The weather enterprise is rapidly changing.

- Advances in technology—from computing, artificial intelligence and communication to sensors and observation platforms—present opportunities and challenges.
- Innovations in other sectors—such as automated vehicles, increased air traffic, drones, and precision agriculture—are demanding more from the weather enterprise.
- Improvements in forecasting—hyper-local, subseasonal-to-seasonal, probabilistic systems, impact-based, and earth system modeling—offer promising prospects.
- The role of the private sector is evolving, with a new generation of companies deploying observations, high-performance modeling, and sophisticated analytics to advance forecasting.
- The increasingly complicated landscape of the weather enterprise, in the United States and internationally, makes it both more important to coordinate and also more challenging.

The time is ripe to bring the community together around a common vision and a framework for coordination.

The proposed study will mix traditional and innovative elements. The study committee will reflect the complexion of the weather enterprise, including academic, public sector, and private sector experts. They will engage the broad weather community—through requests for information, sustained on-line engagement, and in-person workshops—to outline a vision for the enterprise over the next 10-25 years. The final product will be a consensus report authored by the committee addressing these four tasks:

1. Describe the weather enterprise today
2. Consider how the weather enterprise may change in the next few decades
3. Develop a comprehensive ideal vision of a robust and successful weather enterprise
4. Recommend key steps to enable the weather enterprise to achieve the vision

National Academies of Sciences, Engineering, and Medicine
Board on Atmospheric Sciences and Climate (BASC) Planning Team

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The National Academies can help the weather enterprise navigate the challenges of the coming decades.

- Founded in 1863 to provide independent, objective advice to the nation on all matters of science.
- Reports are recognized by federal agencies and Congress as a community consensus.
- Many previous reports have led the way for the weather enterprise.
- Well established mechanisms to confront and address hard issues, such as factors that limit the weather enterprise from collaborating as fully as it could.
- Ability to elevate awareness of the national investment in the weather enterprise.

We seek sponsorship that reflects the complexion and complexity of the weather enterprise.

We aim to engage the broader weather enterprise community from the beginning of the project and to ensure that the funding portfolio reflects the disposition of the enterprise in general. Sponsorship and in-kind contributions totaling $1.5 million is sought from multiple partners:

- Government agencies with responsibility for shepherding the federal investment in weather research, observation, and operations
- Government agencies that depend on weather information to meet their mission
- Private companies—both longstanding and newcomers—who are already helping shape the future weather enterprise
- University departments that are advancing knowledge and training the next generation of weather professionals
- Professional societies that already work to convene and advance the weather enterprise
- Individuals who are keen to ensure the long-term success of the weather enterprise

Please contact us if you are interested in contributing.

For more info... http://dels.nas.edu/global/basc/weatherenterprise

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