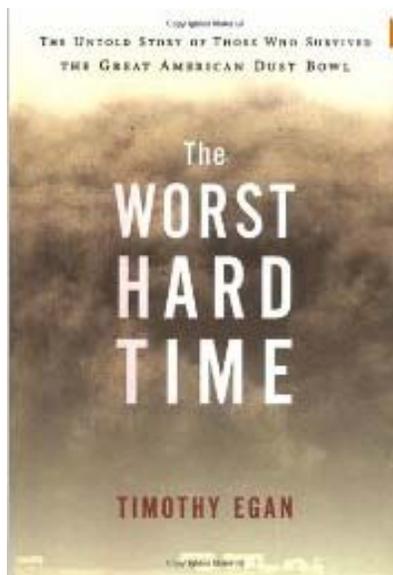


WG2 Inland Systems

Jim Lambert (Chair), Alberto Troccoli (Co-Chair),
Mindi Kiker (Moderator), TBA (Rapporteur)

1



Björnsson
Bowman
Bridges
Hady
Hillel
Jones
Karl
Klein
Lambert
Munoz-Carpena
Palma
Reynisson
Sterin
Troccoli
White
Yumagulova
Zhu
Ogilvie
Jóhannesdóttir
Höskuldsson, Á
Jóhannesson
Nawri

2



WG2 Approach

- What are the vulnerabilities of our inland/terrestrial infrastructure systems
- What are the inland/terrestrial manifestations of climate change
- What future and emergent conditions combine with climate change for inland/terrestrial systems
- What are the success criteria for inland/terrestrial adaptation and mission assurance
- What are inland/terrestrial innovations/alternatives/options/policies for adaptation
- What are gaps in knowledge, models, data, technology, and decisions for inland/terrestrial systems

WG2 Approach (cont.)

- Coordinate recommendations and conference papers related to inland/terrestrial systems:
 - Vulnerabilities
 - Criteria
 - Technology innovations
 - Gaps in models and data
 - Emergent conditions that combine with climate change to bring undesirable results
 - Avoid surprise, regret, belated action
 - Provide capability to adapt and evolve or provide mission assurance for inland/terrestrial systems

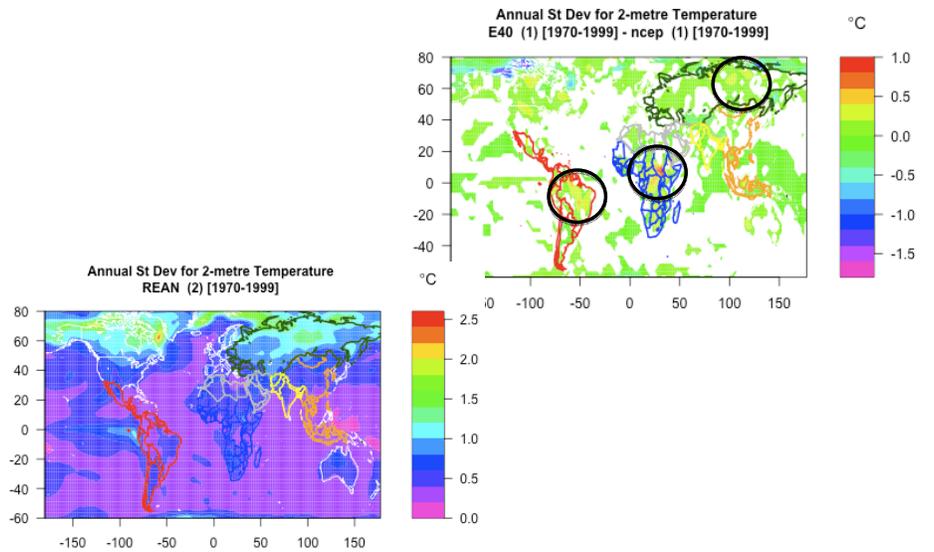
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WG2 Examples

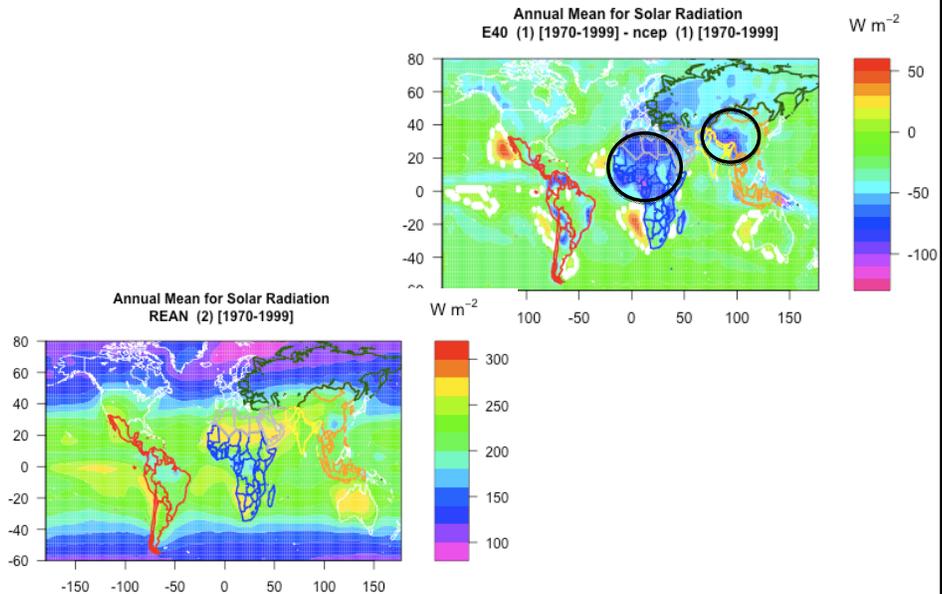
- Soil erosion at inland communities is affected by shorter winters or changes in water use, precipitation, and surface runoff
- Training ranges on inland permafrost tundra, environmental and human health/safety risk of operations on permafrost, increase in wildfires, can adjust inland operations schedule to potentially shorter winters, can adjust controlled burns, limited models and predictive capabilities are available, other options
- Inland installations, energy infrastructure and energy security that depend on climatic events such as cold/heat waves, drought/flooding and natural resources affected by climate change
- Many other examples

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Uncertainty in observed climate



Uncertainty in observed climate



Adaptation ... which path?



Straight Wake:
Single-minded Adaptation



Erratic Wake:
Adaptive Adaptation



Troccoli
(2010)



Uncertainty for the inland systems:
Are adaptation strategies for coastal going to
affect inland?



WG2 Goal

- Chapter scope, content, outline, assignments articulated for presentation at the Wednesday plenary
- The chapter will identify:
 - Critical new concepts and ideas
 - Critical tools
 - Research needs and agenda
- The draft white papers provide starting points for discussion over the next three days

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WG2 Deliverables and Schedule

- **Deliverables:**
 - Summarize approach and the outline of chapter
 - Discuss key learnings, critical concepts, and critical tools
 - Summarize proposed research agenda
 - Discuss Action Register – how we are going to get chapter done
- **Schedule:**
 - WG2 meetings every day during NATO ARW
 - Plenary Presentation on Wednesday
 - Draft Chapter (15 July)
 - Final Summary Chapter for the book (1 September)

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