

Comment on CCSP Product 4.7 Prospectus

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Area of Expertise: Transportation and climate change, simple earth system models, integrated assessment, mitigation

General Comments:

This assessment product considers the impacts of climate variability and change. It takes a narrow focus on a particular sector for a particular region. The prospectus has some important deficiencies. The narrow focus may allow a more detailed and accurate assessment of transport for the region, however, transport may in many cases be more robust than other aspects of society for the region; there should be some effort to put transport sector vulnerabilities into the context of vulnerabilities of other aspects of society -- this will be directly needed when considering the role of transport in evacuations. While the initial intent of the prospectus is to look at climate variability and change, the prospectus drifts towards only considering gradual changes in climate. I would expect that for this region, hurricanes and tropical storms may form the dominant risk from climate/weather and should be a primary focus of the prospectus and assessment product, yet the prospectus is not set up to deal with these causes and does not engage the expertise to deal with these causes or their risk management. Such expertise should be engaged and the prospectus redrafted. Finally, there does not seem to be consideration of how transport may evolve in this region over the long time-scales that are considered in climate projections; analysis of the evolution of transport in this region should be included. These are critical deficiencies in the draft proposal. -- *Haroon Kheshgi, ExxonMobil Research & Engineering Company*

DOT / USGS Response:

Thank you for these thoughtful comments and suggestions.

We agree that this prospectus is focused on the assessment of the impacts of climate variability and change on the transportation sector in a specific region, which is our intent. While assessments have been conducted regarding the potential impacts of climate variability and change on other sectors, this will be the first major United States study to focus on transportation. Because a robust transportation system is critical to the public good, we feel that assessments specifically focused on this sector are warranted, and will make a significant contribution to our overall understanding of climate assessment. The sponsors decided to focus on one region for this initial study to enable the study team to develop and test methodologies to approach this complex interdisciplinary topic. We expect that this region-specific assessment of transportation impacts will help develop methodological approaches which then can be applied to assess impacts in other areas of the country.

We agree with the commentor that the implications for transportation services are closely linked to other societal impacts and vulnerabilities. We intend to address the significance of this broader context as part of the risk analysis process.

The degree to which this assessment should concentrate on the effects of severe weather events has been extensively discussed by the project sponsors. We agree that these short-term effects are a dominant risk in this region, and we will include the related potential impacts in the assessment. We also note that extensive work has been conducted in this region relative to hurricane and storm emergency response, while very little information is available regarding other aspects of

climate, such as changes in stream flow and mean surface temperature. The study is designed to consider both short- and longer-term effects of climate variability and change.

The commentor suggested that we engage the expertise needed to deal with potential effects relating to hurricanes and tropical storms. We agree and the research team has been expanded to include professionals from Louisiana State University's Hurricane Center with extensive experience in storm surge analysis and modeling. We have also added the Louisiana State Climatologist to the Research Team, who will be responsible for analyzing historical trends in climate for the study region. A senior climatologist of NOAA's National Climatic Data Center is a member of the Expert Panel that will help guide the design and completion of this project. Engaging the expertise, guidance, and services of professionals capable of analyzing and interpreting data describing trends in storm events, as well as long-term climatic change, was intended in the study design and we should have emphasized this more in the Prospectus.

We also agree that the long-range trends and plans for transport systems in the region should be considered as part of this analysis. The prospectus has been revised to clarify these intentions. Specifically, we expect to examine the long range transportation plans for affected regions as a first approximation of the anticipated transportation infrastructure and the decisions facing the area in the future.

Specific Comments:

Page 2, line 40-44: It is inappropriate to single out sea level rise as the particular vulnerability of this region when the gradual sea level rise included in projections is not the primary risk of climate to the region. Suggest replacing the last 2 sentences with: "This region is subject to the direct effects of hurricanes and tropical storms. Given its low elevation, the area is also particularly vulnerable to flooding and storm surges that accompany hurricanes and tropical storms. These effects may be exacerbated by global sea level rise and local land subsidence."-- [Haroon Kheshgi, ExxonMobil Research & Engineering Company](#)

DOT / USGS Response:

We see no problem with this change in working and will revise the prospectus accordingly.

Page 4, line 16-: The prospective selection of lead authors does not reflect the knowledge and skills and background most appropriate for this task. Given the importance of hurricanes and tropical storms, the lead authors should reflect expertise in current and prospective risk management associated with these events, connect to ongoing efforts to mitigate these risks and improve their risk management. The author team should also include experts on the 4 particular transport characteristics (ports, oil transport, pipelines, flood evacuation) of this region described on page 2 lines 35-40. It is important to assess which of these transport characteristics are robust to climate variability or not, both now and as projected into the future with outlooks for changing transport activity and infrastructures. This draft prospectus should be rethought with engagement of this expertise and section 5 redrafted. -- [Haroon Kheshgi, ExxonMobil Research & Engineering Company](#)

DOT / USGS Response:

The project sponsors recognize the need to incorporate additional transportation expertise. This will be provided through a Transportation Analysis Team identified by the Department of Transportation. The Team will include individuals with expertise in ports, rail, highways and transit, pipelines, aviation, emergency management, and transportation planning and investment. In addition, the composition of the Expert Panel includes transportation and planning decision makers and researchers.

The prospectus has been revised to clarify the involvement in the study of individuals with transportation expertise.

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Area of expertise: Education/communication

General Comment:

The National Park Service manages several areas along the Gulf Coast (www.nps.gov). Each of these sites has a professional staff of interpreter/educators who may be able to assist in communicating your message to the general public. Climate change is felt by many to be one of the most critical issues facing NPS areas nationwide. Using these professional in-park resources will enable you to forge communication links with the general public on climate issues and their impacts to National Parks.

Thanks,

Gregg Bruff

DOT / USGS Response:

We appreciate your comments about the importance of communication with the general public on this topic, and we welcome the participation of the National Park Service in this study. More specifically, we will contact the National Park Service headquarters of Gulf Islands National Seashore and keep them informed as we implement the study.

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usdoc noaa id 032105B climate change prospectus
for ccsp synthesis and assessment

General Comment:

I note that you had a program and nobody from the general public was invited. I hereby ask to be invited as a member of the general public to your next conference. One wonders why the general public and their outlook on these matters is never considered, just 64 leading "experts" and "decision makers". The same old crowd over and over. bureaucracy personified. We have all seen far too many self appointed "experts" make horrible decisions, so that the need for a broader base is extremely important.

DOT / USGS Response:

We agree with the commentor's view that participation and input by the public is important, and appreciate the interest expressed in this topic. The event referred to in the prospectus was a workshop hosted by the Department of Transportation to gain technical input on research needs regarding the potential impacts of climate variability and change on the transportation sector.

To accomplish this, the sponsoring agencies sought to engage individuals representing a broad range of disciplines and professional experience. The workshop was necessarily limited in attendance to ensure a balance of viewpoints and knowledge, and to allow the participants to engage in in-depth working sessions. DOT and USGS welcome comments on the outcome and recommendations of that workshop. Further, as this study progresses we will continue to engage the public in our research activities through stakeholder meetings in the study region and by posting draft products for public comment.

Name: NeatEye

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That which brings the highest happiness!!

DOT / USGS Response:

We appreciate the enthusiasm and good wishes expressed by the commentor.