

## NOAA Science Advisory Board

### Research and Development Portfolio Review Task Force Terms of Reference

#### Charge

The Science Advisory Board will conduct a needs-based review to provide advice to NOAA on prioritization of the agency's research and development (R&D) portfolio (including identification of gaps and areas for integration of effort) that is strongly linked to NOAA's current Strategic Plan and recognizes the high likelihood of constrained financial resources. Further, the SAB will provide advice on an appropriate organizational approach within NOAA for support of this R&D portfolio.

The intended audience for this review is NOAA leadership, Department of Commerce leadership, the Office of Management and Budget, the Office of Science and Technology Policy, as well as the US Congress.

#### Questions

A successful review of NOAA's R&D portfolio is one that provides clear answers to NOAA leadership, staff, and policy makers in Congress for the following questions, as posed by the NOAA Administrator:

1. What portfolio of R&D activities does NOAA need to achieve its vision and strategic goals?
  - What R&D portfolio does it currently have?
  - What are the differences?
  - What changes should be made?
  - What changes take priority?
2. How should NOAA's R&D portfolio be organized and managed to achieve its vision and strategic goals? Is NOAA's expertise appropriate?
  - How is it organized and managed now? What expertise does it have now?
  - What are the differences?
  - What changes should be made?
  - What changes take priority?

#### Assumptions

- By managing R&D as a portfolio, NOAA can explicitly assess the tradeoffs among competing investment opportunities in terms of their benefits, costs, and risks.
- A business model for R&D based on agency strategy yields a business case for OMB, Congress. The results of this portfolio review may be used as a basis for advocacy for NOAA R&D.
- This review will take a "zero-based" rather than an incremental approach to strategy, but recognize limits to change.
- This review will stay at the strategic level, sacrificing depth for breadth.
- NOAA's research can be directed toward fundamental understanding ("pure basic research") ultimate use ("pure applied research"), or both ("use-inspired research").

## Scope

The scope of this study includes NOAA's research and development portfolio. Research and development at NOAA is defined consistent with the definitions used by the National Science Foundation (<http://www.nsf.gov/statistics/nsf10303/pdf/nsf10303.pdf>, pages 337-338) and the Office of Management and Budget ([http://www.whitehouse.gov/sites/default/files/omb/circulars/a11/current\\_year/s84.pdf](http://www.whitehouse.gov/sites/default/files/omb/circulars/a11/current_year/s84.pdf), pages 7-8).

The organizational scope of the study includes all of NOAA's R&D activities as well as the R&D activities of external partners that are conducted with NOAA support. It should also consider the transfer of knowledge and technology that results from R&D to its intended application. The study may consider other key activities and infrastructure as necessary to answer the questions above.

The task force will provide enough detail in its recommendations to identify where changes should be made and where new opportunities exist and to inform budget prioritization or organizational changes.

## Timing

Preliminary recommendations for both questions will be provided to NOAA by the middle of November 2012, including a high level identification of opportunities and issues for both the composition of NOAA's R&D portfolio and its organization/management, with emphasis on the former. The final report will be provided to the SAB at its Spring 2013 meeting.

## Roles and Responsibilities

PRTF members will contribute to the development of analysis frameworks, determine information required by NOAA, meet with relevant parties, analyze information, and develop recommendations. The PRTF will have two co-chairs who will coordinate activities within the PRTF, with the SAB, and with NOAA. The co-chairs will also deliver preliminary and final reports to the SAB.

NOAA will work with the PRTF to develop approaches to provide the information required; deliver information about NOAA's requirements, NOAA's R&D enterprise, and the infrastructure that supports R&D. NOAA will also provide logistical support for preparing PRTF materials, travel, and meetings. NOAA will cover the PRTF-related travel expenses for task force members.