

Professional Societies and Space Weather Policy

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The American Meteorological Society (AMS) recently performed a significant service to all concerned about the societal impacts of space weather and about possible steps to mitigate such impacts. In a succinct policy statement adopted by the AMS Council on 9 July 2013, a space weather definition and the principal socioeconomic concerns about space weather were clearly articulated: (http://www.ametsoc.org/POLICY/2013spaceweather_amsstatement.html).

Moreover, the challenges and benefits of space weather predictions and forecasts were also clearly spelled out. Importantly, the AMS statement made recommendations and outlined the essential roles that government, industry, and academia each should play in a truly effective national space weather program.

It is time for professional societies to address scientific and engineering issues that are of paramount societal importance. The AMS has become a leader in working to bring space weather concerns to the attention of policy makers. It also is providing a key forum at annual AMS meetings to bring industry and commercial entities together with space weather professionals, especially engineers and technical people.

The American Geophysical Union (AGU) has long had an interest in the more basic science aspects of space weather. AGU meetings have, in recent years, increasingly focused on scientific cause-and-effect issues and have sought to improve the scientific underpinnings of space weather modeling tools. The transition of improved models and forecasting techniques to the user community has also been a major characteristic of AGU sections and focus groups. What has been missing in recent times from the AGU agenda has been the kind of policy guidance on space weather that AMS has now provided. We strongly urge that AGU step up—along with other relevant professional societies—to state clearly and articulately why space weather is important, what needs to be done to better include the industry-academia partnership, and how

government should improve its function to serve this key societal need.

The AMS understands very clearly and deeply the issues of alerts, warnings, and forecasts for space weather based on its long experience in tropospheric weather. The AGU should by its nature be more engaged in basic research aspects and in research-to-operations. The AGU journal *Space Weather* does cover important and relevant policy issues, as well as technical content. However, all professional organizations, such as AMS and AGU, which provide forums for the exchange of scientific knowledge, need to work together to properly steer policy debates and to effect good policy outcomes.

In times of very constrained federal research dollars and in times of considerable political dissonance, it is more important than ever to have a clear policy direction for the nation. AMS and AGU each have unique roles to play in the policy forum concerning space weather. AMS has done its first duty in this regard. AGU should now similarly step up. Both societies should move beyond defining the issues to true and intense advocacy for the kinds of federal emphasis and budgets that were recommended in the recent National Research Council Decadal Survey “Solar and Space Physics: A Science for a Technological Society” (http://www.nap.edu/catalog.php?record_id=13060).

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