Agenda (Draft 28 May 2013)

MOSAiC Science Plan Writing Workshop

29-30 May 2013, Alfred Wegener Institute, Potsdam, Germany

Day 1: 29 May 2013

9-9:15: Plenary – *Welcome and Introductions*

- Acknowledge hosts and IASC
- Introduction of the team – individual statements (Name, affiliation, research interests, linkages)

9:15-9:45: Plenary – *What is MOSAiC? Overview presentation.*

9:45-10:15: Plenary – *Update on Status and Coordination Activities (Open discussion)*

  - IASC status
  - EU funding possibilities
  - US funding possibilities
  - Others coordination: WWRP/YOPP, CliC, Japanese
  - Infrastructure: Update on PolarStern. Amundsen possibility.

10:15-10:30: Plenary – *General workshop plan and objectives*

- Review of science questions from Boulder meeting (Keep these in mind during the workshop)
- Workshop Objectives (things to think about throughout):
  - Fill in the outline with important details of text
  - Identify sub-groups based on expertise/interest to take lead on different sections
  - Agree on some fundamental aspects of project, such as minimum length of time, general approach (is sea-ice life cycle good?), science question wordsmithing and balance, plan structure – do we need to modify the outline at all?
  - Minimize "implementation" discussions, except where it is integral to the science.
  - Consider prioritization of activities and a Framework for Prioritization.
  - Identify preparatory activities that are needed
- Structure and objective of breakouts.

10:30-11:00: Break

11-13:00: Sub-system Breakouts (3 parallel breakouts, self-selected attendance)

These will be to identify specific needs and objectives within the atmos., sea-ice, and ocean sub-systems (3 parallel breakouts). The intent is to document these in detail. Focus on issues that can be specifically addressed using the MOSAiC concept. Attempt some degree of prioritization based on the level of

uncertainty, extent of impact, difficulty of progress, etc. Cover physical, biological, chemical aspects as appropriate. Some specific questions to address:

- What are the known deficiencies in our knowledge? In particular, what are the specific processes/parameterizations that need to be improved and why? What is the current state of modeling capabilities?
- Who has identified these issues? Are they documented and broadly accepted as important issues? (i.e., IPCC, programmatic documents, papers, etc.)
- How do the specified processes interact with the rest of the system and/or other processes? (Identify linkages and interfaces)
- What are the impacts of this issue on our system-level understanding and modeling abilities?
- What is the pathway for progress? What would progress look like? Are there realistic metrics for progress? (Measurable progress; reduced bias with respect to joint PDFs; etc.)

13-14:00: Lunch Break

14:00-15:30: Sub-System Breakouts (continued)

15:30-16:00: Break

16:00-17:30: Closing Plenary

- Breakout reports from different groups
- General discussion themes. Some possibilities include
    - "Framework for Prioritization"
    - Identifying stakeholders and stakeholder needs. Target audience for the science plan?

18:30: Group Dinner (sponsored by AWI):

- Informal discussion theme: *"Synthesizing our Knowledge: How well do we understand the coupled, central Arctic system? What have we learned and not learned from prior activities?"*

Day 2: 30 May 2013

9:00-10:30: Breakouts – (2 parallel breakouts, self-selected attendance)

- Outlining specific modeling activities:
    - What *preparatory modeling* work is needed?
    - *During field campaign*: project support, assimilation, etc.
    - *Post-field campaign*: synthesis, upscaling, intercomparisons, etc.
    - Linkages with YOPP and other modeling activities.
- Measurement needs:

- Discussion of specific measurements (and specifications) needed to address disciplinary and cross-disciplinary issues.
- Parameters that should be measured over spatial scales (and can be realistically).
- Needs for intensive observation periods and/or coordination with other programs.

10:30-11:00: Break

11:00-13:00: Plenary – Cross-disciplinary

- Discuss cross-disciplinary linkages and how best to consolidate the disciplinary issues identified in Day 1 into broader cross-disciplinary themes organized around our science questions.

13:00-14:00: Lunch Break

14:00-15:30: Plenary – continue Cross-disciplinary (flexible)

15:30-16:00: Break

16:00-17:30: Closing Plenary

- Short breakout summaries
- Finalize writing sub-teams and assignments
- "Building International Partnerships" discussion:
  - Is it reasonable to expect "modular" contributions?
  - Who is expected to support this financially and in what capacity?
  - What existing projects/plans do we need to link with?
  - Roadmap for supporting critical MOSAiC activities.
- Thoughts on implementation planning. When/where to have a meeting?

17:30: End of Workshop; Safe Travels