

WORLD CLIMATE RESEARCH PROGRAMME: EXTREMES

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PRESENTATION

Briefly ...

- Background
- Update on activities
- Future plans

WCRP STRATEGIC FRAMEWORK ...

To facilitate analysis and prediction of Earth system variability and change for use in an increasing range of practical applications of direct relevance, benefit and value to society

Extreme events is an obvious focal point

MORE from JSC 28 ... 2006

WCRP has a role to provide:

GUIDANCE on what constitutes an extreme event

FRAMEWORK under which observations and projections of climate extremes can be assessed

Goals

- To summarize, compare and assess **definition(s)** of climate extremes and develop a common language amongst researchers and end users.
- To design an **intercomparison framework** through which both observations, model representations of extremes and projections of climate can be assessed and by which changes in climate extremes can be better evaluated.
- To accelerate progress on the **prediction** of climate extremes with a focus on developing capabilities and products which facilitate practical applications for stakeholders in regions around the world.
- To assess and improve the **observational and dataset framework** for study of global extremes
- To determine how extremes are **changing and varying** and why

WCRP Components and Extremes

CLIVAR

indices

sea surface factors

global coupled models

regional studies

...

GEWEX

global products (precipitation or not ...)

precipitation-related events (or not ...)

regional studies

CLiC

cryospheric-related issues

WCRP EXTREMES STATUS

- Issue: Important
- Status: Lots of activities but ...
- Plans: Step-by-step forward

Initial Focus

Drought

Then heavy precipitation, etc. ...

DIG – Drought Interest Group

David Legler

Roberto Mechoso

Siegfried Schubert

Ronald Stewart

Peter van Oevelen

+ many others being added

With assistance from WCRP Office ..

Actions

- Inventory of:
drought-related activities
scientists
- International assessment of drought capabilities:
monitoring
prediction
- Analysis of existing model studies
- As well as:
clarify definitions, trend studies, internal structure
- International drought workshop (2011)

Drought – White Paper

1. Background and Objective

Motivate climate research targeting drought and need for coordination

2. User Drought Prediction Requirements

3. Current Drought Prediction Capabilities

4. Research and Development Needs

5. Recommendations on Research/Development Priorities

SUMMARY

WCRP is developing a research program on extremes with an initial focus on drought

Some activities have been accomplished and more ambitious ones are planned