



COMMITTEE ON
SCIENCE, SPACE, & TECHNOLOGY
Lamar Smith, Chairman

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Statement of Space Subcommittee Chairman Brian Babin (R-Texas)
“Exploring Commercial Opportunities to Maximize Earth Science Investments”

Chairman Babin: Good morning. I would like to welcome everyone to our hearing today and I want to thank our witnesses for taking time to appear before the Committee.

Today’s hearing will explore opportunities for NASA to acquire Earth observation data through public-private partnerships, including commercial capabilities.

NASA’s Earth Science is the largest and fastest growing of all Science Mission Directorate programs. In the last eight years, the Earth Science Division funding has increased *by more than 63 percent*.

One reason for these budgetary increases is that NASA’s Earth science portfolio has expanded to include new responsibilities for the continuation of measurements that were formerly assigned to other agencies, including data continuity and application focused satellite observation programs.

For example, the President’s FY16 Budget Request redefines NASA and NOAA Earth-observing satellite responsibilities. Under the new framework, NOAA is responsible only for satellite missions that contribute directly to NOAA’s ability to issue weather and space weather forecasts while NASA is responsible for all other nondefense Earth-observing satellite missions. The near term impact of this revised framework includes the transfer of responsibility for TSIS-1 [pronounced Tee-SiS] (Total and Spectral Solar Irradiance Sensor), Ozone Mapping & Profile Suite (OMPS), JPSS-2 Radiation Budget Instrument (RBI), and future ocean altimetry missions to NASA.

Another example of increased NASA responsibilities is the Sustainable Land Imaging (SLI) program. In the past both USGS and NOAA have been responsible for development and operation of Landsat satellites. But now, NASA is responsible for three mission and development activities, including initiation of Landsat 9, along with a fourth activity to design and build a full-capability Landsat 10 satellite.

Given our constrained budget environment and NASA’s new responsibilities, public-private partnerships may offer an opportunity to lower costs and improve Earth observation data while fulfilling science community requirements, including data continuity.

Over the past decade, the United States private space-based remote sensing sector has made significant improvements in technology, products, and services. Leveraging commercial off-the-shelf technology, borrowing ideas from the information technology community, and developing innovative low-cost solutions with high performance outcomes, the private sector is demonstrating new capabilities that could be used to address many of NASA’s earth observation data needs.

In the past, Earth observations were associated almost exclusively with government-managed or government-sponsored projects. Today, commercial sources of Earth information are rapidly increasing in availability and scope. Commercial satellite systems are now reliable sources of high-resolution Earth imagery, and commercial remote-sensing companies have greatly expanded their offerings.

Technology is also changing rapidly. For certain types of missions, solutions can be built that are much smaller in size, much lower in weight, require much less power, and offer even greater data collection capabilities — at costs much, much lower than the current systems.

U.S. law and national policy directs NASA to advance the commercial space sector. Pursuant to the National Aeronautics and Space Act, NASA shall “seek and encourage, to the maximum extent possible, the fullest commercial use of space.” NASA is also directed “to the extent possible and while satisfying the scientific or educational requirements of the Administration, and where appropriate, of other Federal agencies and scientific researchers, acquire, where cost-effective, space based and airborne Earth remote sensing data, services, distribution, and applications from a commercial provider.”

A principle of the Administration’s United States National Space Policy is that “the United States is committed to encouraging and facilitating the growth of a U.S. commercial space sector that supports U.S. needs, is globally competitive, and advances U.S. leadership in the generation of new markets and innovation-driven entrepreneurship.” Both the 2014 National Plan for Civil Earth Observations and the 2015 National Space Weather Action Plan, as proposed by the Administration, direct Federal agencies to identify and pursue commercial solutions.

Given the great potential for public-private partnerships, NASA is unfortunately doing very little. NASA’s Earth observation program is the largest U.S. government civil remote sensing effort and perhaps the largest civil remote sensing effort in the world. NASA currently operates 26 Earth observation satellites, with 12 under development. However, none of NASA’s Earth observation satellites, either in operation or under development, are public-private partnerships.

NASA does have a program in place to procure commercial satellite Earth observation data under the 1998 Science Data Buy Program. But, the program has not been used by NASA for over a decade.

It is time for NASA to initiate constructive dialogue with the private sector to assess the viability of public-private partnerships for the provision of space-based Earth observation data to meet NASA program requirements. Our nation cannot afford to simply ignore the great potential of public-private partnerships to lower costs and improve the quality of earth observation data.

There are many important issues to be discussed at today’s hearing. I look forward to hearing the testimony of our distinguished witnesses.

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