Testimony Regarding the FY09 Budget Request
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Subcommittee on Science, State, Justice, and Commerce, and Related Agencies
Committee on Appropriations, U.S. House of Representatives

We submit this written testimony for the record of the U.S. House of Representatives Committee on Appropriations, Subcommittee on Science, State, Justice and Commerce, and Related Agencies. We serve as the two Co-Chairs of the Weather Coalition.

The Weather Coalition brings together representatives of industry, academia, and scientific and professional associations to advocate effectively for initiatives that advance U.S. weather observation, prediction, and warning capabilities. The Weather Coalition's mission is to identify and advocate for the common priorities of the diverse members of the national weather enterprise. In particular we support national initiatives that expand research and development collaborations among industry, academia, and government agencies; support the establishment of a robust Earth observing system; and support the infrastructure, including human and computing resources, necessary to use global observations effectively for research and operations.

The Weather Coalition is greatly concerned about decreasing investments in real terms for NOAA and NASA. These are the two key agencies that provide the necessary surface-based and satellite observations to support operational forecasting. These agencies also support much of the basic and applied research that leads to continued improvements in prediction models. And NOAA in particular has a central role in providing information and decision support tools to a wide range of government, private sector and individual end users, enabling the nation to respond effectively to imminent short-term threats from weather hazards and to plan and prepare for the long-term future of the United States as we move into an uncharted climate. NOAA observational data and information products support a vibrant and growing private sector weather industry, which in turn provides highly-tailored products to weather-dependent components of the national economy. **Thus**, **we support an FY09 request of $4.5 billion for NOAA overall, and $4.583 billion for NASA's Science Mission Directorate**.

National Oceanic and Atmospheric Administration (NOAA)

NOAA is simply being asked to do too much with too small a budget. Over the last few years the NOAA budget has not kept pace with inflation. The agency faces increased demands for weather and climate data and analysis. Major investments are needed to maintain, replace and upgrade critical elements of NOAA observing systems, including both satellite-based sensors and ground-based weather radar. The America COMPETES Act, signed into law last August, states that NOAA "shall be a full participant in any interagency effort to promote innovation and economic competitiveness through near-term and long-term basic scientific research and

development and the promotion of science, technology, engineering, and mathematics education consistent with the agency mission, including authorized activities." Yet agency funding is not keeping pace with the wide-ranging and growing workload.

The atmospheric sciences community appreciates the Administration's request of $4.1 billion for FY09, but this increase of 5.5 percent over FY08 will primarily augment the satellite programs while others important programs are short-changed. ***We urge the Members to support an appropriation of <u>at least</u> $4.5 billion for NOAA in FY09 – a level recommended by the Senate for the past three fiscal years and endorsed by the multi-sector Friends of NOAA Coalition -- and to do so while maintaining vital support for other portions of the Subcommittee's research and development portfolio.*** While this amount is not sufficient to meet all of NOAA's current obligations well, it would at least begin to alleviate the pressures that have built up over many years and set a more realistic (although still inadequate) base on which to organize and mobilize this agency to meet current and future obligations.

NOAA has the potential to make much greater contributions, but the agency is struggling. There simply must be a better balance between NOAA's infrastructure, operations, and research funding, as well as effective management and organizational structure at all levels, for this agency to accomplish its mission. In this regard, we strongly believe that NOAA would benefit from both an Organic Act and the creation of an Independent Advisory Committee. An Organic Act would provide a single clear statutory authority for NOAA's mission and improve upon the confusing array of current directives. A federally chartered advisory committee should be established to operate within the NOAA policy-making process with regard to weather and climate operations and services, complementing the overall responsibilities of the existing NOAA Science Advisory Board. This would allow for meaningful public-private coordination and cooperation with respect to the weather and climate enterprise which would serve to leverage all assets in the Enterprise to provide the greatest value proposition to the nation. ***We recognize that these issues go beyond the immediate FY09 appropriations issues, but urge the Members to include in the FY09 funding bill language that directs that a NOAA advisory committee for the weather and climate enterprise be created and supports a NOAA Organic Act.***

National Weather Service (NWS). Within NWS, we fully support the FY09 requested program change highlights including support for weather data buoys to enhance hurricane and severe storm observations, the effort to develop enhanced fire weather modeling capability, and additional water vapor sensors that contribute to improved weather aviation services within the Integrated Upper Air Observing System. **We urge the Members to support the FY09 request of $930.7 million for the NWS, for the combined ORF and PAC accounts.**

Ground-based radar program are of particular importance to the weather community. Despite some additional funding in the FY09 request for the Profile Replacement Program, this program is still underfunded given the pressing need to convert the wind profiler network operating frequency before it is taken over by search-and-rescue satellites. NOAA NWS should also be given adequate funding to ensure full deployment of the dual polarization upgrades to the national network of NEXRAD/WSR-88 D radars

Office of Oceanic and Atmospheric Research (OAR). The FY09 request moves the US Weather Research Program (USWRP) from the National Weather Service back to OAR. This chronically underfunded program will fund THORpex, a multi-year international field experiment to improve two to ten-day forecasts, as well as experimental hurricane forecasting work. USWRP also funds the Developmental Testbed Center, a critical program for evaluating the forecasting skill of weather models and helping to move research advances into the hands of operational forecasters.

Within OAR Weather and Air Quality Research, hurricane forecast improvement should be more actively pursued. NOAA has a key role in research activities to improve hurricane forecasting, and in particular a focus on improving the fundamental understanding and forecasting skill of hurricane intensity. NOAA operational forecasting will also be a major beneficiary of hurricane research. ***We urge the Members to support the FY09 request of $372.2 million (Operations, Research and Facilities -- ORF) for the Office of Oceanic and Atmospheric Research.***

National Environmental Satellite, Data and Information Service (NESDIS). We support the additional funding for NESDIS for the geostationary satellite series, GOES-R, which provides important data for weather forecasts and warnings. We are concerned that the FY09 request underfunds the NESDIS Data Centers which store and distribute satellite data. The work of the Data Centers is unglamorous compared to the satellite programs, but is a critical element to bring the data to end-users.

We urge the Members to consider the NESDIS Procurement, Acquisition and Construction (PAC) account FY09 request level of $1.24 billion to be the base level for this line office; to examine the erosion of funding for the NESDIS Data Canters and appropriate for them an inflationary increase; and to continue to pursue solutions to this nation's critical Earth observing program.

National Aeronautics and Space Administration (NASA)

NASA's Science Mission Directorate (SMD) has a central role in the nation's satellite programs and a key role in supporting federal research. Yet despite increasing policy-driven demand for information and analysis the funding in this area is not keeping up with needed support for observing systems and research. The Weather Coalition supports the recommendations of the National Research Council report, *Earth and Science Applications from Space: National Imperatives for the Next Decade and Beyond*, otherwise known as the Decadal Survey. Many of the missions in this report's blueprint provide critical data for weather research and forecasting. ***We urge the Members to make the needed investments to get back on track to implement the Decadal Survey recommendations, and to this end recommend increasing the SMD funding levels to $4.583 billion, $142 million above the FY09 request and sufficient to keep pace with 3 percent inflation.***

On behalf of the Weather Coalition, we thank the Committee for strengthening the nation's investment in the infrastructure, research, and operational programs that will continue to produce a strong national weather enterprise.