

110TH CONGRESS
1ST SESSION

H. R. 2531

To improve United States hurricane forecasting, monitoring, and warning capabilities, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

MAY 24, 2007

Mr. MELANCON (for himself and Mr. KLEIN of Florida) introduced the following bill; which was referred to the Committee on Science and Technology

A BILL

To improve United States hurricane forecasting, monitoring, and warning capabilities, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Improved Hurricane
5 Tracking and Forecasting Act of 2007”.

6 **SEC. 2. FINDINGS.**

7 Congress makes the following findings:

8 (1) Scatterometers on satellites are state-of-the-
9 art radar instruments which operate by transmitting
10 high-frequency microwave pulses to the ocean sur-

1 face and measuring echoed radar pulses bounced
2 back to the satellite.

3 (2) Scatterometers can acquire hundreds of
4 times more observations of surface wind velocity
5 each day than can ships and buoys, and are the only
6 remote-sensing systems able to provide continuous,
7 accurate and high-resolution measurements of both
8 wind speeds and direction regardless of weather con-
9 ditions.

10 (3) The Quick Scatterometer satellite
11 (QuikSCAT) is an ocean-observing satellite launched
12 on June 19, 1999, to replace the capability of the
13 National Aeronautics and Space Administration
14 Scatterometer (NSCAT), an instrument which lost
15 power in 1997, 9 months after launch in September
16 1996.

17 (4) The QuikSCAT satellite has the operational
18 objective of improving weather forecasts near coast-
19 lines by using wind data in numerical weather-and-
20 wave prediction, as well as improve hurricane warn-
21 ing and monitoring and acting as the next “El Niño
22 watcher” for the National Aeronautics and Space
23 Administration.

24 (5) The QuikSCAT satellite was built in just 12
25 months and was launched with a 3-year design life,

1 but continues to perform per specifications, with its
2 backup transmitter, as it enters into its 8th year—
3 5 years past its projected lifespan.

4 (6) The QuikSCAT satellite provides daily cov-
5 erage of 90 percent of the world’s oceans, and its
6 data has been a vital contribution to National
7 Weather Service forecasts and warnings over water
8 since 2000.

9 (7) Despite its continuing performance, the
10 QuikSCAT satellite is well beyond its expected de-
11 sign life and a replacement is urgently needed be-
12 cause, according to the National Hurricane Center.
13 Without the QuikSCAT satellite—

14 (A) hurricane forecasting would be—

15 (i) 16 percent less accurate 72 hours
16 before hurricane landfall, and therefore the
17 area expected to be under hurricane dan-
18 ger would rise from 197 miles to 228 miles
19 on average; and

20 (ii) 10 percent less accurate 48 hours
21 before hurricane landfall, and therefore the
22 area expected to be under hurricane dan-
23 ger would rise from 136 miles to 150 miles
24 on average; and

1 (B) greater inaccuracy of this type would
2 lead to more “false alarm” evacuations along
3 the Gulf Coast and Atlantic Coast and decrease
4 the possibility of impacted populations suffi-
5 ciently heeding mandatory evacuations.

6 (8) According to recommendations in the Na-
7 tional Academy of Science’s report entitled “Decadal
8 Survey”, a next generation ocean surface wind vec-
9 tor satellite mission is needed during the three-year
10 period beginning in 2013.

11 (9) According to the National Hurricane Cen-
12 ter, a next generation ocean surface vector wind sat-
13 ellite is needed to take advantage of current tech-
14 nologies that already exist to overcome current limi-
15 tations of the QuikSCAT satellite and enhance the
16 capabilities of the National Hurricane Center to bet-
17 ter warn coastal residents of possible hurricanes.

18 **SEC. 3. PROGRAM FOR IMPROVED OCEAN SURFACE WINDS**

19 **VECTOR SATELLITE.**

20 (a) REQUIREMENT.—The Administrator of the Na-
21 tional Oceanic and Atmospheric Administration shall, in
22 consultation with the Administrator of the National Aero-
23 nautics and Space Administration and the head of any
24 other department or agency of the Federal Government
25 designated by the President for purposes of this section,

1 carry out a program for an improved ocean surface winds
2 vector satellite.

3 (b) PURPOSES.—The purposes of the program re-
4 quired under subsection (a) shall be to provide for the de-
5 velopment of an improved ocean surface winds vector sat-
6 ellite in order to—

7 (1) address science and application questions
8 related to air-sea interaction and coastal circulation;

9 (2) improve forecasting for hurricanes, coastal
10 winds and storm surge, and other weather-related
11 disasters;

12 (3) ensure continuity of quality for satellite
13 ocean surface vector wind measurements so that ex-
14 isting weather forecasting and warning capabilities
15 are not degraded;

16 (4) advance satellite ocean surface vector wind
17 data capabilities; and

18 (5) address such other matters as the Adminis-
19 trator of the National Oceanic and Atmospheric Ad-
20 ministration, in consultation with the Administrator
21 of the National Aeronautics and Space Administra-
22 tion, considers appropriate.

23 (c) ANNUAL REPORTS.—

24 (1) REPORTS REQUIRED.—Not later than six
25 months after the date of the enactment of this Act

1 and annually thereafter until the termination of the
2 program required under subsection (a), the Adminis-
3 trator of the National Oceanic and Atmospheric Ad-
4 ministration shall submit to the Committee on Com-
5 merce, Science, and Transportation of the Senate
6 and the Committee on Science and Technology of
7 the House of Representatives a report on the pro-
8 gram required under subsection (a).

9 (2) ELEMENTS.—Each report under paragraph
10 (1) shall include the following:

11 (A) A current description of the program
12 required under subsection (a), including the
13 amount of funds expended for the program dur-
14 ing the period covered by such report and the
15 purposes for which such funds were expended.

16 (B) A description of the operational status
17 of the satellite developed under the program, in-
18 cluding a description of the current capabilities
19 of the satellite and current estimate of the an-
20 ticipated lifespan of the satellite.

21 (C) A description of current and proposed
22 uses of the satellite by the Federal Government,
23 and academic, research, and other private enti-
24 ties, during the period covered by such report.

1 (D) Any other matters that the Adminis-
2 trator of the National Oceanic and Atmospheric
3 Administration, in consultation with the Admin-
4 istrator of the National Aeronautics and Space
5 Administration, considers appropriate.

6 (d) AUTHORIZATION OF APPROPRIATIONS.—There
7 are authorized to be appropriated to the National Oceanic
8 and Atmospheric Administration \$375,000,000 to carry
9 out the program required under subsection (a).

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