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107TH CONGRESS
2D SESSION

H. R. 4791

To authorize appropriations for the United States Weather Research Program, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

MAY 22, 2002

Mr. EHLERS (for himself and Mr. ETHERIDGE) introduced the following bill; which was referred to the Committee on Science

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A BILL

To authorize appropriations for the United States Weather Research Program, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ''United States Weather Research Program Act of 2002''.

SEC. 2. PROGRAM FOCUS.

The focus of the United States Weather Research Program, an interagency program established under section 108 of the National Oceanic and Atmospheric Admin-

istration Authorization Act of 1992 (15 U.S.C. 313 note), shall be on—

(1) hurricanes, floods, and heavy precipitation, including both snow and rain;

(2) building on existing investments, including those of the National Weather Service modernization effort, to dramatically accelerate improvement in weather forecasts;

(3) providing attention and resources in areas where progress can be made quickly and where the impact will be greatest;

(4) establishing goals that can be attained by leveraging the resources of several agencies and through the collaborative scientific efforts of the operational and research communities in academia and government; and

(5) making research grants to universities and other research institutions.

SEC. 3. PROGRAM RESEARCH PRIORITIES.

The research priorities of the United States Weather Research Program shall be in the areas of—

(1) hurricanes, to improve—

(A) landfall location forecasts; and

(B) forecasts of hurricane strength;

(2) heavy precipitation, to improve forecasts of both winter storms and rain storms through better prediction of timing, location, and intensity;

(3) floods, to improve—

(A) flood forecasting by coupling precipitation forecasts with hydrologic prediction; and

(B) forecasting and warning systems for inland flooding related to tropical cyclones, by—

(i) improving the capability to accurately forecast such flooding through research and modeling;

(ii) developing, testing, and deploying a new flood warning index that will give the public and emergency management professionals fuller, clear, and more accurate information about the risks and dangers posed by expected tropical cyclone-related inland flooding;

(iii) training emergency management officials, National Weather Service personnel, meteorologists, and others as appropriate regarding improved forecasting techniques for such flooding, risk management techniques, and use of the inland

flood warning index developed under clause (ii); and

(iv) conducting outreach and education activities for local meteorologists and the public regarding the dangers and risks associated with tropical cyclone-related inland flooding and the use and understanding of the inland flood warning index developed under clause (ii);

(4) two-to-fourteen day forecasting, to—

(A) improve short and medium range numerical weather predictions and warnings of high-impact weather events;

(B) conduct the Hemispheric Observing System Research and Predictability Experiment (THORpex) to fill observational gaps in the Northern Hemisphere; and

(C) test and evaluate advanced data assimilation techniques in global models;

(5) societal and economic impacts, to—

(A) identify methods of delivering weather information effectively and recommend ways to improve weather communications;

(B) assess social and economic impacts of adverse weather ranging from disastrous to routine;

(C) evaluate what weather information is most useful to public and private decision makers; and

(D) perform research on societal and economic impact to ensure a connection between weather research and improvement of the human condition; and

(6) testing research concepts at United States Weather Research Program-sponsored test bed centers in an environment identical to those used by operational meteorologists, to enable technology transfer to those operational meteorologists.

SEC. 4. INTERAGENCY PLANNING AND PROCESS.

The National Oceanic and Atmospheric Administration, as the lead agency of the United States Weather Research Program, shall coordinate and consult with the National Science Foundation, the National Aeronautics and Space Administration, other appropriate Federal agencies, and other appropriate entities to develop, and annually update, a five-year plan—

(1) describing how Federal agencies can best team with universities and other research institutions;

(2) identifying social, economic, and military needs and requirements for weather information, as well as defining the research required to meet these needs;

(3) outlining methods for dissemination of weather information to user communities; and

(4) describing best practices for transferring United States Weather Research Program research results to forecasting operations.

SEC. 5. REPORTING REQUIREMENTS.

Not later than one year after the date of the enactment of this Act, and annually thereafter, the Administrator of the National Oceanic and Atmospheric Administration shall transmit to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a report which shall include—

(1) the most recent five-year plan developed or updated under section 4, including the roles and funding to be provided by various Federal agencies in achieving the objectives of the plan;

(2) a justification of any changes to the plan since the last transmittal under this section;

(3) a detailed assessment of the extent to which the objectives of the plan have been achieved; and

(4) a description of the research activities carried out under section 3(3)(B), along with an analysis of the success and acceptance of the inland flood warning index developed under section 3(3)(B)(ii) by the public and emergency management professionals.

SEC. 6. AUTHORIZATION OF APPROPRIATIONS.

(a) IN GENERAL.—There are authorized to be appropriated to the Office of Atmospheric Research of the National Oceanic and Atmospheric Administration for carrying out this Act—

(1) for fiscal year 2003, $15,000,000, of which $1,150,000 shall be for the purposes described in section 3(3)(B);

(2) for fiscal year 2004, $15,525,000, of which $1,200,000 shall be for the purposes described in section 3(3)(B); and

(3) for fiscal year 2005, $16,100,000, of which $1,250,000 shall be for the purposes described in section 3(3)(B).

(b) FORECASTING MODEL GRANTS.—Of the amounts authorized under subsection (a) for the purposes described in section 3(3)(B)—

(1) $250,000 for fiscal year 2003;

(2) $260,000 for fiscal year 2004; and

(3) $270,000 for fiscal year 2005,

shall be made available for competitive, merit-reviewed grants to institutions of higher education (as defined in section 101 of the Higher Education Act of 1965 (20 U.S.C. 1001)) to develop models that can improve the ability to forecast coastal and estuary-inland flooding that is influenced by tropical cyclones. The models should incorporate the interaction of such factors as storm surges, soil saturation, and other relevant phenomena.

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