

## Agenda OPST-12

Wed, 15 April - Day 1

|               |  | Length in min |
|---------------|--|---------------|
| 8:30 - 9:00   | <b>Registration</b>  | 30            |
| 9:00 - 9:10   | <b>Introduction (welcome, housekeeping, events) Greg or Kirsten</b>  | 10            |
| 9:10 - 9:20   | Invited local host talk, land claim acknowledgement - <b>TBC</b>   | 10            |
| 9:20 - 9:50   | <b>New TT chairs intro 3-5 min each</b><br>Rachel Furner - AI-TT (ECMWF)<br>Anass El Aouni - AI-TT (MOI)<br>Chunxue Yang - IV-TT (CNR)<br>Stefania Ciliberti - IV-TT (NowSystems) ( <i>remote</i> )<br>Marcin Chrust - DA-TT (ECMWF) ( <i>remote</i> )<br>Anthony Weaver - DA-TT (CERFACS) ( <i>remote</i> ) | 30            |
| 9:50 - 10:05  | <b>OP overview and meeting objectives</b> - Greg Smith (ECCC) & Marie Drevillon (MOI)  | 15            |
|               | <b>News and developments - setting the stage</b>   |               |
| 10:05 - 10:15 | <b>OP-DCC and UN decade</b> - Enrique Alvarez (MOI)  | 10            |
| 10:15 - 10:25 | <b>ForeSea progress</b> - Eric Chassignet (FSU)  | 10            |
| 10:25 - 10:35 | <b>Discussion</b>  | 10            |
| 10:35 - 11:00 | <b>Tea/coffee</b>  | 35            |
| 11:00 - 11:10 | <b>In-situ observations (Argo, GOOS,..)</b> - Pierre-Yves Le Traon (MOI)   | 10            |
| 11:10 - 11:20 | <b>Satellite obs (new missions, etc.)</b> - Pierre-Yves Le Traon (MOI)   | 10            |
| 11:20 - 11:30 | <b>AI transformation</b> - Rachel Furner (ECMWF) & Anass El Aouni (MOI)  | 10            |
| 11:30 - 11:40 | <b>HPC developments (GPUs, differential modelling)</b> - Kristian Mogensen (ECMWF)   | 10            |
| 11:40 - 11:50 | <b>Digital Twins (DITTO)</b> - Joanna Staneva (Hereon)   | 10            |
| 11:50 - 12:10 | <b>Discussion</b>  | 20            |
|               | <b>WMO collaborations 30 min</b>   |               |
| 12:10 - 12:20 | <b>JCB</b> - Fraser Davidson (ECCC)  | 10            |
| 12:20 - 12:40 | <b>(JWGFVR) Joint Working Group on Forecast Verification Research and related WMO activities</b> - Barbara Casati (ECCC)   | 20            |
| 12:40 - 12:50 | <b>Discussion</b>  | 10            |
| 12:50 - 14:00 | <b>Lunch</b>   | 70            |

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|---------------|--|------------|
|               | <b>Task team and WG sessions - visions and plans for the next 5 years</b>  |            |
| 14:00 - 14:20 | <b>OPOS-WG</b> - David Ford, Met Office & Fraser Davdson, ECCC   | 20         |
| 14:20 - 15:35 | <b>Covers 5 presentations [System presentations (short - 10+5 min)]</b><br><b>UK</b> - David Ford (Met Office) - 14:20 - 14:35<br><b>France</b> - Yann Drillet (MOI) - 14:35 -14:50<br><b>Korea</b> - Jae-Li Kwon (KIOST) - 14:50 - 15:05<br><b>Australia</b> - Mikhail Entel (BoM) - 15:05 - 15:20<br><b>Japan</b> - Yosuke Fujii (MRI-JMA) - 15:20 - 15:35 | 75         |
| 15:35 - 16:00 | <b>Tea/coffee</b>  | 30         |
| 16:00 - 16:45 | <b>Covers 3 presentations (10+5 min) + 1 slot (30 min) to cover one slide presentations of absent systems</b><br><b>USA</b> - Alex Kurapov (NOAA) - 16:00 - 16:15<br><b>Canada</b> - Greg Smith (ECCC) - 16:15 - 16:30<br><b>Europe</b> - Kristian Mogensen (ECMWF) - 16:30 - 16:45  | 45         |
| 16:45 - 17:30 | <b>Discussion</b>  | 15         |
| 17:30         | <b>Close of meeting</b>  |            |
| from 19:00    | <b>Dinner in Montreal - Mauvais Garçons</b>  |            |
|               |  | <b>495</b> |

## Thu, 16 April - Day 2

|               |   |    |
|---------------|---|----|
| 8:45 - 8:50   | <b>Intro, housekeeping</b>  | 5  |
|               | <b>Task team and WG sessions - visions and plans for the next 5 years - (15+10 min)</b> |    |
| 8:50 - 9:15   | <b>IV-TT</b> - Chunxue Yang (CNR)   | 25 |
| 9:15 - 9:40   | <b>COSS-TT</b> - Alex Kurapov (NOAA) & Joanna Staneva (Hereon)                          | 25 |
| 9:40 - 10:05  | <b>MEAP-TT</b> - Stefano Ciavatta (MOI)   | 25 |
| 10:05 -10:10  | <b>Discussion</b>   | 5  |
| 10:10 - 10:40 | <b>Tea/coffee</b>   | 30 |
| 10:40 - 11:05 | <b>DA-TT</b> - Sergey Frolov (Met.no) - <i>remote</i>                                   | 25 |
| 11:05 -11:30  | <b>OSEval-TT/ SynObs</b> - Yosuke Fujii (MRI/JMA) & Elisabeth Remy (MOI)                | 25 |
| 11:30 - 11:35 | <b>Discussion</b>   | 5  |
| 11:35 - 12:00 | <b>CP-TT</b> - Kristian Mogensen (ECMWF)  | 25 |
| 12:00 -12:25  | <b>AI-TT</b> - Rachel Furner (ECMWF) & Anass El Aouni (MOI)                             | 25 |
| 12:25 - 12:30 | <b>Dicussion</b>  | 5  |
| 12:30 - 13:45 | <b>Lunch</b>  | 75 |
| 13:45 - 14:00 | <b>Bus prep</b>   | 15 |

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|---------------|---|-----|
| 14:00 - 15:00 | <b>Bus leaves for trip to Sugar Shack, leave at 14:00</b> | 60  |
| 15:00- 15:10  | <b>Group Photo</b>  | 10  |
| 15:10 - 17:30 | <b>Breakout discussions at Sugar Shack</b>                | 120 |
| 17:30 - 18:30 | <b>Free time , exploring the sugar shack</b>              |     |
| from 18:30    | <b>Dinner at Sugar Shack</b>                              |     |
| from 20:30    | <b>Return to hotel</b>                                    | 500 |

## Fri, 17 April - Day 3

|             |   |    |
|-------------|---|----|
| 8:55 - 9:00 | <b>Intro, housekeeping</b>  | 5  |
|             | <b>5-year plan discussions - 10 min per objectives: 3 min breakout summaries &amp; 7 min discussion</b>   |    |
| 9:00 -9:50  | <p><b>A. Building the ocean prediction capacity of the future (5 obj)</b></p> <p>1. Data assimilation: Improving ocean data assimilation capacity - <b>Greg Smih (ECCC)</b></p> <p>2. Verification: Research to improve monitoring for ocean prediction accuracy and utility by developing a common framework by which operational centres can participate in regular system inter-comparisons and verifications - <b>Fabrice Hernandez (IRD) and Chunxue Yang (CNR)</b></p> <p>3. Observing system evaluations: Contributing to projects and assessment to better design observing systems and assess the observation impact on prediction -<b>Yosuke Fujii (MRI-JMA)</b></p> <p>4. Models: Collaborating with various science R&amp;D groups through OceanPredict task teams to improve ocean prediction - <b>Alex Kurapov (NOAA) &amp; Stefano Ciavatta (MOI)</b></p> <p>5. Visualisation: Collaborating with ocean product developer and ocean services to improve - <b>Yann Drillet (MOI)</b></p>  | 50 |
| 9:50- 10:30 | <p><b>B. Strengthening engagement with the international ocean science community (4 obj)</b></p> <p>6. Value-chain: Nurturing sustained productive dialogues with global and regional in-situ and satellite observing system agencies, coordinating R&amp;D efforts with intermediate value-chain users and contributors such as coastal and biogeochemical prediction systems, and building close relationships with science partners and user groups to create a framework of operational oceanography. - <b>Fraser Davidson (ECCC)</b></p> <p>7. Operationality: Supporting the transition from research and development to operations of prediction system improvements by reporting relevant scientific developments to ETOOFS and the OceanPredict systems. - <b>David Ford (Met Office)</b></p> <p>8. International collaborations: Actively contributing to the UN Decade of Ocean Science goals for Sustainable Development. - <b>Jae-Il Kwon (KIOST)</b></p> <p>9. Downstream: Promoting access to data and information products and enhanced uptake of ocean analysis and forecasting products with governments, the public and private sector. - <b>Joanna Staneva (Hereon)</b></p> | 40 |

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|---------------|---|----|
| 10:30 - 11:00 | <b>Tea/coffee</b>   | 30 |
| 11:00 - 11:40 | <p><b>C. Co-design and co-develop ocean prediction and ocean observing systems (4 obj)</b></p> <p>10. Partnerships: Develop strong partnership with observation and NWP agencies with the objective to co-design/co-develop ocean observing and prediction systems - <b>Pierre-Yves Le Traon (MOI)</b></p> <p>11. Monitoring and assessments: Set up and improve monitoring systems for assessing the impact of observations and sharing results with associated partners. Increase use of these systems by operational centres. - <b>Andy Moore (UCSC)</b></p> <p>12. New observations: Engage key-observing and key-end-user-focussed partners to evaluate and communicate impact of new ocean observing systems - <b>Elisabeth Remy (MOI)</b></p> <p>13. Improving observation and prediction systems: Fostering and coordinating the development of emerging areas and new ocean monitoring, modelling and assimilation components to improve ocean forecasting and observing systems for both operational implementation and research (including physical, biogeochemical, and biological/ecological observations) - <b>Rachel Furner (ECMWF) &amp; Anass El Aouni (MOI)</b></p>   | 40 |
| 11:40 - 12:20 | <p><b>D. Increasing societal impact of ocean prediction (4 obj)</b></p> <p>14. Routine impact assessments for user benefit: Conducting routine impact analysis for various aspects of ocean observing systems on improving end user experience, as well as impact on other environmental prediction components - <b>Kristian Mogensen (ECMWF)</b></p> <p>15. New capabilities: Enhancing research value and utility for operational prediction centres through targeted collective multi-disciplinary projects on new capabilities for operational oceanography in cooperation with other relevant international research programmes, including adopting machine learning/AI where appropriate and beneficial. - <b>Marie Drevillon (MOI)</b></p> <p>16. Outreach - learning: Promote an increase in understanding and uptake of ocean prediction science and products by promoting knowledge and sharing of information equitably around the world. This will be achieved through organising and preparing symposia, summer schools, training workshops, online training and ocean literacy material, as well special publications. The goal is to nurture a growing community of scientists, students and public in general, on operational oceanography covering ocean observations, ocean prediction science, operational prediction systems, products, end use tools, downstream services and societal benefits. - <b>Kirsten Wilmer-Becker (Met Office)</b></p> <p>17. Outreach – supporting new operational system utility: Collaborate with upcoming prediction systems to support the transition from research to operations and facilitate end use - <b>Jae-Il Kwon (KIOST)</b></p> | 40 |
| 12:20 - 12:30 | Wrap up discussion - 5 -year plan   | 10 |
| 12:30 - 14:00 | <b>Lunch</b>  | 90 |
| 14:00 - 14:30 | <b>OceanPredict general overview and Events - Kirsten Wilmer-Becker (Met Office)</b>  | 30 |

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|---------------|---|----|
| 14:30 - 15:00 | <b>Summary discussion and Wrap up - Marie Drevillon (MOI) and Greg Smith (ECCC)</b> | 30 |
| <b>15:00</b>  | <b>Close</b>  |    |

**360**