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Lamar Smith, Chairman

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Statement of Space Subcommittee Chairman Brian Babin (R-Texas)

The Commercial Space Launch Industry: Small Satellite Opportunities and Challenges

Chairman Babin: The commercial space industry truly is an amazing industry. It generates hundreds of billions of dollars of economic activity, serving both the private and public sector, all while pushing the boundaries of innovation and fostering the United States as the global leader in space.

Part of this innovation is a new space "spin-in" phenomenon. Computer, data analytics, and IT technologies having their origin in our space program but more recently developed outside of the space sector are being re-applied for space-specific purposes. Significant research and development investments are also being made in the United States to create and manufacture new types of small satellite technologies and applications.

One of the largest barriers that small satellite companies face is the cost of launch. Launch often accounts for a significant portion of a small satellite's overall mission cost. Recent government incentives for launch vehicle development may allow small satellite operators greater access to space. New launch vehicle test flights present great opportunities for small satellite operators to launch secondary payloads, if companies were willing to accept the primary payload schedule, mission profile, and mission risk.

The development of a small satellite industry is also attracting investment for a new class of launch services to serve the specific needs and requirements of smaller satellites and associated on-orbit constellations. A number of American companies, in various stages of development, plan on offering dedicated launch services to the small satellite industry in the next few years. These companies hope to fulfill the unmet demand of the small satellite market. They also promise to provide more flexible launch services such as delivery to unique orbits and rapid replenishment.

There is a lot of change going on in the small satellite and launch services industry. Winston Churchill once said, "There is nothing wrong with change, if it is in the right direction." From my point of view – the investment and innovation occurring in the small satellite and launch industry is good for America and is an important step in the right direction.

But change often presents both challenges and opportunities. Companies are seeking to supply the demand for greater small satellite launch capability in many unique and innovative ways. Some solutions carry more risk than others. Some solutions are easier to implement than others. Some solutions require government action, and some do not. Today's hearing gives us the chance to explore these challenges and opportunities.

One policy challenge is excess intercontinental ballistic missiles (ICBM) motors. It is long-standing national policy that excess U.S. ICBMs or their components should not be used for commercial launch services. This policy is established in the 1998 Commercial Space Act and reiterated in the 2013 National Space Transportation Policy, which states: "Excess U.S. ballistic missiles [or their components] shall either be retained for government use or destroyed," and that departments and agencies may use them on a "case-by-case" basis. But should this policy be changed to allow greater use of excess

ICBM motors for commercial launch services? This isn't a black-and-white issue and the policy outcomes associated with either keeping or modifying existing policy will create winners and losers.

Those in favor argue that many U.S. small satellites have launched on Russian DNEPR vehicles, derived from Russian ICBMs, and that by modifying existing U.S. policy, U.S. launch services could compete with Russia and bring this business back to America. Those in favor also argue that there is a cost to the taxpayer associated with storing excess ICBMs. By allowing the U.S. commercial launch industry to use excess ICBMs, you not only lower the tax burden, but also create potential revenue derived from the sale of these motors.

Those that oppose the policy change raise legitimate concerns that allowing excess ICBMs to be used for commercial launch purposes could distort the market in the United States, undermine future investment, and delay innovations that are on the horizon.

Access to foreign launch services is also a policy challenge for the U.S. small satellite industry. I've heard from a number of companies that build and operate small satellites that there isn't enough capacity in the market at a price they can afford to meet their needs. India has stepped in and offered to fill, in part, this demand and is launching smaller U.S. satellites on their PSLV vehicle. The Administration has provided a number of export waivers – on a case-by-case basis - for these launches, in part because India is becoming a strategic ally in South Asia. Unfortunately, the Administration seems to lack a clear long-term policy to guide access to PSLV launches. What should U.S. policy be with regard to Indian and other foreign launch vehicles?

Another factor that may impact the small satellite market is reusability. We all watched with great awe the accomplishments of Blue Origin and SpaceX when they launched and recovered their first stages. ULA and Ariane are now planning partially reusable systems as well. Will partial reusability of launch systems lower launch costs significantly and be the panacea for small satellite operators? Will they be able to overcome many of the past issues with reusability such as refurbishment and maintenance costs? Only will time will tell, but I'm excited about these recent transformative developments.

Finally, are there any artificial government barriers to expanding opportunities for secondary payloads, hosted payloads, and ride-shares? Is there anything that can be done to assist in the aggregation of small satellites on larger vehicles so as to benefit from economies of scale? Are there technologies or policies that could allow for greater utilization?

There is a great deal of promise in the future of space. But if we fail to provide long-term solutions to the issues our nation faces, we may well lose our leadership in space. China stands ready to fill that leadership void at a national level. Russia and Europe will gladly fill that role from a commercial perspective once again. We must provide a competitive legal, policy, and economic environment or other nations will happily step up. This would lead to an eroded industrial base, decreased national capabilities, declining international influence, and the loss of a skilled workforce. I, for one, will not allow that to happen on my watch.

I look forward to learning more about these critical issues facing our commercial space industry and finding common ground and responsible solutions that meet the needs of our nation, grow our economy, and maintain our leadership in space.

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