

ISSI Working group on “Contemporary regional and global sea level rise: assessment of climate models against observations”

Draft of the Agenda of the Second meeting, 24th.-27th of November 2015, venue: ISSI, Bern

Attendees:

C.Agosta, J.Church, S.Ligtenberg, B.Meyssignac, K.Richter, A.Slangen, N.Champollion and M.Palmer, C.Roberts, B.Marzeion through Skype

Location: Hallerstrasse 6 3012 Bern. Check on <http://www.issibern.ch/localguide/location.html> for the location of the hotel and the venue to the ISSI building

Comment: The main objective of this meeting is to design the paper on the comparison of climate models with observations of sea level rise. The detailed objectives of the meeting are the following:

- Present the progress status of the project
- Update on available inputs for the comparison paper
- Agree on the main sections and the main diagrams of the comparison paper
- Agree on the agenda for the publication of the comparison paper
- Propose a layout for the second paper

Please feel also free to make any comments or modifications.

Day 1: 24.11

13:30 - 14:00: Welcome and status of the ISSI project (B. Meyssignac)

1. Objectives of this meeting
2. CCI Initiative
3. J.Gregory Initiative
4. Update of the Agenda and recall of available online resources

14:00 - 14:45: Status of the Glaciers mass loss estimates over the 20th century.

1. Comparison of glaciers mass loss from Aimée’s model and Ben’s model, should we keep Aimée’s estimates? (Aimée, [Ben by Skype])
2. Models forced with atmospheric reanalysis and comparison with observations ([Ben by Skype], Aimée)
3. How do we separate glaciers and small ice caps? (B. Meyssignac, [Ben by Skype]...)

14:45 - 15:30: Status of ocean heat content estimates over the 20th century

1. Which correction should we use to take into account CMIP5 models without volcanic activity in their control run? (*B. Meyssignac, ...*)
2. What should we do concerning the regional drift of models (*B. Meyssignac; ...*)
3. Steric sea level in GCM in comparison with observations (global mean and regional pattern) (*B. Meyssignac, ...*)
4. Can we get Catia regional thermosteric sea level?
5. What should we use as uncertainty estimates?

15:30 - 16:15: Status of Greenland surface mass balance estimates over the 20th century

1. Results from the downscaling (*B. Meyssignac, ...*)
2. Global mean & regional patterns from MAR results [Aimée]

16:15 - 16:45: Coffee break

16:45 - 18:00: Final remarks of day one, Discussion on coming papers

DAY 2: 25.11

09:00 - 09:40: Status of Antarctica surface mass balance estimates over the 20th century

1. Global mean & regional patterns from MAR results [Aimée]
2. First estimate with CMIP5 and status of MAR runs [Cécile]

09:40 - 10:20: Status of Ice sheets dynamics estimates over the 20th century

10:20 – 11:00: Status of other estimates over the 20th century

1. land water estimates: Global mean & regional patterns [Aimée]
2. pressure loading estimates [*B. Meyssignac, Aimée*]
3. GIA estimates [*B. Meyssignac, ...*]

11:00 – 11:20: Coffee break

11:20 – 12:30: Status of Sea level observations for comparison with GCMs

1. Satellite altimetry with error estimates [*B. Meyssignac, ...*]
2. Tide gauge dataset with error estimates
3. Reconstructed sea level with error estimates [*B. Meyssignac, ...*]

12:30 – 14:00: Lunch break

14:00 – 16:00: First attempt to reconstruct sea level from GCM over the 20th century and comparison with observations

1. Global mean models (9 models) vs. global mean reconstructions [Aimée]
2. Example with a few models [*B. Meyssignac, ...*]

3. Comparison with tide gauge records (Do climate models reproduce the mean and spread of tide gauge sea level rise estimates?) [*B. Meyssignac, Aimée*]
4. Which tide gauge records should be selected? (problem of accuracy with several tide gauge records) [Aimée/John]
5. Which time scales and spatial scales should be analysed? (forced response vs internal variability) [*B. Meyssignac, ...*]

16:00 – 16:30: Coffee break

16:30 -18:00: Final remarks of day 2, Discussion on coming papers

19:30: Dinner at the Restaurant “Le Mazot” Bärenpl. 5, 3011 Bern, Switzerland

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DAY 3: 26.11.

09:00 – 11:00: Design of the first paper on comparison of sea level from GCMs with observations

1. Agree on the main sections of the paper
2. Agree on the main diagrams of the paper
3. Propose a first outline of the paper

11:00 – 11:20: Coffee break

11:20 – 12:30: What should be the next step for the ISSI group

1. Orientations for the second paper to follow up
2. Focus on regions?
3. Identify sub-ensemble of CMIP5 models consistent with observations of sea level contributors over the 20th century and build on this for future sea level studies?
4. What about CMIP6?

12:30 – 14:00: Lunch break

14:30 – 15:30: CCI initiative [*B. Meyssignac*]

15:30 – 16:00: Coffee break

16:00 -18:00: Working group activity to start writing the first paper

DAY 4: 27.11

09:00 - 13:00: Working group activity to start writing the first paper

13:00 : End of the meeting