

**AMENDMENT TO H.R. 6093**  
**OFFERED BY MR. JACKSON OF NORTH CAROLINA**

Add at the end of title V the following:

1 **SEC. 507. PRECIPITATION FORECAST IMPROVEMENT PRO-**  
2 **GRAM.**

3 (a) IN GENERAL.—Title VI of the Weather Research  
4 and Forecasting Innovation Act of 2017 (15 U.S.C. 8501  
5 et seq.) is amended—

6 (1) by redesignating section 603 as section 604;

7 and

8 (2) by inserting after section 602 the following  
9 new section:

10 **“SEC. 603. PRECIPITATION FORECAST IMPROVEMENT PRO-**  
11 **GRAM.**

12 “(a) IN GENERAL.—The Under Secretary, in collabo-  
13 ration with the United States weather industry, other Fed-  
14 eral agencies, and academic partners, shall maintain a  
15 program to improve precipitation forecasting across  
16 timescales.

17 “(b) GOAL.—The goal of the program under sub-  
18 section (a) shall be to provide more accurate, reliable, and  
19 timely precipitation forecasts across timescales through  
20 the development and application of a fully coupled Earth

1 system prediction model in order to reduce the loss of life  
2 or property related to precipitation extremes, with a focus  
3 on the following:

4           “(1) Improving the understanding and pre-  
5           diction of precipitation extremes from a variety of  
6           weather systems, including atmospheric rivers.

7           “(2) Evaluating and incorporating, as appro-  
8           priate, innovative observations into operational moni-  
9           toring and forecast systems to improve precipitation  
10          forecasts.

11          “(3) Improving earth system model predictions  
12          of precipitation extremes from atmospheric rivers,  
13          tropical cyclones, summer-time thunderstorms, win-  
14          ter storms, and other phenomena, in coordination  
15          with relevant programs.

16          “(4) Enhancing research transition to oper-  
17          ations through testbeds, including the evaluation of  
18          physical and social science, technology, and other re-  
19          search to develop products and services for imple-  
20          mentation and use by relevant stakeholders.

21          “(5) Incorporating social, behavioral, and eco-  
22          nomic sciences best practices into operations for  
23          more effective and actionable watch and warning  
24          products that help drive public safety and damage

1 mitigation decisions in coordination with the pro-  
2 grams established in accordance with this Act.

3 “(6) Ensuring data and metadata management  
4 processes are in place to support data access and ar-  
5 chive for long term research and operations among  
6 multiple partners.

7 “(c) ACTIVITIES.—In carrying out the program  
8 under subsection (a), the Under Secretary shall support  
9 research-to-operations work, including relating to the fol-  
10 lowing:

11 “(1) Implementing key strategies and following  
12 priorities and objectives outlined by the National  
13 Oceanic and Atmospheric Administration’s ‘Precipi-  
14 tation Prediction Grand Challenge Strategy’.

15 “(2) Improving the physical science, operational  
16 modeling and tools, and technology related to better  
17 forecasting precipitation extremes across timescales.

18 “(3) Improving the social, behavioral, risk, com-  
19 munications, and economic sciences related to  
20 vulnerabilities, risk communication, and delivery of  
21 information critical for reducing the loss of life or  
22 property related to extreme precipitation.

23 “(4) Conducting the research necessary to de-  
24 velop and deploy probabilistic weather forecast guid-

1       ance technology relating to precipitation extremes in  
2       operational practice.

3               “(5) Enhancing the operational capacity of the  
4       National Weather Service to deliver decision support  
5       for increasing precipitation extremes.

6               “(6) Expanding computational resources to im-  
7       prove precipitation modeling.

8       “(d) ANNUAL BUDGET.—The Under Secretary shall,  
9       not less frequently than annually, submit to Congress a  
10      proposed budget corresponding with carrying out this sec-  
11      tion.”.

12      (b) CLERICAL AMENDMENT.—The table of contents  
13      in section 1(b) of the Weather Research and Forecasting  
14      Innovation Act of 2017 is amended by striking the item  
15      relating to section 603 and inserting the following new  
16      items:

    “Sec. 603. Precipitation forecast improvement program.

    “Sec. 604. Definitions.”.

