



AMERICAN METEOROLOGICAL SOCIETY

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The Honorable Mark Udall
The Honorable Bart Gordon
U.S. House of Representatives
Committee on Science and Technology
2320 Rayburn Building
Washington, D.C. 20515

Dear Congressman Udall and Congressman Gordon,

On behalf of the American Meteorological Society (AMS), I am writing in reference to the **FAA Research and Development Reauthorization Act of 2007, H.R. 2698**. As you and your colleagues discuss language for the final bill, I urge you to retain **Section 12. Research Program on Space Weather and Aviation** and **Section 14. part b, Assessment of the Impact of Space Weather on Aviation**.

As you know, space weather can have a direct impact on aviation operations. Effects include disruption in High Frequency (HF) communications, satellite navigation system errors, and radiation impacts to humans and avionics. These concerns not only apply to current operations, but become even more important at all latitudes when considered within the framework for the Next Generation Air Transportation System (NextGen) and the rapidly expanding fleet of military and commercial high altitude airships. Additionally, with the potential space tourism and intercontinental space flight markets, these risks are equally important to the commercial space transportation industry.

As air traffic over the poles increases, the aviation industry is becoming more aware of the impacts space weather can have on operations. United Airlines has reported that if polar routes are not available, the additional operating costs and penalties for an unscheduled stop or reroute can total hundreds of thousands of dollars. However, more research is needed to understand the impacts of space weather on aviation. The industry needs a better understanding from the scientific, engineering, and medical communities regarding the risks. Then they can use space weather information and services to reduce aviation costs and maintain safety.

The AMS Policy Program held a policy workshop last November in Washington, DC on Integrating Space Weather Observations and Forecasts into Aviation Operations. Participants represented the aviation community (dispatchers, operations managers, meteorologists, and international organizations); federal government (FAA, NOAA, NSF, NASA, DOD, JPDO); and the space weather community (researchers and vendors). This was part of a broader three year study funded by the National Science Foundation. One of the recommendations that came out of the workshop is that "The FAA should coordinate research studies focusing on the various aviation impact areas (health, avionics, navigation, and communication)." This report is available online at <http://www.ametsoc.org/atmospolicy/spacewxworkshop.html>.

In closing, the language in Sections 12 and 14 are very consistent with what the aviation and space weather communities discussed as essential to increasing the safety, reliability, and efficiency of the nation's aviation operations through more effective use of space weather forecasts and information. I urge you to retain this language in H.R. 2698.

Sincerely,

Dr. Keith L. Seitter
AMS Executive Director