

OPENING STATEMENT

Space Subcommittee Ranking Member Donna F. Edwards (D-MD)

Space and Environment Subcommittee Joint Hearing on
*“Exploring Commercial Opportunities to Maximize Earth Science
Investments”*

November 17, 2015 @ 10:00 a.m.

Good morning, and welcome to our distinguished panel of experts.

I want to start by thanking the Chairmen Babin and Bridenstine for calling this hearing on *“Exploring Commercial Opportunities to Maximize Earth Science Investments”*.

Earth observations support a myriad of applications to meet critical national needs, whether they be related to national security, weather forecasting, agricultural production, land use management, energy production, or protecting human health. Earth observations also support the scientific research and modeling that we hope can someday provide us with a comprehensive understanding of the Earth and its response to natural and human-induced changes.

The collection of Earth observations data has been enabled by sustained Federal investments—investments that I hope we will continue to sustain even in the midst of budgetary constraints.

Those investments have enabled the development of a robust “value-added” industry dedicated to turning Earth observations data into usable information that can benefit broad sectors of our economy. Then too, Federal investments in the underlying Earth observations technologies

and systems have resulted in capabilities that have enabled a growing commercial remote sensing industry to emerge.

So it makes sense to continuously look for new ways in which we can improve our ability to carry out Earth observations and maximize our Earth Science investments.

Today, we will explore the extent to which NASA might be able to leverage potential public-private partnerships to carry out its Earth Science research and support the applied uses of that research.

Truth be told, NASA has had prior experience in purchasing commercial Earth observation data. In the late 1990s and early 2000s, NASA initiated public-private partnerships for Earth science research including one for collecting ocean color data, called SeaWiFS. The results from those early projects demonstrated potential opportunities as well as challenges associated with such partnerships.

The complexities associated with such arrangements were noted in a number of studies by the National Academies of Sciences. For example, at least one of those studies noted that the intersection of scientific and commercial interests in public-private partnerships can pose significant challenges in attempting to meet the disparate requirements of stakeholders.

This is because scientists value the free and open exchange of scientific data; the precise calibration, validation, and verification of satellite data to ensure accuracy; and long-term stewardship of data for future research. However, that may not always be consistent with companies' business models.

In addition, it is clear that intellectual property issues related to licensing will need to be addressed, as will issues related to data management, data continuity, and calibration if effective partnerships are to be sustained.

So today, I am looking forward to hearing whether, in light of potential new commercial capabilities in Earth observation, there are productive ways that commercial systems can complement NASA's Earth observation data collection through the use of public-private partnerships.

And if so, what mechanisms should NASA use to determine the circumstances under which public-private partnerships can effectively support the agency's Earth science research and applications, and how should those partnerships be evaluated?

How can Congress ensure that potential public-private partnerships do not inadvertently restrict and constrain research in an effort to generate revenue for the companies?

And, are enacted policies and authorities that enabled the advent of commercial remote sensing adequate to address the future needs of both the Federal government and the growing commercial remote sensing industry?

Well, it is clear that there are many issues that need to be addressed, and we certainly are not going to be able to do any more than begin our examination of this important topic today. This can be a productive area for future hearings of the Committee, and I hope we will do continued oversight of this area.

I would also note that the National Academies upcoming Decadal Survey for Earth Science and Applications is also likely to address a number of these same issues, and I look forward to hearing the results of the Survey when it is done.

Finally, I would be remiss if I didn't note that we have long had an existing productive public-private partnership in Earth observations. The many contractors and suppliers who have built a formidable array of both civilian and national security Earth observations spacecraft and ground systems for NASA, NOAA, and other parts of the government are testimony to the long-standing commitment our government has had to making use of the skills and capabilities of the private sector. I have every confidence that that partnership will continue to be a productive one in the years to come.

With that, I again want to thank our witnesses for being here today, and I look forward to your testimony.