

# 4<sup>TH</sup> CLIVAR GSOP IQUOD 2<sup>ND</sup> IODE SG-IQUOD 1<sup>ST</sup> SCOR WG 148

3<sup>rd</sup>-5<sup>th</sup> October 2016 (2.5 days)

<http://tokyo2016.xbt-japan.org/>

## Venue:

### *JAMSTEC Tokyo Office*

Fukoku Seimei Bldg. 25F, 2-2-2 Uchisaiwaicho, Chiyoda City, Tokyo 100-0011, Japan

- [Location map incl. the nearest station from Airport](#)
- [Another map incl. nearby subway stations](#)

Exterior of a Fukoku Seimei Bldg. (from [HIBIYA CITY Web](#) (in Japanese))

ROOMS: A + B



## Organizers/Steering Team

### **Organizing Committee**

- Catia Domingues (University of Tasmania, Australia / co-chair of IQuOD Steering Team)
- Gustavo J. Goni (AOML/NOAA, USA)
- Masayoshi Ishii (MRI/JMA, Japan / chair of XBT-Japan)
- Shoichi Kizu (Tohoku University, Japan)
- Matthew Palmer (Met Office, UK / co-chair of IQuOD Steering Team)
- Kanako Sato (JAMSTEC, Japan)
- Janet Sprintall (SIO/UCSD, USA)
- Toru Suzuki (MIRC, Japan)

### **IQuOD Steering Team/SG-IQuOD\***

- Tim Boyer (NCEI/NOAA, USA)
- Rebecca Cowley (CSIRO, Australia)
- Catia Domingues (University of Tasmania, Australia / co-chair)
- Gustavo J. Goni (AOML/NOAA, USA)
- Simon Good (Met Office, UK)
- Viktor Gouretski (Universitat Hamburg, Germany)
- Matthew Palmer (Met Office, UK / co-chair)
- Janet Sprintall (SIO/UCSD, USA)
- Charles Sun (NCEI/NOAA, USA / chair of IODE SG-GTSP)
- Toru Suzuki (MIRC, Japan)
- Ann Gronell Thresher (CSIRO, Australia)
- Susan Wijffels (CSIRO, Australia)

### **XBT Workshop Organizers**

- Gustavo J. Goni (AOML/NOAA, USA / co-chair of XBT Science Team)
- Shoichi Kizu (Tohoku University, Japan)
- Janet Sprintall (SIO/UCSD, USA / co-chair of XBT Science Team)

### **Local Organizers/XBT-Japan\*\***

- Ken-ichi Amaike (T.S.K, Japan)
- Masayoshi Ishii (MRI/JMA, Japan / chair of XBT-Japan)
- Yasuhiko Karigome (JODC, Japan)
- Shoichi Kizu (Tohoku University, Japan)
- Tsurane Kuragano (MRI/JMA, Japan)
- Toshiya Nakano (JMA, Japan)
- Yutaka Michida (AORI/The University of Tokyo, Japan / co-chair of IOC-IODE)
- Kanako Sato (JAMSTEC, Japan)
- Yugo Shimizu (NRIFS/FRA, Japan)
- Toshio Suga (Tohoku University, Japan)
- Toru Suzuki (MIRC, Japan / contact person for logistic information)
- Tamaki Yasuda (JMA, Japan)
- Hiroyuki Yoritaka (Kochi University, Japan)

\* IODE-IQuOD project was established by IODE-XXIII (2015) through [Recommendation IODE-XXIII.3](#) and the project is managed by the [IODE Steering Group for the IODE-IQuOD project \(SG-IQuOD\)](#).

\*\* XBT-Japan means the Working Group for Recompilation of Historical XBT Database, Japan Group of Experts to Advance IOC Programs.

# YOUKOSO!

We greatly thank financial support from the [Environment Research and Technology Development Fund \[ 2-1506 \]](#) of the [Ministry of Environment, Japan](#) and the International Council for Science, Scientific Committee on Oceanic Research (SCOR) via Working Group 148 ([http://www.scor-int.org/SCOR\\_WGs\\_WG148.htm](http://www.scor-int.org/SCOR_WGs_WG148.htm)).

IODE-IQuOD project was established by IODE-XXIII (2015) through [Recommendation IODE-XXIII.3](#) and the project is managed by the [IODE Steering Group for the IODE-IQuOD project \(SG-IQuOD\)](#).



## Workshop objectives

- Update on recent IQuOD activities, particularly SCOR WG 148 and IOC/IODE.
- Delivery status of the 1st IQuOD data/flavour version: progress on the development/implementation of intelligent metadata, (random) uncertainty estimates, exact duplicates flagging, platform for Auto QC benchmarking and setting up public delivery.
- Plans towards benchmarking auto QC procedures using high quality reference datasets.
- Plans towards implementation of further advances for intelligent metadata, uncertainty estimates and duplicates.
- Discussion on potential approaches for expert QC & implementation.
- Discussion on potential approaches for implementation of knowledge transfer and capacity building, particularly in developing countries.
- Establishing synergies between IQuOD & XBT science team.
- Reviewing goals and actions for 2017/18 & planning for the 5th IQuOD workshop.

Note: some talks/discussions having been schedule to allow for remote participation considering various timezones.

## MONDAY – 3<sup>RD</sup> OCTOBER

| Chair: Steve Diggs / Notetaker: Alison Macdonald |  |  |                 |
|--|--|--|-----------------|
| 9.00 – 9.10                                      | Welcome by local organiser, logistics and workshop objectives  | Masayoshi Ishii, Toru Suzuki                   | 10 min          |
| 9.10 – 9.40                                      | <u>Japanese data rescue activities and related topics</u>  | Masayoshi Ishii, Toru Suzuki                   | 20 min + 10 min |
| 9.40 – 10.00                                     | <u>Current IQuOD structure, summary of recent activities, IOC/IODE and SCOR WG 148</u>   | Catia Domingues, Matt Palmer                   | 15 min + 5 min  |
| 10.00 – 10.20                                    | SCOR WG 148 deliverables: years 1, 2 and 3   | <u>Catia Domingues</u> , Matt Palmer           | 15 min + 5 min  |
| <b>10.20 – 10.50</b>                             | <b>Coffee break</b>  |  | <b>30 min</b>   |
| 10.50 – 11.10                                    | <u>The World Ocean Database as dissemination tool for IQuOD</u>  | Tim Boyer                                      | 15 min + 5 min  |
| 11.10 – 11.30                                    | <u>IQuOD Duplicates – initial steps</u>  | <u>Ann Thresher</u> , Ed King                  | 15 min + 5 min  |
| 11.30 – 11.50                                    | <u>Update on assessing the Japanese wartime hydrographic survey</u>  | Shoichi Kizu                                   | 15 min + 5 min  |
| 11.50 – 13.00                                    | <b>GDAC</b> Interactions with other task teams: Need for a file format/data compliance task team? Strategy for uptake of high quality datasets? (eg, Hydrobase). Roadmap for implementation of <b>exact and near-exact duplicates</b> algorithms into IQuOD dataset versions | Discussion led by Tim Boyer and Ann Thresher   | 70 min          |
| <b>13.00 – 14.00</b>                             | <b>Lunch</b>   |  | <b>60 min</b>   |
| Chair: Shoichi Kizu / Notetaker: Ann Thresher    |  |  |                 |
| 14.00 – 14.20                                    | <u>Progress on a new Met Office temperature and salinity dataset with incorporated uncertainties</u>   | Rachel Killick                                 | 15 + 5 min      |
| 14.20 – 14.40                                    | Uncertainty task team: summary of activities   | Bec Cowley                                     | 15 min + 5 min  |
| 14.40 – 15.40                                    | Roadmap for implementation of <b>uncertainty</b> into IQuOD dataset versions   | Discussion led by Bec Cowley                   | 60 min          |
| <b>15.40 – 16.00</b>                             | <b>Coffee break</b>  |  | <b>20 min</b>   |
| 16.00 – 16.30                                    | <u>Intelligent metadata task team: summary of activities</u>   | <u>Matt Palmer</u> , Shoichi Kizu, Toru Suzuki | 20 min + 10 min |
| 16.30 – 17.30                                    | Roadmap for implementation of <b>intelligent metadata</b> into IQuOD dataset versions. Synergies between IQuOD & XBT science team  | Discussion led by Catia Domingues              | 60 min          |

## TUESDAY – 4<sup>TH</sup> OCTOBER

| WebEx Test for remote participants |                         |             |        |
|------------------------------------|-------------------------|-------------|--------|
| 7.45 – 8.45                        | For remote participants | Local hosts | 60 min |

| Chair: Toru Suzuki / Notetaker: Bec Cowley      |   |   |                 |
|---|---|---|-----------------|
| 9.00 – 9.20                                     | <u>CMEMS in situ TAC – A service for operational oceanography</u>   | Thierry Carval                                  | 15 min + 5 min  |
| 9.20 – 9.40                                     | <u>Coriolis data quality control system</u>   | Christine Coatanoan                             | 15 min + 5 min  |
| 10.15 – 10.30                                   | <u>Further developments of the ICDC automated data quality control scheme with application for ocean climatologies</u>                  | Viktor Gouretski                                | 15 min + 5 min  |
| <b>10.50 – 11.20</b>                            | <b>Coffee break</b>   |   | <b>30 min</b>   |
| 11.20 – 11.40                                   | <u>CCHDO and IQuOD</u>  | Steve Diggs                                     | 15 min + 5 min  |
| 11.40 – 12.00                                   | <u>Crowd sourcing discussion</u>  | <u>Steve Diggs</u> , Tim Boyer and Alison       | 15 min + 5 min  |
| 12.00 – 12.10                                   | <u>Expert QC task team: summary of activities</u>   | Ann Thresher                                    | 10 min          |
| 12.10– 12.30                                    | Drafting a roadmap for development & implementation of <b>expert QC</b> into IQuOD dataset versions (including crowd sourcing plans)    | Discussion led by Ann Thresher and Steve Digges | 20 min          |
| 12.30 – 13.00                                   | Group photo (outside if weather permits)  |   | 30 min          |
| <b>13.00 – 14.00</b>                            | <b>Lunch</b>  |   | <b>60 min</b>   |
| Chair: Catia Domingues / Notetaker: Steve Diggs |   |   |                 |
| 14.00 – 14.20                                   | <u>Quality control and duplicates removal for the Marine and Meteorological data from NMDIS/China</u>                                   | Liu Yulong                                      | 15 min + 5 min  |
| 14.20 – 14.50                                   | <u>Introduction of JODC Historical XBT profile recovery and rescue project in Japan</u>   | Takeharu Miyake<br>Toru Suzuki                  | 20 min + 10 min |
| 14.50 – 15.10                                   | <u>Present trends in IOC/IODE</u>   | Prof Yutaka Michida                             | 15 min + 5 min  |
| 15.10 – 15.30                                   | <u>On the use of climatological convex hulls for detecting outliers and quality control of oceanographic data sets</u>                  | Uday Bhaskar                                    | 15 min + 5 min  |
| <b>15.30 – 16.00</b>                            | <b>Coffee break</b>   |   | <b>30 min</b>   |
| 16.00 – 16.20                                   | <u>Progress on the auto QC benchmarking</u>   | Simon Good                                      | 15 min + 5 min  |
| 16.20 – 17.30                                   | Drafting a roadmap for development & implementation of <b>auto QC</b> into IQuOD dataset versions                                       | Discussion led by Simon Good                    | 70 min          |
| 19.30 –   | Workshop dinner: Gonpachi Nishi-Azabu ( <a href="http://www.gonpachi.jp/nishiazabu/">http://www.gonpachi.jp/nishiazabu/</a> ). No dress | MIRC and JODC                                   |                 |

code required.

## WEDNESDAY – 5<sup>TH</sup> OCTOBER

| Chair: Janet Sprintall / Notetaker: Bec Cowley |   |   |                     |
|--|---|---|---------------------|
| 9.00 – 9.20                                    | <u>GOOS update and IQuOD in the context of Framework for Ocean Observing (FOO)</u>  | Toshio Suga                               | 15 min + 5 min      |
| 9.20 – 9.40                                    | Review of action items + updates  | Bec Cowley                                | 20 min              |
| 9.40 – 10.40                                   | Review of task teams (objectives, members/roles, resources needed, workflow/timeline, interactions/dependency on other task teams, regular communication)   | Task team leaders                         | 5 x 15 min = 60 min |
| <b>10.40 – 11.00</b>                           | <b>Coffee break</b>   |   | <b>20 min</b>       |
| 11.00 – 12.00                                  | <u>Other communication/Wrap up</u> <ul style="list-style-type: none"><li>● A real way forward</li><li>● Website documentation and functionality</li><li>● CLIVAR scientific and implementation plan</li><li>● A potential funding avenue: <a href="http://www.arc.gov.au/linkage-programme">http://www.arc.gov.au/linkage-programme</a></li><li>● Suggestion for the 2017 IQuOD/XBT workshops: South Africa in conjunction with IAPSO-IAMAS-IAGS assembly and prior to SCOR meeting (4-6 Sept, Cape Town)</li></ul> | Steve Diggs, Catia Domingues, Matt Palmer | 30 min              |
| <b>12.00 – 14.00</b>                           | <b>Lunch – XBT science workshop starts @ 2 pm</b>   |   | <b>60 min</b>       |

## Remote participation

Please contact Shoichi Kizu

Webex test: Tuesday 4th October, 7.45-8.45 am

## Group photo

If not possible to take group photo in conference rooms A+B, suggestion is to walk to Hibiya Park, located just north of the venue building (subject to weather conditions). Tentative: Tuesday or Wednesday before lunchtime.

## Workshop dinner

Marine Information Research Center and Japan Oceanographic Data Center would like to invite you to welcome dinner at 7:30 pm on Tuesday, 4th October 2016 at Japanese pub restaurant "Gonpachi Nishi-Azabu" (<http://www.gonpachi.jp/nishiazabu/>). No dress code required.

## Site Facilities

WebEX, PA, Projector, Screen, Pointer, Outlet(Plug Type A, 100V/50Hz), Guest Wi-Fi (no charge), eduroam Wi-Fi

## Power/plug information

People who are not familiar with Japanese power sockets and voltage are recommended to learn about them before coming, for example, at

- <http://www.japan-guide.com/e/e2225.html>
- <http://www.worldstandards.eu/electricity/plugs-and-sockets/>
- [https://en.wikipedia.org/wiki/AC\\_power\\_plugs\\_and\\_sockets#JIS\\_C\\_8303.2C\\_Class\\_II\\_unearthed](https://en.wikipedia.org/wiki/AC_power_plugs_and_sockets#JIS_C_8303.2C_Class_II_unearthed)

The most popularly-seen type of sockets in Japan is so-called "Type A", but they are occasionally designed for non-polarized plugs (i.e. equally-sized two plates) and/or are often strict in size. So, polarized plugs may not fit.

There are electronics retail stores in Ginza/Shimbashi area where you may be able to find adapters, but not guaranteed.



## List of Participants (as of 30 September 2016)

### [LINK](#)

\* means remote participation

\*\* means reception only

|    | Last Name     | First Name | Organizational Affiliation                                | Country   |
|----|---------------|------------|---|-----------|
| 1  | Baba**        | Norio      | Japan Oceanographic Data Center                           | Japan     |
| 2  | Bandow        | Hiroshi    | Assoc. of Int'l Research Initiatives for Environ. Studies | Japan     |
| 3  | Barma         | Andrew     | Scripps Institution of Oceanography                       | USA       |
| 4  | Baringer      | Molly      | NOAA/AOML   | USA       |
| 5  | Boyer         | Tim        | NOAA/NCEI   | USA       |
| 6  | Bringas       | Francis    | NOAA/AOML   | USA       |
| 7  | Carval        | Thierry    | IFREMER   | France    |
| 8  | Castelao*     | Guilherme  | Scripps Institution of Oceanography                       | USA       |
| 9  | Cheng         | Lijing     | IAP/CAS   | China     |
| 10 | Cirano        | Mauro      | REMO/UFRJ   | Brazil    |
| 11 | Coatanoan     | Christine  | IFREMER   | France    |
| 12 | Cowley        | Rebecca    | CSIRO   | Australia |
| 13 | Diggs         | Steve      | Scripps Institution of Oceanography                       | USA       |
| 14 | Domingues     | Catia M.   | IMAS - ACE CRC, University of Tasmania                    | Australia |
| 15 | Dong          | Shenfu     | NOAA/AOML   | USA       |
| 16 | Durak*        | Paul       | Lawrence Livermore National Laboratory                    | USA       |
| 17 | Good*         | Simon      | Met Office  | UK        |
| 18 | Guideri*      | Matteo     | Italian Hydrographic Institute, Italian Navy              | Italy     |
| 19 | Goes          | Marlos     | University of Miami/CIMAS and NOAA/AOML                   | USA       |
| 20 | Goni          | Gustavo    | NOAA/AOML   | USA       |
| 21 | Gopalakrishna | Visa       | National Institute of Oceanography                        | India     |
| 22 | Gouretski     | Viktor     | University of Hamburg                                     | Germany   |
| 23 | Hanawa        | Kimio      | Tohoku University   | Japan     |
| 24 | Hase          | Hideaki    | JAMSTEC   | Japan     |
| 25 | Hidas         | Marty      | Integrated Marine Observing System, UTAS                  | Australia |

|    |               |             |  |           |
|----|---------------|-------------|--|-----------|
| 26 | Idai          | Toru        | Marine Works Japan, LTD                      | Japan     |
| 27 | Ishii         | Masayoshi   | MRI/JMA                                      | Japan     |
| 28 | Killick       | Rachel      | Met Office                                   | UK        |
| 29 | Kizu          | Shoichi     | Tohoku University                            | Japan     |
| 30 | Liu           | Yulong      | NMDIS  | China     |
| 31 | Macdonald     | Alison      | WHOI   | USA       |
| 32 | Michida       | Yutaka      | University of Tokyo                          | Japan     |
| 33 | Miyake        | Takeharu    | Japan Oceanographic Data Center              | Japan     |
| 34 | Muneda        | Kouji       | Japan Oceanographic Data Center              | Japan     |
| 35 | Nakano        | Toshiya     | JMA  | Japan     |
| 36 | Palmer*       | Matt        | Met Office                                   | UK        |
| 37 | Repetti*      | Luca        | Italian Hydrographic Institute, Italian Navy | Italy     |
| 38 | Reseghetti*   | Franco      | ENEA - Italian National Agency for New Tech. | Italy     |
| 39 | Rossby        | Thomas      | University of Rhode Island                   | USA       |
| 40 | Sato          | Kanako      | JAMSTEC                                      | Japan     |
| 41 | Sprintall     | Janet       | Scripps Institution of Oceanography          | USA       |
| 42 | Suga          | Toshio      | Tohoku University/JAMSTEC                    | Japan     |
| 43 | Suzuki        | Toru        | Marine Information Research Center           | Japan     |
| 44 | Thresher      | Ann G.      | CSIRO  | Australia |
| 45 | Udaya Bhaskar | TVS         | INCOIS / MoES                                | India     |
| 46 | Yabuki**      | Tetsuichiro | Japan Oceanographic Data Center              | Japan     |