DISA Needs an ASSIST

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The U.S. Defense Information Systems Agency (DISA) recently released a request for information focused on procuring Assured Satcom Services in Single Theater (ASSIST). The program, as described, would enable DISA to purchase a large block of satellite capacity (Ku- and Ka-band) to help augment and replace the more than 5 gigahertz of commercial space segment currently leased for U.S. Central Command in Southwest Asia. Those needs have gone unmet by military satellite communications for over a decade, and given the cancellation of the Transformational Satellite (T-Sat) program and pending Department of Defense (DoD) budget cuts, those needs are unlikely to be met by milsatcom assets at any time in the near future.

Unfortunately, members of Congress managed to cut the program this month during the House Armed Services Committee mark-up of the defense authorization bill. Congress also moved all funding for the ASSIST program from DISA to the Air Force's Wideband Global Satcom program. The committee report language further stated that it would hold back 80 percent of the ASSIST funding until the Defense Department produces the usual yearlong "independent assessment" of alternatives. I fear that in doing so, the committee has effectively killed, if not severely wounded, the ASSIST program and has ensured that DoD will continue business as usual.

One bright spot in the committee's mark-up was its language in support of commercial satellite hosted payloads — a concept heralded by the satellite industry for years and embodied fully in the ASSIST program lawmakers cut in the previous sections of the report.

In an encouraging show of outside-the-box thinking and in accordance with National Space Policy, DISA managed to overturn the traditional comsatcom vs. milsatcom paradigm in favor of a hybrid approach — buying commercial satellite services that are built with DoD needs in mind. ASSIST was designed to leverage the best of both communities — the commercial satellite industry's ability to move quickly and deliver capacity on orbit in 24 to 36 months, and the DoD's ability to commit to a huge block of capacity for the long term. Further, ASSIST was keenly crafted to avoid burdening the development of what would have been DISA's first commercial satellite with the usual DoD requirements (low probability of interference or low probability of detection, and nuclear hardening) that turn milsatcom satellites into "Battlestar Galactica"-sized programs that take 10 years and billions of dollars.

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While milsatcom lead times can be measured in decades, commercial satellite delivery cycles can be measured in months. Commercial satellite operators and manufacturers tend to move more quickly to place capacity in orbit than their milsatcom brethren. This can be tied to several factors, but perhaps most significant is that commercial satellites tend to be more "cookie cutter," have almost zero unproven technology on board, and thus often go from inception to in orbit in less than 36 months. For DISA to meet the rather aggressive timeline of having a substantial new capability in orbit by December 2014, it is encouraging to see the agency lean more toward the commercial satellite industry model with the ASSIST program.

For more than 10 years DoD has been leasing commercial satellite capacity on a short-term, annual basis. Rather than looking for long-term contracts, DoD has remained focused on hundreds of short-term leases, often through commercial service providers like Harris CapRock Communications. As a result of these short-term leases and the effects of global supply-and-demand market forces, DoD's costs have recently begun to skyrocket. Whereas we were paying $2,500 per megahertz for bandwidth in the early 2000s, Harris CapRock and our government customers are now facing prices in the $5,000 per megahertz range — a 100 percent increase in just a few years.

Today Harris CapRock manages a multi-gigahertz bandwidth portfolio similar in size to the DoD's. That capacity resides on more than 60 commercial satellites owned by 25 separate fleet operators. As a new combined entity, Harris CapRock now spends roughly $200 million per year on space segment — our single largest expense.

As the world's largest nongovernmental buyer of commercial satcom bandwidth, Harris CapRock understands very well the benefits of the ASSIST program and the challenges DISA is faced with.

Satellite operator fleets are nearly filled to capacity, with many satellites at 90 percent or more utilization. It is often very difficult to find whole transponders or even blocks of contiguous capacity on the same satellite. On top of that, most new satellites being launched by the major operators are simply designed to replace aging spacecraft rather than fill the gap. Incremental capacity that is being added to the orbital arc is often sold prior to launch. The impact of all of this constrained supply has been a dramatic escalation in bandwidth prices worldwide, particularly over the Middle East and Southwest Asia.

Recognizing that the conditions of scarce supply, increasing demand and escalating costs are not likely to change, DISA is attempting to develop a program with a fundamentally different approach to procuring satellite capacity. By moving into a new model of spacecraft "ownership" or long-term leases for unrestricted use of transponders over the life of the satellite, DISA will reap significant benefits relative to the historical approach of purchasing capacity on a "just in time" basis with one-year base period contracts. The approximately $450 million budget associated with the ASSIST program (roughly equivalent to what the DoD spends each year on commercial satcom) would purchase enough capacity in one program to offset 10 times that amount in commercial leases over the next 10 to 15 years.

Luckily, in recent years DISA has been quietly assembling all of the pieces it needs to help change the landscape for the DoD and to make communications plans and policies simpler for battlefield operators. Most importantly, DISA needs to provide the combatant commands, services and agencies with significant

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bandwidth expansion options and predictable operational cost models, combined with a set of systems that are efficient, off-the-shelf and compelling.

ASSIST is the last big piece of the end-to-end solution puzzle DISA appears to be creating.

Once the ASSIST program is fielded and entire space segment is in place, DISA will be fully capable of providing operational satcom managed network services, thus fulfilling a critical role for its customers. DISA is nearly ready to provide Central Command theater-wide satcom services on demand for critical customers. With the additional space segment that ASSIST will deliver, DISA will be able to provision the Ku-band capacity that is the life blood of unmanned aerial vehicles and also provide for enormous cost savings to programs like Combat Service Support Satcom whose commercial service providers continue to raise prices without necessarily delivering enhanced capabilities. Further, DISA would be the only managed service provider that could offer its customers that which all other commercial managed service providers cannot: Defense Information Systems Network on demand.

When completed, ASSIST will substantially reduce DoD's short-term lease addiction and refocus its efforts on managing commercial satcom resources more like a milsatcom asset or service. This program is a good thing for the warfighter, taxpayers and the satellite industry as it will ensure access to capacity, save money and free up short-term bandwidth resources for other commercial customers at lower prices.

Congressional and industry opponents of ASSIST need to seriously consider the benefits of this innovative approach before moving too quickly to quash a new way of meeting the DoD's communications requirements. The DoD doesn't need to build EVERY satellite it uses — aren't there enough examples to the contrary by now?

DISA is trying to ensure that all the DoD's satcom needs are met — protected and unprotected, short-term and long-term, fixed and mobile, stable and unpredictable. All it is asking for is a little assist.

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