

Prospectus for a Climate Science Red/Blue Exercise

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The U.S. Global Change Research Program (USGCRP) issued the congressionally mandated third National Climate Assessment in 2014 (NCA2014) and is scheduled to issue the fourth in 2018. As part of that latter, a Climate Science Special Report (CSSR) has been drafted and reviewed by the National Academies. The CSSR is supposed to be a comprehensive and updated assessment of the state of knowledge on human-induced climate change, including observed and future projected changes in temperatures, precipitation patterns, extreme-weather events, sea-level rise, and ocean acidification, focused primarily on the United States. It is set for release in Fall, 2017 after undergoing an interagency clearance process.

The issuance of the CSSR is an opportunity for the USG to convene an unprecedented Red Team/Blue Team Exercise (RBE) to ensure that certainties and uncertainties in projections of future climates are accurately presented to the public and decision makers. In particular, an RBE would:

- Provide an extra layer of scrutiny, warranted by the importance and complexity of climate science
- Test the extent to which the CSSR consensus is robust under informed and concerted critique
- Help ensure that the CSSR is free of the kind of misrepresentations that appeared in NCA2014
- Demonstrate the nature, substance, and quality of informed debate about climate science

Process: A Red Team of scientists would write a critique of the released CSSR and a Blue Team would rebut that critique. Further exchanges of documents would ensue to the point of diminishing returns. A Commission would coordinate and moderate the process and then hold one or more hearings to highlight points of agreement and disagreement, as well as steps that might resolve the latter. The process would unfold in full public view: the released CSSR, the exchanged documents, and the hearings. The USG might revise the CSSR in light of the RBE proceedings; in any event, the latter would be a useful supplement to the CSSR itself.

Oversight: A Steering Committee composed of representatives from relevant Federal agencies plus the Convener (see **Staffing** below) would provide high-level oversight and sponsorship of the process. It would ensure that the RBE is executed according to an agreed-upon plan, but would be enjoined from influencing the substance or dissemination of the RBE proceedings. Personnel, funding, and administrative support would be provided by a host Federal agency, whose representative would also chair the Steering Committee.

Team and Commission members would be appointed by the Steering Committee, with a Captain for each Team responsible for coordination and delivery of the documents and, ultimately, representation at the hearings. Considerations for each panel are as follows:

- **Red Team:** A panel of five to ten senior scientists avowedly divergent from the stance represented by NCA2014. The Convener would offer nominations to the Steering Committee.
- **Blue Team:** An equal number of senior climate scientists supportive of the NCA2014 and spanning the relevant disciplines. Authors of NCA2014, the CSSR, and NAS reviewers of the CSSR would be pools from which to draw.
- **Commission:** A panel of high-profile members with reputations for credibility and integrity. Most, but not all, should have technical expertise, preferably not in climate science but in related fields (e.g., modeling of complex physical systems). Members must include individuals

with expertise statistics, legal evidentiary proceedings, and research reproducibility. Commission members need not be neutral in their stance on climate science, but the Commission must be balanced if the RBE is to have integrity.

In preparing the various documents, the Teams would have the ability to “reach back” into the broader scientific community for assistance on particular points.

Timeline: The RBE could be completed within a year, **with precise timing depending upon** Notionally,

06/01/17	“Quiet” RBE kickoff – Project leadership and staff in place
09/01/17	Public release of CSSR; announcement of RBE exercise and members of the Commission and Teams
11/01/17	Red Team delivers written critique
01/01/18	Blue Team issues rebuttal
02/01/18	Red Team issues surrebuttal
03/01/18	Blue Team issues final response
04/01/18	First Commission hearing
05/01/18	Second Commission hearing (if needed)
06/01/18	Final documentation assembled and disseminated; RBE terminated

Staffing: Beyond the Teams and Commission, the RBE would be executed with a small, high quality staff, who would be Feds (unless the whole RBE is executed under a contract)

- The RBE’s **Convener** would be Dr. Steven Koonin, who successfully convened a similar [workshop](#) for the American Physical Society in January, 2014. He would be responsible for the timeliness and quality of RBE execution according to the plan and for chairing the Commission. The Convener would be a member of the Steering Committee and report regularly to it. The Convener would be compensated at 50% to carry out these duties [it is possible Koonin would need to become an IPA or SGE]
- A **Project Director** reporting to the Convener would coordinate the whole
- A **Public Affairs Director** would handle web and social media postings and media inquiries
- An **Administrative Assistant** would handle practicalities (travel, logistics) for Team meetings and Commission Hearings
- Three **Technical Assistants** (one each for the Teams and the Commission) would assist in preparation of the documents and the hearings

Resources: Commission and Team members would serve *pro bono*. Most of the RBE could be conducted electronically through email and conference calls, but funding for some in-person meetings will be essential. Four one-day meetings for each of the teams (2 for the first document, one for the second, one for hearing prep) and five one-day meetings for the Commission (kick-off, mid-course, hearing prep, two hearings) seem about right. All meetings would be held in DC unless travel considerations would make another location easier.

Outreach option: The RBE would provide unusual opportunities for public outreach on Climate Science. Beyond the Commission hearings themselves, the CSSR and critique/response papers produced by the Teams could be the foundation for discussions in secondary schools and universities, as well as columns/interviews in the media; social media coverage would also be an option. Even more ambitious

would be documentary-like coverage of the whole process. If an enhanced outreach effort were undertaken, the staff and resources listed above would need to be augmented significantly.

Legalities: The RBE as outlined in this prospectus needs to be tested against FACA and other possibly applicable Federal regulations.