

**Written Testimony of**  
**Michael Steven Dodge, before the**  
**Committee on Science, Space, and Technology, Subcommittee on Space, of the United**  
**States House of Representatives**  
**September 7, 2016**

Chairman Smith, Subcommittee Chairman Babin, Ranking Member Edwards, and Members of the Subcommittee: I'd like to thank you for inviting me to participate in the hearing on "Commercial Remote Sensing: Facilitating Innovation and Leadership". It is an honor to be invited, and I offer some thoughts on this timely topic in my testimony below.

On the state of remote sensing law & policy:

The purpose of this hearing is to examine the space-based remote sensing industry in the United States, including scientific and technological developments, as well as current remote sensing applications. The hearing is to examine these issues with a view towards the current law and regulation governing private remote sensing systems, and will investigate whether changes to law or regulation are warranted. To this discussion, I am pleased to comment on the role of policy, regulation, and law in enhancing the success of the United States remote sensing industry.

Extant commercial remote sensing law and regulation has served the United States, and its commercial interests, quite well. However, the current system is no longer ideal for either the Federal Government or industry, and changes to the nature of technology and business over the years since the Land Remote Sensing Policy Act of 1992 have generated new opportunities that can be successfully exploited with regulation that more fully conforms to the spirit of the

National Space Policy, as well as NSPD-27—more commonly known as the U.S. Commercial Remote Sensing Policy.<sup>1</sup> Indeed, the laws or regulations respecting space-based private remote sensing systems stand ready for change, because, although generally effective in supporting the needs of both the Federal Government and the industry, they nevertheless often cause unintended negative consequences for industry participants. In particular, complaints have been lodged that the system, in its current instantiation, has caused unnecessary obstruction in licensing of certain data, such as sub-meter resolution imagery, and even substantial delays in action on applications for the sale of data.<sup>2</sup>

Possible change to the current legal status is no cause for consternation. Indeed, there is a strong, thoughtful, and growing history of law, regulation, and policy governing private remote sensing in the United States. To that end, if changes to the law or regulations are deemed necessary, they will likely respect the extant system, evolving in ways beneficial to both the United States Government, as well as the private entities engaged in the remote sensing industry. The current policy and legal structures provide ample room for changes to be made that reflect the realities of the modern remote sensing industry, and I believe that should modifications to the current system be crafted—in law or regulation—they can emerge from current structures.

The Land Remote Sensing Act of 1992 is itself a reflection of congressional efforts at identifying the appropriate roles for government and industry alike, with its ancestry including the 1984 Land Remote Sensing Commercialization Act.<sup>3</sup> Congress demonstrated sensitivity to the realities of the commercial market in replacing the 1984 Act with the 1992 law, and,

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<sup>1</sup> U.S. Commercial Remote Sensing Policy, *available at* <http://www.nesdis.noaa.gov/CRSRA/files/Commercial%20Remote%20Sensing%20Policy%202003.pdf>

<sup>2</sup> Letter from Brian Babin, Chairman, Subcommittee on Space, Committee on Science, Space, and Technology to Penny Pritzker, Secretary, U.S. Department of Commerce (June 6, 2016) (on file with author); *e.g.*, the multi-year delay in according a decision to DigitalGlobe on their desire to sell high definition infrared imagery data from the shortwave infrared sensor (SWIR) on its Worldview-3 satellite.

<sup>3</sup> Land Remote Sensing Act of 1992, Pub. Law No. 98-365, 98 Stat. 451 (1984).

arguably, the time may have come to revise current statutes once again. This could be done either by replacing the 1992 Act with a modern incarnation that better reflects the needs and interests of all the interested parties, or it could be done with clarifying amendments. If this solution proves too far for current congressional interest, the current system can still be improved with attention to the regulations in 15 CFR Part 960, renovating, where necessary, to assist with concerns such as more rapid response to license applications<sup>4</sup>, as well as reforming and, when possible, speeding the process of inter-agency review of matters that require input from the Department of Defense or the Department of State under 51 USC § 60147(a) & (b-1). No matter what changes are proposed, the Departments of Defense and State should maintain their consultative role with the Department of Commerce, in no small part because of the reliance by the United States Government on privately acquired remote sensing data, as well as the continued truism that the United States is one State among many—and thereby bound by its international obligations. The role of these agencies remains clear, although the process can potentially slow down industry efforts.

Another welcome change to current regulation would be in more effective enforcement of standards already in place. For instance, one recent example of regulatory disappointment is NOAA's substantial delay in deciding on whether DigitalGlobe should be allowed to sell high-resolution infrared data obtained from the WorldView-3 satellite. This application has been outstanding for more than three years, despite both statutory<sup>5</sup> and regulatory<sup>6</sup> requirements that, at the very least, require a decision by the Secretary within 120 days—or at least an explanation to the applicant of any issues surrounding the application that require addressing. While an

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<sup>4</sup> 15 C.F.R. § 960.6.

<sup>5</sup> 51 U.S.C. § 60121(c).

<sup>6</sup> 15 C.F.R. § 960.6(a).

exceptional example, this nevertheless demonstrates that the current regulatory scheme can result in lengthy (and, for the private entity, potentially costly) delays that surely do not align with the intent of law or policy<sup>7</sup>.

Recent legislative efforts have reinforced the notion that the role of government should adapt to benefit the needs of the private remote sensing industry. As an example, Title III of the U.S. Commercial Space Launch Competitiveness Act requires the Office of Space Commerce foster the “conditions for the economic advancement of the United States space commerce industry”<sup>8</sup>; indeed, this provision helps to demonstrate the need for legal and regulatory clarity vis-à-vis commercial remote sensing. Moreover, the provision lends credence to utilizing clearer, consistently applied regulatory work for commercial interests. This philosophy is supported by United States policy, including the National Space Policy<sup>9</sup> as espoused by the Executive Branch and the U.S. Commercial Remote Sensing Policy, which note that the success of the commercial remote sensing industry is not only desirable, but closely linked with increased national needs—including strengthening United States national security. It should be emphasized that, in most instances, there need not be friction between promoting commercial success and protecting national security, and that the two can and often do complement one another.

Yet another concern that could be mitigated by congressional action is in maintaining a technological and economic edge over foreign competitors. United States policy is to maintain the most advanced and effective commercially produced remote sensing systems available, and

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<sup>7</sup> The U.S. Commercial Remote Sensing Policy states, as a policy goal, that the United States Government will “provide a timely and responsive regulatory environment for licensing the operations and exports of commercial remote sensing systems.”

<sup>8</sup> U.S. Commercial Space Launch Competitiveness Act, Pub. L. 114-90, 129 Stat. 704 (2015).

<sup>9</sup> National Space Policy, *available at* [https://www.whitehouse.gov/sites/default/files/national\\_space\\_policy\\_6-28-10.pdf](https://www.whitehouse.gov/sites/default/files/national_space_policy_6-28-10.pdf) (Principles: “A robust and competitive commercial space sector is vital to continued progress in space.”)

yet much has been made of foreign systems absorbing a sizeable share of the market in recent years.<sup>10</sup> Increasing the responsiveness of the regulatory machinery may provide partial redress to this limitation, which in turn could provide greater opportunity for U.S. private remote sensing entities to compete more effectively with foreign companies.

Finally, clarity, be it in regulatory reform, or by modification of the 1992 Act, helps the United States to fulfil its longstanding public international law obligations under certain key provisions of the Outer Space Treaty. In particular, Art. VI requires authorization and supervision of the State Party to the treaty for all its non-governmental entities acting in space. In the current system, licensing can serve as the requisite authorization. Knowing when to license, and, in colloquial terms, changing the presumption of licensing new technologies and available data resolutions to “yes”, rather than “we will see”, will both promote the success of an industry struggling to keep up or, in some cases, catch up, with international competitors, as well as provide a clear statement to the international community that the United States intends to continue following its Article VI obligations through a more consistent and transparent process. This does not mean that the Departments of Defense and State should no longer be involved, but rather that the presumption should be in favor of allowing industry to develop and utilize novel and increasingly useful technologies that have, at times, been stymied by current regulation.

In conclusion, Congress has often acted early and efficiently to maintain United States leadership in private remote sensing, whether by codification or regulatory effort. Both domestically and internationally, developments in technology and the global economy have continued to morph since the passage of the Land Remote Sensing Act of 1992. If Congress chooses to act on updating or clarifying the law or regulations, it should do so with an eye

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<sup>10</sup> Mike Gruss, *House Panel wants answers on DigitalGlobe Licensure Delay*, <http://spacenews.com/house-panel-wants-answers-on-digitalglobe-licensure-delay/>.

towards maintaining its close relationship with the private remote sensing industry, as proposed by the U.S. Commercial Remote Sensing Policy.<sup>11</sup> Certitude with respect to requirements for licensing and operation should be the benefit of any changes to come, and would serve to assist both the private industry and the Federal Government. Further, continued attention to and revision of the current regulatory regime will serve to reinforce international perception that the United States is maintaining its obligations under international law—most especially the Outer Space Treaty’s Article VI.

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<sup>11</sup> U.S. Commercial Remote Sensing Policy Sec. II “In support of this goal, the United States Government will...Develop long-term, sustainable relationship between the United States Government and the U.S. commercial remote sensing space industry.”