

AMS Meeting Theme
New Orleans 2016

Earth System Science in Service to Society

The primary idea that motivated the words above is to bring the many parts of AMS into a common theme. The “Earth System Science” theme emphasizes that the growing knowledge of the academic and research communities about our Earth system is a strength of AMS. AMS brings together the physical, chemical, and biological study of the Earth, allowing important decisions to be made by policy makers and the public. An example of the physical domain was the forecast of Hurricane Sandy, which was predominantly atmospheric and ocean model driven. An air quality forecast would exemplify the chemical and physical domains. The fate of global carbon illustrates the overarching importance that includes physics, chemistry, and biology. All of Earth’s biology participates in the carbon cycle, in which the chemistry of the ocean and atmosphere is of crucial importance, and which are controlled by the physical ocean and atmosphere. The Earth system also includes the human-centered “domains of action”: (1) Observing, (2) Analysis and research leading to understanding, (3) Modeling and prediction, and (4) Social sciences – how people deal with Earth. The AMS integrates these different disciplines in a common intellectual and operational framework with an Earth system emphasis – I believe that the AMS is the scientific society where the whole Earth System fits most comfortably.

The second half of the theme title connects research to the benefits that society *writ large* gains from our science. “Service to Society” includes

information services, such as operational weather prediction, provision of timely and accurate weather literally at our fingertips, and scientific assessments such as the Intergovernmental Panel on Climate Change that help guide society's actions. It also includes the growing climate services from programs like NIDIS and the efforts to help society mitigate and adapt to climate variability and change. "Service to Society" explicitly evokes the integrated and complementary government and commercial enterprise that the AMS has done so much to foster over the last decade. The strong AMS contingent of media professionals – the people who stand before TV cameras and explain what the coming storm will do – are surely at the forefront of serving society, as are the critical efforts of the National Weather Service and military weather services. "Service to Society" also effectively uses social science to make the benefits and dissemination of our information most beneficial to the public. This meeting will address the effort to improve communications of geophysical threats to the public.

Finally – this theme conveys the flow inherent in the nearly 100-year history of the AMS. Some people call it research to operations (R2O), but I like to call it "Science to Service." AMS has a proud history of making a positive difference in the lives of our citizens by continually making the advances of science available to the public and policy makers. The 2016 meeting will bring these two great endeavors together.