SOLAS main capacity building activity:

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What is the SOLAS summer school?

- Training activity for PhD/post-doc level students
- With the goal to expose young scientists to recent developments and methodologies in the study of biogeochemical and physical feedbacks between the ocean and atmosphere in a changing environment
Format

• School over 2 weeks

• Mixture of
  1) lectures,
  2) practical sessions
  3) students contributions
• **Lectures:**
Total of 28 lectures of 1h15 each
1st week lectures on basics SOLAS topics
2nd week lectures on more advance SOLAS topics

• **Students contributions:**
Poster presentations during poster sessions of the 1st week and work on the posters during one of the practical session
4-minute oral presentation during the 2nd week.

SCOR Meeting on Capacity Building for Ocean Science, 16-18 Aug 10, Bremen, Germany
• **Practical sessions:**

Each session lasts ½ day

- **Oral and written communication**
- Modelling workshop
- Gas exchange
- Atmospheric chemistry
- Laboratory work
- Research cruise
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Arrival

Lectures

Practicals

Rest Day

Lectures

Departure

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  - Modelling workshop
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SCOR Meeting on Capacity Building for Ocean Science, 16-18 Aug 10, Bremen, Germany
Logistics

• Institut d’Etudes Scientifiques de Cargese, Corsica, France

• 70-75 students from 20-25 nations

• 15 leading SOLAS scientists

• Budget of 165k Euros, with a very complex finance system attached to it.

Many thanks to all the schools sponsors for individual students and lecturers (*53 sponsors for the 2009 school! *only few logos below of sponsors which supported all the schools)
4 SOLAS summer schools in 6 years...
Some statistics on applications

<table>
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<th>2005</th>
<th>2007</th>
<th>2009</th>
<th>Overall</th>
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<tr>
<td>Total Applications</td>
<td>210</td>
<td>237</td>
<td>178</td>
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<td>Developing Countries</td>
<td>73</td>
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<td>Developed Countries</td>
<td>137</td>
<td>147</td>
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<tr>
<td>Total Countries</td>
<td>39</td>
<td>48</td>
<td>43</td>
<td>68</td>
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</tbody>
</table>

Developed

Developing

USA

Canada

UK

Spain

Germany

Australasia

South/Latin America

India

Japan

Rest of Asia

P. R. China

Rest of Europe

0%

2005

2007

2009

Year of Summer School

Developed

Developing

Applications (%)
Some statistics on participants

<table>
<thead>
<tr>
<th>Year of Summer School</th>
<th>2003</th>
<th>2005</th>
<th>2007</th>
<th>2009</th>
<th>Overall</th>
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<tbody>
<tr>
<td>All Participants</td>
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<td>71</td>
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<td>72</td>
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<td>10</td>
<td>18</td>
<td>20</td>
<td>53</td>
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<td>Developed Countries</td>
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<td>61</td>
<td>50</td>
<td>52</td>
<td>230</td>
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<tr>
<td>Total Countries</td>
<td>17</td>
<td>16</td>
<td>19</td>
<td>25</td>
<td>37</td>
</tr>
</tbody>
</table>

Participants (\%)

Year: 2003 2005 2007 2009

Developed

Developing

North America

Western Europe

South/Latin America

Asia

Eastern Europe

Australasia

Africa

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SOLAS Summer School 2009

The 2009 SOLAS Summer School was held from 3 to 14 August, once again at the Institut d'Etudes Scientifiques de Cargèse, on theWest coast of the French “Bé de Beauté,” (Island of Beauty),
Recommended by the SOLAS International Expert Panel
and coordinated by Yvonand Germain. The school welcomed
71 PhD students and early career scientists from 24 countries
from a wide range of scientific backgrounds, covering all of
the SOLAS topics. The Summer School offers young researchers
the opportunity to expand their knowledge of all aspects of
SOLAS science and to create and strengthen future
collaborations with SOLAS scientists from around the
world.

As well as attending lectures, the students took part in hands-on
practicals where they were introduced to techniques used in
atmospheric, chemistry, modelling, gas exchange, nutrient
assimilation, and ocean acidification. Science communication
workshops gave the students guidance and constructive criticism
on presenting their research via posters, manuscripts and oral
presentations. The students then had the opportunity to present
their improved work to the rest of the school.

Evenings provided students with the opportunity to get to know
each other better and to mix with the lecturers, over dinner
and drinks in the town of Cargèse. Several made the most of
the day off to explore the coastal walks on a day cruise or to go
trekking in the surrounding hills. Feedback from the students
was extremely positive, as the students felt they had gained both
knowledge and future collaborative opportunities while having
an enjoyable time in beautiful surroundings.

The lectures covered a range of SOLAS topics, including
an introduction to SOLAS (Doug Wallace); the carbon,
iron and OMS cycles (Laurent Boyer, Phil Boyd and Peter
Lipt); greenhouse gases, climate change and variability
(Laurent Boyer and Isabelle Arzogel); atmospheres;
physics, chemistry and dust sources (Ul Piot and Andy
Rodgery); seawater gas exchange (Phil Nightingale);
biogeochemical modeling and changes (Cristine Le Quere
and Andy Rodgery), remote sensing and time-series
observations (Mike Behrensfeild; Eric Saltman
and Phil Boyd); marine biological, nanoplankton;
macroplankton (Carlos Moks, Eric Saltman
and Phil Boyd); and processes in the coastal
zone (M. John Dele.
Special sessions covered topical science issues,
such as the PCC process (Cristine Le Quere)
and key feedbacks in the climate system
(Thomas Schneider). Other sessions were aimed
at teaching the students about more practical
issues such as communicating with the press
(Phil Boyd) and ethics in science (Doug Wallace).

SCOR Meeting on Capacity Building for Ocean Science, 16-18 Aug 10, Bremen, Germany
• This volume is an outgrowth of the SOLAS Summer School. The volume is designed to provide graduate students, postdoctoral fellows, and researchers from a wide range of academic backgrounds with a basis for understanding the nature of ocean-atmosphere interactions and the current research issues in this area.

• List $124.00 | Member $87.00
• TO ORDER VISIT
  http://www.agu.org/pubs/books/

• Plan are underway to ship books to developing countries institutes’ libraries
On the way to the 2011 school...the 5th

• Format slightly modified
• On line application
• Earlier opening of appl. and appl. deadline
Lessons learnt and tips...

• Pleasant place, relatively easy to access

• Nice lecturers, with good teaching abilities, good communicators

• Continuity - 283 students

• Funding is every school a challenge

• Future – trying to build a feeling of ‘belonging’ to the air-sea exchange network
The 2009 school lecturers...

Véronique Garçon:
School coordinator

supported by the Sc. Org. Cmt. and the IPO