



National Headquarters

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Dr. Stephen Volz
Assistant Administrator for Satellite and Information Services
National Oceanic and Atmospheric Administration
Department of Commerce

Dear Dr. Volz,

We write to you today regarding the National Oceanic and Atmospheric Administration's advanced notice concerning regulations for the licensing of private remote sensing space systems, on behalf of the 1.4 million members of Defenders of Wildlife who seek to conserve wildlife and the habitats they depend on everywhere. Defenders – like many conservation organizations and others outside of conservation – increasingly uses remote sensing data to inform wildlife conservation policy, implementation, and practice. Our use of these technologies to conduct analyses and create tools that provide new information to the public, and state and federal agencies will only increase in the future. Below we provide general comments, and then address specifically requested questions raised in the proposed rule.

General Comments

As remote sensing technologies become more ubiquitous and advanced, Defenders supports the safe, responsible deployment and operation of remote sensing systems by private parties. Such proliferation has the potential to generate innovative and creative solutions to many global challenges. *However, it is critical that an expansion of private remote sensing systems reinforces the United States' commitment to publicly funded remote sensing missions, and the free and open access to remote sensing data.* The commitment to these principles has proven invaluable to the nation and established the United States as a leader in the field of remote sensing.

Publicly available remote sensing data has become a critical part of current research in fields as disparate as economics and conservation and environmental science. The scientific community - including academic, public and private researchers - has been able to achieve rapid insights into the state and dynamics of Earth's biophysical systems using freely available Landsat data from U.S. Geological Survey (Global Forest Watch is one example), and the Sentinel remote sensing system from the European Space Agency. This unparalleled understanding of patterns of ecosystem changes, economic development, droughts, and disease outbreak has been used to shape effective environmental, economic, public health, and other public policies at local, national, and international scales. Ensuring that everyone has access to these data is imperative to ensure that the United States remains the clear world leader in the field of remote sensing.

Response to Specific Questions

How should Commerce define the statutory terms ‘private sector party’ and ‘private remote sensing space system?’

As users of remote sensing data, the most important distinction between public and private systems hinges on the availability of that data. Thus, public access to data collected by remote sensing systems could be one criterion on which this distinction is made. Parties providing open access to data could be considered public, and those requiring fees for data private. To maintain an incentive for investment and innovation, operators could retain proprietary rights to data derivatives and secondary products and remain a public remote sensing system – so long as the unanalyzed data is publicly available. Ideally these data—or at bare minimum, a directory of available data—would be maintained by a federal agency (National Oceanic & Atmospheric Administration, U.S. Geological Survey, etc.) to fulfil the public availability requirement. Following from this, a private sector party would be any party that is not a state or federal agency and that is neither operating a remote sensing space system on behalf of, nor providing public remote sensing data to such an agency.

How should Commerce categorize remote sensing systems?

The first major distinction should be between Earth vs. non-Earth imaging, given the different requirements for international logistical coordination and cooperation required by each type of mission. As data transmission and storage capabilities continue to expand, we are likely to see an increase in remote sensing systems that collect video data. Thus, it will also be important to distinguish between systems collecting video and those collecting static images alone. These two types of information present drastically different levels of risk and responsibility, with video collection systems likely requiring greater oversight. Relatedly, we encourage Commerce to work closely with technology experts in other federal departments and in the private sector to fully evaluate the ground-based infrastructure requirements of satellite video, which, with huge data volumes, could stress existing internet systems. This aspect may suggest additional categories.

Finally, within these major categories, the spatial and temporal resolution of images and videos should also be used for categorization. These characteristics have a direct relationship with the level of insight, privacy, and security considerations retrievable from a remote sensing system and are therefore a primary concern. A reasonable set of thresholds for delineating categories according to resolution would be the capabilities of publicly available systems (e.g., Landsat). Those systems collecting data at the same or lower temporal and spatial resolutions provide no more information and no greater potential risk than what is already publicly available.

How should Commerce add/modify/remove licensing conditions?

We strongly recommend that sections 960.11b(6-10) should be maintained, as they provide for the ability of the U.S. government to preserve and re-distribute unenhanced data produced by private remote sensing systems. The most important case is the preservation of data that is about to be deleted. Finally, the manner of satellite disposal should be determined by an agency with dedicated expertise in remote sensing, rather than in an ad hoc manner from the Office of the President.

In summary, we support updates to the regulations governing the licensing remote sensing space systems if they support the time-tested successes of publicly available satellite remote sensing data. This has been critical to enabling new and efficient means of wildlife conservation, providing new insights into how the world works, and spurring economic development in the United State and around the world.

We appreciate your time in considering our comments, and we are happy to discuss any relevant topics further if you are interested.

Sincerely,

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