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Strategic Space and Defense Conference

This year, Intelsat reached an amazing milestone in the commercial satellite industry—we launched our 100th satellite into orbit.

Over 40 years ago, with the help of a few brilliant pioneers and the leadership of the United States government, the creation of Intelsat literally connected the globe. Beginning with the launch of our first satellites in the 1960s, Intelsat played the leading role in the creation of the commercial satellite sector.

Throughout our history, we have developed new satellite technologies, opened new markets, and established many industry standards.

Today, Intelsat and the rest of commercial satellite industry remain committed to driving innovation and connecting the world.

To accomplish this, Intelsat manages a single transmission platform that fuses a fleet of 54 satellites, 8 teleports and 28,000 miles of fiber. This robust infrastructure delivers content QUICKLY, SECURELY and RELIABLY to almost anywhere on the face of the earth.

Our primary commercial business serves media and network services companies. However, our largest, SINGLE customer is the U.S. government, and we are proud to be the largest SUPPLIER of commercial bandwidth to the US military.

For decades, Intelsat, and the commercial satellite industry have formed a strong coalition with the military. Our shared mission is to transmit vital communications via satellite to our Armed Forces throughout the world.

Our technology has fundamentally changed the way the military carries out its missions. Several programs on our fleet today illustrate the power of combining our technology with modern warfare strategies.

For instance, commercial satellite capacity powers the Global Hawk and Predator UAVs, successfully achieving objectives WITHOUT risking pilots' lives.

Our satellites also provide life line communication between warfighters and decision makers at bases in Europe and in the US, quickly delivering mission-critical information between posts.

Commercial satellites also deliver rapid access to bandwidth to nearly any point on Earth. Our satellites transmit large data files TO and FROM the battlefield, providing our troops with information superiority THAT SAVES LIVES.

Each of these examples is a demonstration of the powerful partnership that has developed between the satellite industry and the military. Together we have worked to address the demanding requirements of today's Armed Forces.

HOWEVER, changes in our work environment challenge the status quo.

Regional conflicts have expanded the military's demand for capacity. Competing for this SAME capacity is an explosion in bandwidth requirements, driven by economic growth in developing nations. Our coalition must adopt new strategies—with actions from both sectors—in order to continue to accomplish our mission.

Today I would like to talk to you about three things:

First - Understanding our common challenges and how we can overcome them;

Second - Implementing new approaches to improve the security of our space communications; and

Third - Identifying actions that can strengthen our partnership and ensure the military's continued access to commercial satellite technology...WHERE and WHEN you need it..

So let me get to my first point. Although some would see our worlds as very different, I argue that they are alike. Commercial and military satellite operators face many of the same challenges.

Today, military budgets are stretched thin, and it is clear that there will be additional constraints surfacing in the future. On the commercial side, the realities of competition and the changing marketplace dictate that supply must be tied as closely as possible to demand.

We must be responsible with each new investment we make and ensure it is in the best interest of our stakeholders. Similarly, the DoD must prioritize its initiatives based on the federal funding it receives. Given these financial pressures, both sectors have to work smarter and better AND leverage common investments where we can.

Another commonality rests with our supply chains. Government and industry rely on a relatively thin pool of satellite manufacturers and launch service providers.

We, at Intelsat, have done our best to use our industry leadership position, scale, and global reach to encourage new launch providers and spacecraft manufacturers.

In the same vein, new government R&D investments and creative programs, such as the JCTD, seek to encourage private innovation. These programs are essential in expanding the supplier base. It's increasingly expensive to get to space, but we are working together to lower the cost barrier.

Another common challenge that we face is the need to incorporate new technology and to respond to rapidly changing demand, while at the same time maintaining legacy services.

Our assets can remain in service for up to 18 years—and some of our satellites are even old enough to vote! It's not unusual for us to host

cutting-edge technology, and to be frank, not so cutting- edge, on the same platform.

This requires us to synchronize the deployment of ground terminals with new satellite capacity. The military faces similar challenges in managing the transition between generations of technology.

Although satellites get all the attention, the deployment of new ground infrastructures are often the more complex and expensive pieces of the puzzle.

Innovation in the ground segment holds significant potential for capability enhancements. This can provide more efficient global communications, freeing bandwidth for customers such as the military.

Finally, cyber security is another challenge we both face. It has been reported that Russia, in advance of its entry into Georgia, used a cyber attack to disrupt the Georgian information networks. This highlights the risks that must be addressed in safeguarding our infrastructures.

I think it is clear that security issues will dominate much of the future government and industry dialogue. We should never underestimate the power of technology. BUT, we MUST anticipate that our adversaries may adapt and innovate that same technology to their own benefit.

Clearly, this is a shared challenge: the advance of technology results in risks that are difficult to identify, and even more difficult to mitigate.

Some argue that, given these risks, ONLY protected military satellites should be trusted to provide military communications. I disagree. In fact, commercial satellites have successfully served the military for decades, and today provide over 80% of the bandwidth used by soldiers in the field.

In my business, with billions of dollars of assets located 22,000 miles away, we spend a lot of time implementing programs to reduce risk.

For instance, we automate satellite commands to reduce the risk of human error.

We buy satellites from different manufacturers to reduce exposure to systemic part failures.

However, the greatest element of our risk mitigation, is the scale of our system.

One of the strengths of the commercial satellite industry is its ubiquity. Industry-wide, we fly nearly 200 communication satellites. This provides unmatched path diversity and resilience in the sky.

Commercial companies have already made important investments in technologies such as command encryption, improved geo-location, and anti-jamming controls. This prepares us to defend from purposeful interference and ground infrastructure attacks.

Addressing technology risk is a challenge for you as well. Some programs are dependent on large and expensive satellites which cannot be replaced quickly if compromised.

Not surprisingly, those within the Defense Department and Congress, whose job it is to worry about emerging space threats, have begun to express concern.

A communication system based on a few complex, expensive assets is, by definition, vulnerable. In this case, the loss of even one satellite could gridlock vital communications. However, a system based on many capable assets is much more difficult to compromise.

The solution? We should collaborate closely on our technology-risk-strategies. With the appropriate dialogue and commitments from the government, commercial operators can amplify their investments in DoD-focused security measures. This will mitigate operational risks for commercial and military applications alike.

[PAUSE]

So, we share a number of challenges.

Throughout my career, I have put together many partnerships. Without exception, the most powerful partnerships are those based on a foundation of shared purpose.

And on that foundation of shared purpose, I would like to introduce my second point .

Space is increasingly important to the global communications infrastructure. As a result, we MUST join forces to protect space assets by improving space situational awareness.

Today, most commercial operators rely on the Air Force Space Command's "J-SPOC", for tracking man-made objects and debris in orbit. The "J-SPOC" receives satellite position data from the global Space Surveillance Network.

Like all parts of the Pentagon budget, funding for expansion to the Space Surveillance Network is under pressure. Yet, the need for better space "situational awareness" continues to grow as space becomes increasingly crowded.

Rather than develop and launch dedicated assets to address this problem, the Air Force could consider launching low-cost sensors on every commercial satellite that is launched.

By including commercial satellites in this endeavor, it would be possible to obtain a holistic view of the space environment in a few years, in a cost-effective manner...ON TIME and WITHIN BUDGET.

Intelsat alone has 5 satellites currently under construction.

Imagine the improvement in our space awareness if every satellite launched over the next 5 years was part of an integrated, global monitoring system.

[PAUSE]

So far today, I have discussed our mutual challenges, and the opportunities to address them by working together.

However, given the dramatic shifts in technology and the global demand for bandwidth, I believe there are steps we must take to strengthen our coalition as we move forward into the future, and THIS is my third topic.

The ability to respond rapidly to evolving bandwidth needs is a hallmark of the commercial satellite industry. We frequently partner with committed customers to deliver new in-orbit capacity in as little as 30 months.

In the past, Intelsat has re-positioned beams—or even moved entire satellites—in a matter of weeks, to deliver new critical bandwidth to the military.

However, we've also seen a tremendous increase in the demand for capacity. Industry-wide, fill rates are reaching their highest levels in many years.

Against that backdrop, it's important to recognize the shift that has taken place in the way the commercial sector does business.

Satellite companies no longer enjoy the luxury of building on speculation. That seat-of-the-pants planning approach ultimately turned out to be disastrous, bankrupting several satellite companies. Capacity provisioning is now much more tightly coupled with market need.

That doesn't mean that the industry isn't willing to invest. This year, Intelsat alone will spend half a billion dollars in new satellite programs.

Over time, our investments have achieved leaps in technology and capacity – but given the lessons of the past, we have learned to look BEFORE we leap.

And let me define “look”: We plan our business in 18-year increments. That's the expected lifespan of a satellite being launched today.

In contrast, by and large, the DoD still buys commercial service in one-year increments. You've heard the operators say this before, but this acquisition approach makes it nearly impossible for commercial operators to plan new capacity based on specific DoD requirements.

Much of the building in the commercial sector today is focused on meeting the needs of legacy customers and pre-committed buyers who frequently contract for the life of the satellite. It is not uncommon for new commercial satellites to be 80% sold before reaching orbit. This often leaves little for the DoD to buy.

Rather than just complaining, how can we change that picture? Let me offer two concrete suggestions:

First, just as with space sensors, the DoD should take advantage of commercial platforms. Every commercial satellite going into orbit creates opportunities for a technology test bed, or the deployment of operational capability.

The Intelsat and CISCO “Internet Router in Space” program, known as the IRIS hosted payload, is a good example of this approach.

The IRIS program uses a scheduled commercial payload—the Intelsat 14 satellite—AND serves as a test bed for CISCO space-based internet routing. The net result is a technology test-bed and new operational capabilities deployed in a time-efficient, cost-effective manner.

My second suggestion is for the DoD to revise how it plans for and buys commercial satellite services. If ASSURED ACCESS is a DoD objective, there ARE ways for the commercial industry to provide it.

To do so, we will have to be innovative in financing and contracting to encourage long-term private sector investment for DoD capabilities. Most of the military’s commercial satcom services are paid for through Supplemental Funding. A practical first step would be to start budgeting for their future commercial comms needs, today.

With a long-term relationship in place, the commercial sector can offer DoD-unique capabilities on its payloads, such as steerable and flexible beams that can be re-pointed to accommodate changing areas of interest. And it's not just commercial operators who see a need for change.

This year, the House and Senate Authorization Bills conveyed their clear anxiety over a potential future gap in essential bandwidth.

UAVs, surveillance and reconnaissance systems, and major programs such as the Army's Future Combat System... all place huge demands on existing and planned military assets.

The Senate Authorization Report notes that there appears to be a disconnect between the bandwidth requirements of major systems ... AND the ground and space systems needed to meet those requirements.

I believe that increased dialogue and a multi-layered partnership between the Defense Department and the commercial satellite industry is the best way to close this critical gap.

In conclusion, I would like to re-emphasize the fact that commercial and military satellite operators have had a long and productive partnership. But we can make it stronger and better.

We have to overcome barriers that prevent us from responding to challenges in a true partnership fashion. At a minimum, let's:

Take advantage of the commercial platforms going to space, which can successfully augment the military's satcom needs in a cost effective manner;

It's VITAL to address security issues as a team, AND

Let's develop innovative acquisition procedures to ensure that you have access to critical capacity ANYTIME and ANYWHERE.

Our goal is to build an increasingly powerful partnership with you, our largest customer.

Thank you for sharing our passion for the vital role that satellite communications can play in achieving the military's vision, and thank you for your time today.