Argo Steering Team Meeting (AST-25)

Southampton, UK 18 – 22 March, 2024

Host: National Oceanography Centre

AST-25: 18 March 9h00 – 22 March 15h00

Location: NOC Seminar Room

[AST-25 Google Drive folder](https://drive.google.com/drive/folders/15Y2U-teSIdUJj9lqb-MYABiPEmDFIGbW?usp=drive_link)

Zoom link: <https://ucsd.zoom.us/j/96414127835?pwd=UnlPd3pPNmhMUEhJWmcrSVkxc2V2Zz09>

Blue text indicates a virtual speaker.

## Monday: OneArgo

1. 9:00am Welcome ( Ed Hill, 10 min)
2. 9:10am Local logistics and objectives of the meeting (AST co-chairs, 10 min)
3. 9:20am Status of Action items from AST-24 (Megan Scanderbeg, 15 min) <https://docs.google.com/spreadsheets/d/1IUW2WXVem_2t5eoGr4-omBo746y5Hqro3Ie4sGc4eSM/edit?usp=sharing>
4. 9:35am OneArgo float commitments for G7 + discussion (Brian King, 25 min)

10:00 - 10:20am Break

1. 10:20am OneArgo status and tracking how to communicate progress: overall picture by OceanOPS & discussion (Victor Turpin (25 min), AST co-chairs to lead discussion, 25 min)
2. **OneArgo implementation issues**
   1. 11:10 OceanOPS operational update (10 min – Mathieu)
   2. 11:20 EEZ updates & reminder of who has given concurrence, what countries need to do to grant concurrence ( Mathieu/Victor, 10 min)
   3. 11:30 AIC, OceanOPS funding (Breck Owens, 10 min)
   4. 11:40 Deployment coordination ( Fiona Carse, Tammy Morris, Sarah Purkey, Shigeki Hosoda 10 min)
   5. 11:50 Near surface sampling audit and recommendation (Brian King, 15 min)
   6. 12:05 Update on time of day sampling (Steve Riser, 15 min)
   7. 12:20 Update on interaction with manufacturers to provide float and sensor metadata in a similar JSON format (Brian King, 10 min)

12:30 - 13:45 Lunch

1. **OneArgo data management** 
   1. 13:45 Feedback from ADMT-24 (ADMT co-chairs, 30 min)
   2. 14:15 Data modernization discussion (ADMT co-chairs introduce, 20 min)
   3. 14:35 Reference data (Sarah Purkey, other missions?, 15 min)

14:50 - 15h10 Break

1. 15h10 Turbulence measurements on floats (Bieito Fernandez Castro, 15 min)
2. 15h25 Float performance update (Brian King, 30 min + 15 min discussion)
   1. Technical float workshop in September 2024
3. 16h10 Procurement (Vicky Savage, 5 min)
4. 16h15 Looking for float procurement efficiencies (Peter Oke, 20 min)

## Tuesday: BGC Argo

1. 9:00 BGC-Argo Introduction and status (Hervé + Ken + Orens): 10 min
2. BGC implementation (1.5h)
   1. National reports (1 slide / 18 countries): 40 min National PI
   2. General assessment of near term deployments : Orens + Ken + Hervé 10 min
   3. Priority areas (Orens – areas with few floats) 10 min
   4. Long term funding (USA Ken and others) 10 min
   5. Strategy towards space agency (Hervé) 10 min
   6. Revisiting the implementation plan (Ken + Hervé) 10 min
      * 1. What is a BGC float (5 or 6 param?)....
        2. Role of O2 only floats
        3. New sensors

10:40 - 11:00 Break

11:00 BGC sensors including Q & A with manufacturers (2:05)

* 1. 11:00-11:10 TTT/WG Intro (Edouard/Yui 10min)
  2. 11:10 – 11:20 OceanOPS monitoring (Orens: 10 min)
  3. 11:20 - 11:35 New chlorophyll sensors + WG (Julia/Antoine: 10min: 5 min sensor + 5 min WG + 5 Q&A)
  4. 11:35 – 11:50 New BBP sensors + WG (Giorgio: 10 min – 5 min sensor + 5 min WG + 5 Q&A)
  5. 11:50 – 12:05 New radiometer sensors + WG (Edouard: 10 min – 5 min sensor + 5 min WG + 5 Q&A)

12:05 - 13:20 Lunch

* 1. 13:20 – 13:35 pH availability and reliability (Yui 10min + 5 Q&A)
  2. 13:35 - 13:50 New oxygen sensors (Yui : 10 min + 5 Q&A)
  3. 13:50 - 14:00 Alternative nitrate sensor supplier (Henry : 5 min + 5 Q&A)
  4. 14:00 - 14:10 Underwater Vision Profiler (Hervé : 5 min + 5 Q&A)
  5. 14:10 – 14:20 Common themes from WB, Manufacturers feedback (10 min Q&A)

14:20 – 14:25 Break

14:25 BGC data management and products (2.5 h)

* 1. Data Management Task Team summary (Catherine/Tanya: 20 min)
  2. BGC Product: Example of the PAR – will computed PAR be considered an Argo parameter when calculated. Should we have product files (Pprof with derived products) (Herve/Ken, others: 15 min)
  3. How to produce a more uniform CHLA data set (Raphaëlle / Catherine 20 min)

15:20 – 15:40 Break

* 1. Secondary corrections to data - deep oxygen (500 – 2000m) analysis (Yui)
  2. What is BGC delayed mode? (Wijffels, Wong DM report) 20 min
  3. Basic data system structure, many BGC-DACs vs a few (Euro-Argo…Claire/ Yann-Hervé) 20 min

## Tuesday Evening reception

## Wednesday: Deep Argo & Polar Argo

**Deep Argo**

1. 9am Deep Argo implementation (1 hour 30 minutes)
   1. Status of the global Deep Argo array, Deep Argo objectives and scientific value (20-min, Nathalie and Virginie)
   2. Contribution from the national programs (50-min, 10 countries x 5-min talks from each national program)
   3. Discussion (20-min) on the factors limiting the implementation of Deep Argo

10:30 - 10:50 Break

1. 10:50am Deep CTD sensors (1 hour 40 minutes)
   1. RBR CTD and comparison with extended-depth SBE-41 and SBE-61 (15-min, Virginie)
   2. Progress on estimation at SeaBird of CPcor for individual SBE61s (20-min, Nathalie)
   3. Sampling procedure from the SBE41CP and SBE61, including pumping and timing (15-min, Rob Ellison)
   4. Update on development progress of the SBS61 a.k.a SBE61 with Keller pressure sensor (15-min, Rob Ellison)
   5. Update on the laboratory and field performance of the RBRargo|deep6k (15-min, Mat)
   6. Discussion on Deep Argo CTD performance (20-min)

12:30 - 13:45 Lunch break

1. 13:45 Deep DO sensors (30 min)
   1. Report on the RBR, Rinko, Aanderaa, and SeaBird Deep DO performance from the Tangaroa cruise (15-min, Nathalie, Phil and Denise with feedback from the Aanderaa, Rinko, RBR and SeaBird)
   2. Discussion on Deep Argo DO performance (15-min)
2. 14:15 Deep data management (15 minutes)
   1. Progress on identification of Deep Argo data on the GDAC (5-min, Megan )
   2. Discussion (10 min)
3. 14:30 Deep monitoring (30 minutes)
   1. Update on Deep Argo fleet monitoring from OceanOPS (15-min, Victor)
   2. Discussion on Deep Argo fleet status and evolution (15-min)
4. 15:00 Deep pilot measurements (30 min)
   1. Progress on deep ocean mixing measurements from Deep Argo floats (10-min, Arnaud Le Boyer)
   2. Progress on the development of the Scripps Deep Argo based bathymetry product (10-min. Nathalie, Megan, Kevin, Esmee)
   3. Discussion (10-min)

15:30 - 15:45 Break

**Polar Argo Mission** (1.5 - 2 hours)

1. 15:45 Polar Argo implementation (60 minutes) Nicholas, Esmee
   1. Status of the Polar Argo array, scientific value, challenges (15 mins)
   2. National contributions (deployments 2023/2024 and expected float commitments 2024/2025) (25 mins)
   3. ISA Tuning (5 mins)
   4. Under Ice Positioning/Navigation (5 mins)
   5. Ice hardware options (5 minutes)
   6. Reporting of under ice data (ice evasion status) (5 mins)
2. 16:45 Technologies for sustained, autonomous polar observing: acoustic navigation, networked autonomous systems, gliders and floats. Craig Lee (10 mins)
3. 16:55 Measurements of sea ice draft from floats. James Girton TBC (10 minutes)
4. 17:05 SOCCOM under-ice performance. Steve Riser (10 min)
5. 17:15 Ice floats beneath ice shelves. Pierre Dutrieux/Pierpaolo Falco (15 mins)

## Thursday (closed morning):

1. 9:00am Float technical updates
   1. Core floats (10 min each)
      1. APEX (Steve Riser)
      2. ALTO (Steve Jayne)
      3. SOLO-II (Nathalie Zilberman)
      4. Arvor (Romain Cancouet)
      5. MRV S2A (Pelle Robbins)
      6. Navis (Gregory Johnson)

10:00 - 10:20am Break

* 1. 10:20 Deep floats (10 min each)
     1. Deep SOLO (Nathalie Zilberman)
     2. Deep Arvor (Xavier Andre)
     3. MOBI/OSEAN (Shigeki Hosoda)
     4. Xuanwu (Zhaohui Chen)
  2. 11:00 BGC floats (10 min each)
     1. PROVOR (Edouard Leymarie)
     2. BGC Navis (Steve Riser)
     3. BGC SOLO (Sarah Purkey)
  3. 11:30 Under-ice floats
     1. SOLO Arctic float (Craig Lee, Dan Rudnick 10 min)
  4. 11:40 ASD update (Delphine Dobbler/Birgit Klein, 15 min)

1. 11:55 Core CTD Sensors
   1. SBE (Nathalie Zilberman, 10 min)
   2. RBR (Mat Dever via video, Gregory Johnson (PMEL), 25 min)

12:30 - 13:45 Lunch

**Thursday afternoon**

This session is open and will feature vendor presentations.

13:45 Discussion on how to implement new process for issuing float stickers (Mathieu/Victor, 15 min)

Manufacturers presentations per invitation from AST co-chairs

1. 14:00 Platforms (SBE, TWR, MRV, NKE – 20 min each)
   1. Questions to all: float sticker email address, end of life management, JSON metadata

15:20 – 15:40 Break

1. 15:40 CTD Sensors (SBE, RBR – 30 min each)
   1. Questions to all: JSON metadata
2. 16:10 BGC Sensors (Trios, Aanderaa, JFE, SBE, RBR 15 min each)

## Friday

1. **Demonstrating OneArgo’s value**
   1. 9:10 Argo communication, websites updates, bibliography & BGC-Argo initiatives (Megan Scanderbeg, Orens de Fommervault, 30 min)
   2. 9:40 OneArgo as part of UN Ocean Decade (Megan Scanderbeg, Orens de Fommervault, 20 min)
   3. 10 :00 OneArgo communication efforts - brochures, etc (EuroArgo 15 min)
   4. Others?

10:20 - 10:40 Break

1. 10:40am Interactions with super users
   1. SynObs presentation (Elisabeth Remy, 30 min), Discussion 15 min
   2. Explanation of CORA update process (Tanguy Szekely, 15 min)
   3. Explanation of EN4 update process (Rachel Killick, 15 min)
2. 12:00pm Upcoming International science workshops (40 min)
   1. See all meetings listed here: <https://docs.google.com/spreadsheets/d/1xoTDysJ4cwJWyrNVxMI_fLlF2qVZfxWB8U5BmLF1NVQ/edit?usp=sharing>
   2. UN Ocean Decade, June 2025 in France : (https://oceandecade.org/news/united-nations-general-assembly-adopts-resolution-confirming-2025-edition-of-un-ocean-conference-in-france/ ) Virginie *Thierry, Herve Claustre to lead* d*iscussion 30 min*
   3. UN Ocean Decade in Barcelona, 10 - 12 April 2024 (<https://oceandecade-conference.com/2024-ocean-decade-conference-launch-of-calls-for-posters-and-oral-presentations.php> ) *Orens de Fommervault, 5 min*
   4. US Clivar: pathways connecting climate changes to the Deep ocean work, 23 - 25 April 2024 in Delaware, US (Pathways Connecting Climate Changes to the Deep Ocean: Tracing Physical, Biogeochemical, and Ecological Signals From Surface to Deep Sea | US CLIVAR) Nathalie Zilberman, Sarah Purkey attending
   5. OCG-15, 15 - 17 May 2024 in Canada (https://www.goosocean.org/index.php?option=com\_oe&task=viewEventRecord&eventID=3981 )
   6. 8th WMO Workshop on the Impact of Various Observing Systems on Numerical Weather Prediction and Earth System Prediction, 27 - 30 May 2024 in Sweden (https://community.wmo.int/en/meetings/8th-wmo-impact-workshop-home ) Peter Oke, Virginie Thierry, Joellen Russell attending
   7. International Sea Level Workshop, 4 – 6 June 2024 in Brest, France ([2024 Sea Level Workshop - Sciencesconf.org](https://2024-sealevel.sciencesconf.org/)), Virginie Thierry attending
   8. 30 Years of Progress in Radar Altimetry, 2 - 6 September, 2024 in Montepelier, France (<https://www.altimetry2024.org/> ), Nathalie Zilberman attending
   9. PICES meeting, 6 Oct - 1 Nov, 2024 in Honolulu, Hawaii, USA (https://meetings.pices.int/meetings - pices-2024 )
   10. OceanPredict Symposium, 18 Nov – 22 Nov, 2024 in Paris, France

12:40 - 14:00 Lunch

1. 14:00 Future Argo Meetings
   1. Technical Workshop, September 2024 in Seattle (Pat McMahon, 5min)
   2. ADMT-25, 20 - 25 October, 2024 in Trieste, Italy
   3. AST-26, proposed by Scripps to host the week of: 14 – 18 April 2025
2. 14:10 AST membership & other business
3. 14:20 Review of action items

15:00 END of meeting