Joint SCOR/IAPWS/IAPSO Committee on the Properties of Seawater (JCS)

Report to SCOR and IAPSO on JCS Activities July 2014-June 2015

Membership

**Executive**
- Rich Pawlowicz (Chair)  
  Canada
- Rainer Feistel Vice-chair  
  Germany
- Trevor J. McDougall (Vice-chair)  
  Australia

**Salinity/Density Subgroup**
- Frank J. Millero  
  USA
- (Rich Pawlowicz)  
  Canada
- Steffen Seitz  
  Germany
- Hiroshi Uchida  
  Japan
- Stefan Weinreben  
  Germany
- Youngchao Pang  
  China
- **Henning Wolf**  
  Germany < Proposed

**pH Subgroup**
- Maria Filomena Camoes  
  Portugal
- Andrew Dickson  
  USA
- **Daniela Stoica**  
  France < Proposed

**Relative Humidity Subgroup**
- Olaf Hellmuth  
  Germany
- Jeremy Lovell-Smith  
  New Zealand

**Thermodynamics**
- (Rainer Feistel)

**Numerical Modelling and Applications**
- (Trevor J. McDougall)

**Software**
- Paul Barker  
  Australia

**Industry Representatives**
- Paul Ridout (OSIL)  
  UK
- Barbara Laky (Anton Paar)  
  Austria

NB: Former member Petra Spitzer has retired.
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Meetings

JCS did not meet as a full group in 2014-15. However, 7 JCS members did attend the 2015 IAPWS Annual Meeting in Stockholm, Sweden, including Y. Pang (and two of his colleagues). Detailed updates were provided on “other progress” items listed below, and on the JCS tasks agreed on at the Salinity and pH workshops held during the 2013 International Conference on the Properties of Water and Steam (Greenwich, UK). Significant progress was also made on some of these tasks during discussions in the IAPWS Subcommittee on Seawater workshop at this meeting and in a separate (closed) JCS meeting.

RF attended the 4th JCOMM Marine Instrument Workshop for ASIA-PACIFIC, Weihai, China, 21-23 Oct. 2014 as a JCS representative, at the invitation of the GOOS Project Office (IOC/UNESCO). RF provided information on TEOS-10 to this group.

Web site

JCS maintains a web site at www.teos-10.org. This site gets 1500-2000 visitors per month with 34136 “unique views” since Oct 2010. Annual downloads in the past year are increasing over past years.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
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<tbody>
<tr>
<td>Manual</td>
<td>920</td>
<td>360</td>
<td>535</td>
</tr>
<tr>
<td>Getting Started</td>
<td>879</td>
<td>362</td>
<td>558</td>
</tr>
<tr>
<td>Slides</td>
<td>704</td>
<td>284</td>
<td>374</td>
</tr>
<tr>
<td>Primer</td>
<td>584</td>
<td>197</td>
<td>289</td>
</tr>
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<tr>
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<td>118</td>
<td>58</td>
</tr>
</tbody>
</table>

Other Progress

1. TM is working with several modelling groups (MOM, NEMO) to add TEOS-10 support.
2. RP/FM carried out density anomaly measurements in N. Pacific (Line-P program, Feb 2014).
3. RP/HU carried out density anomaly measurements in N. Pacific (Salish Sea, Oct 2014).
4. HU carried out density anomaly measurements in N. Pacific (WHP P01) and Arctic (Mirai MR14-05).
5. HU, FM, HW are continuing measurements of density in SSW batches; this information will be collated in a planned publication.
6. MFC working towards a Pitzer equation for seawater pH.
7. HW, HU, SW, RP are still writing the ‘Best Practices Guide for seawater Density Measurements’ (now at version 13).
8. SS is still investigating instrument effects on conductance measurements.
9. RF is working on uncertainty budgets for correlation equations.
10. TM, PB released version 3.05 of GSW software.
11. AD continues to provide seawater buffers for pH, and is also a member for SCOR WG147 on speciation (discussing a seawater Pitzer model).

Papers published


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Papers Submitted:


R. Pawlowicz

JCS chair, Aug 1, 2015