fulfilled his tenure as an IRSO executive and would be passing the role of IRSO Chair to Giuseppe, who would assume the position of new Chair for the next two years. Greg also mentioned that he had received numerous nominations for Jennifer Vollrath to become the new IRSO Vice-Chair (replacing Giuseppe). No other nominations were put forth. Eric King formally nominated Jennifer, and Bruce Appelgate seconded the nomination. As a result, Jennifer was appointed as the new IRSO Vice-Chair.

An open forum discussion on the following topics:

1. Terms of Reference

Action item: establishing a volunteer group to draft a new version of the ToR to be presented during the next IRSO meeting.

2. Membership – Gradual increase in industry participation which makes the agenda very busy; important to leave more time for discussion among the RV Operators.

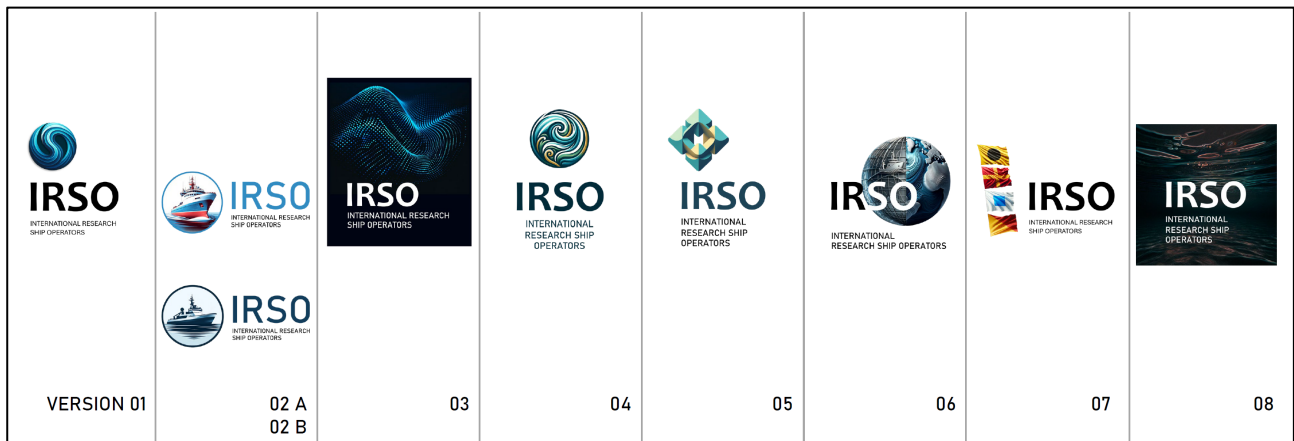
Action item: the IRSO Committee will take actions on the management of the IRSO meeting participation in the future; the decisions will be reported during the next meeting.

3. Website –

- i. The IRSO website needs a refresh and update
- ii. Greg presented some potential AI generated ideas for a new IRSO logo. (See below.)

Action items: launch a survey to identify the new IRSO logo. Create a virtual space to share documents, exchange information and post comments.

UNOLS confirmed support in the management of the website, but more administrative support is also needed in the organization of the annual meetings even if it depends on the host institute.



4. Working Groups – We would want to promote the run of regular virtual meeting in hybrid mode to improve the discussion and enlarge the geographical spread. Rose proposed the establishment of a Working Group on Safety. The new set-up of the group depends on the ambition of the group and on the activation of the WGs. Jennifer proposed to establish a formal board.

We confirmed the Working Groups on the following topic:

- a. MFP
- b. Heath & Wellbeing
- c. Cybersecurity
- d. Safety

Greg asked the institutions present for availability to host the next IMARTECH. NOC presented its candidacy which was accepted. IMARTECH 2025 will be hosted by NOC.

Day 4: Friday 27th October – Team Building

IRSO participants had the opportunity to visit the Seaspan shipyard and tour the new Government of Canada's Offshore Oceanographic Research Vessel, *CCGS Naalak Nappaaluk*. The group was divided into four smaller teams, with the visit lasting approximately two hours. During the tour, participants were able to explore the ship under construction, including its aft work deck, laboratories and cabins.



CCGS Naalak Nappaaluk, Offshore Oceanographic Research Vessel.

The team-building and social activities continued at BC Place Stadium, where participants attended a Canadian Football League match between the BC Lions and the Hamilton Tiger-Cats. They had the opportunity to watch the warm-up from the sidelines before enjoying the game from a VIP box, complete with pizza and drinks.



Watching the pre-game warm-up.