

Teleconference Agenda
US CLIVAR Working Group
“Large Scale Circulations Associated with Extremes”
Richard Grotjahn and Matt Barlow, Co-Chairs
14 May, 2012

Overview

This is the first teleconference for the working group and is intended to introduce the members of the group, review our goals and deliverables, and begin planning a review paper(s) and workshop. The target length is one hour but we have booked ninety minutes, depending on discussion. For the review paper and workshop, our intent is to introduce the issues we need to consider and start the discussion, with much of the discussion continuing via email over the next month, followed by a summary conversation in the next teleconference in about one month to start finalizing outlines and structure.

Goals

Introductions, review of working group goals and deliverables, begin discussion of review paper(s) and workshop, housekeeping

Key Tasks

1. Begin planning review paper(s)
2. Begin planning workshop

Approximate Schedule

1. Introductions (5 min)

(And thanks for participating!)

2. Overview (5 min)

- Motivation and scope of WG
- Deliverables

3. Feedback and general discussion (10 min)

- Individual comments on scope, deliverables, etc.
- Is it useful to identify/develop/make available common datasets of extremes and model data?

(Say, a gridded dataset of observed extremes, vetted in terms of data quality and definition of extreme and a corresponding dataset of CMIP 5 extremes. This may be a significant effort and may be more of a recommendation for things to be done rather than something to be accomplished by the WG.)

4. Discussion of review paper(s) (15 min)

- Scope and organization. Do we aim for a single paper that focuses on large-scale circulations and covers temperature and precipitation together, or do we go for a more general overview of short-term extremes and split temperature and precipitation?
- Participants (who wants to write which parts)
- Journal target
- Timeline
- Identify action items (who and what)

5. Discussion of workshop (15 min)

- Goals and desired outcomes (possible secondary goals include identifying key timescales based on physical mechanisms and impacts, and contrasting benefits and limitations of different definitions of extremes)
- Sessions and speakers
- Date and location (anyone want to host?)
- Identify action items (who and what)

6. Housekeeping (10 min)

- Frequency of telcons
- First-year meeting, where and when (e.g., with CLIVAR summit, AGU)
- Information sharing (elist, WG webpage, other)
- Webpage content

Some Possible Approaches For Review Paper Extremes WG

Matt Barlow, 14 May 2012 (RG edits)

Notes:

1. These possibilities are intended as a starting point for discussion, not necessarily a preferred direction.
2. Putting together a preliminary bibliography, which has to be done anyway, may help clarify which approach is best.

Key Issues :

- a) focus first on purposes of the paper(s). Related to that...
- b) One or two papers? See below. One paper if there are several overarching, common issues in: i) fundamental similarities to large scale circulations (tropical/midlatitude interaction?; climate indices that create an 'envelope' or bounds on extremes?), ii) similarities in key gaps in our knowledge, and iii) common statistical approaches or other tools.

1. Focused, single paper

topic: large-scale circulations associated with short-term extremes of precipitation and temperature for North America

pros: less literature to cover, more focused, less to do

cons: may end up having to do a general review of extremes as background anyway, may have a more limited audience, may not be enough papers to say much, may steal some thunder from workshop follow-on paper or be hard to write before workshop

2. Two more general review papers

topics: short-term temperature extremes for North America, short-term precipitation extremes for North America

pros: bigger audience, more general topic (makes effort more worthwhile, may be easier to get contributions)

cons: less focused, a lot to cover even for each type (regions, seasons, mechanisms), needs two lead authors, will have a higher bar for review

possible outline for precip paper (similar for temp):

- dynamics and mechanisms (e.g., frontal, hurricanes, MCCs, etc.)
- associated regional and large-scale circulations (intrinsic)
- large-scale influence (synoptic, clim. features, NAO, ENSO, etc.)
- trends, observed and projected
- model realization of extremes
- outstanding questions

Possible Structure for Workshop Extremes WG

Matt Barlow and Richard Grotjahn, 14 May 2012

Notes:

1. These possibilities are intended as a starting point for discussion, not necessarily a preferred direction.
2. We need to move quickly toward having a detailed preliminary plan, with point people for main items, including individual sessions.
3. One of the working group's goals is a follow-on paper from the workshop, so we should keep that closely in mind when developing the workshop

Structure

Location: UCAR space in Boulder

Motivation: no-cost, hopefully allows inviting speakers beyond WG

Size: 30 people (WG + 18 or so)

Motivation: smaller size allows more interaction, will help goal of a follow-on paper

Length: 3 days

Motivation: not an excessive commitment, but would allow several sessions and summary discussions

Time: early June 2013

Motivation: after classes, before most summer vacations

Goals: identify key questions, build researcher community, develop follow-on paper

Objectives:

- identify key knowledge gaps and questions
- assess our current understanding of models' ability to capture the large-scale circulations associated with extremes
- identify key timescales base on physical mechanisms and impacts
- contrast benefits and limitations of different definitions of extremes

Possible Sessions:

- definitions of extremes, advantages and limitations
- physical mechanisms and time-scales
- comparing observed and modeled structure
- statistical vs. dynamical downscaling

Questions:

1. Can anyone host this for no-cost?
2. Should we seek additional funding from other agencies to support more speaker travel, young scientist participation, under-represented groups, etc.?
3. Should it be closed/by invitation or open attendance? *US CLIVAR prefers open.*