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## Milsat or Commercial Sat?

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Other than the relatively small amount of satellite traffic that demands the highest levels of protection, how should the U.S. Department of Defense determine what traffic goes on the nation's military satellites and what goes on commercial? Is this something that should be planned? Or should it remain, as it is today, a more or less fluid process involving the hopeful convergence of military demand, commercial supply, and the availability of operation and maintenance dollars for leasing?

The question seems a timely one since the military is poised to significantly add to its own broadband satellite inventory.

One answer to the question can be found in the space policy recently released by U.S. President George W. Bush, which directs the government to use commercial services to the "maximum practical extent" and cautions that the government should develop its own systems when "there is no suitable, cost effective U.S. commercial system ... that is, or will be, available when required."

At points in the Iraq and Afghanistan conflicts, commercial operators were supplying more than 80 percent of DoD's requirement for satellite communications. So, current practice has been both successful and squarely within the policy guidance.

In Washington, however, the passion for writing policy documents seems to be inversely proportionate to our desire to follow said policies once documented. Hence, despite the success of current policy, some advocate change. They argue that the 80/20 split between commercial and military satellite communication (satcom) systems is "out of balance." But tellingly, they do not provide clear guidance for choosing the right balance.

There are many examples where DoD relies heavily on private infrastructure to meet critical military needs. For example, more than 95 percent of DoD's terrestrial traffic travels over leased fiber; no one has suggested that DoD should build a ubiquitous, global fiber optic system of its own, in parallel to the commercial systems widely available. To take another example (and there are many), nearly all soldiers are transported to the theater of operations on commercial aircraft leased under the Civil Reserve Aircraft Fleet program. These practices are widely regarded as successful and cost-effective uses of commercial infrastructure.

Some have argued that the issue is not the availability, but rather the cost, of commercial satcom. Recently, some senior military officials have stated publicly that an investment in military broadband satellites is necessary to reduce reliance on "costly commercial satellite systems." Given what DoD has spent on its military satellites, however, this is a bit like hearing the owner of a garage full of Ferraris comment on the high price of public transportation. Still, the DoD is probably the largest single user of commercial satcom, and therefore it has every right to know if it is getting a good deal.

A recent Defense Information System Agency (DISA) report argues that its contracting system is operating efficiently and that DISA often pays 25 percent below market rate for commercial bandwidth. If DISA is obtaining commercial satellite capacity at below market rates, then it would seem that others' characterization of this capacity as "costly" is off the mark. But then, "costly" is a rather imprecise measuring tool. My 88-year-old mother thinks pretty much everything is too costly, but my 16-year-old daughter has never met a price tag that she didn't like. The

question the senior military officials need to be asking is, "Costly compared to what?"

In beginning to sort out whether commercial satellite services are a good value, it is important to recognize that, with the exception of the Navy, no one in the DoD really budgets for these services. Over the last five years, during what has been the highest use of commercial satellite capacity, money for commercial satcom has come largely from the Defense supplemental appropriations process, and not from the annual budget process. This has had several important repercussions.

Because the services are relying on unprogrammed operation and maintenance funds, which are one-year allocations, it has given the government-satcom industry relationship an ad-hoc feel, in which commitments are made year to year at best. Such an approach severely inhibits private investment in future government focused capabilities, such as satellite capacity over key hotspots in the Middle East or Asia.

In addition, since commercial satellite spending has never, in any meaningful way, been included in the service budgets, this spending does not rise to the level of other service requirements and therefore does not compete with other priorities. This latter issue has become increasingly problematic as the wars in Iraq and Afghanistan have increased the pressure on the overall DoD budget.

Within the military, the responsibility has fallen (with some exceptions) to the Air Force to design, procure, launch and operate the military's satellite assets. As a result, the Air Force carries a heavy acquisition burden. But, from the budget perspective of the other services, the capacity of these assets, when developed, is essentially free. Whether this practice is sensible from a government budgeting and acquisition perspective can be debated, but it creates a difficult "fee vs. free" conundrum when a government user is comparing the apparent cost of commercial satcom vs. milsatcom. As a result, for the military user, it is often desirable to meet satellite communication requirements with military rather than commercial systems. This is true even when a more balanced rendering of the economic costs would favor commercial provision of those services.

All of this, of course, begs the real question: for traffic that does not require a high degree of protection, what is the more cost-effective approach for the government user — leasing a megahertz of commercial satellite capacity or buying a megahertz of capacity on a military satellite? Intelsat's analysis shows—after taking into consideration all relevant costs, including satellite costs, launch, operations, fill rates, commercial pricing and complete measures of risk—that commercial leasing is the less costly alternative.

Our confidence in this conclusion notwithstanding, this is a serious issue that requires the thoughtful attention of decision makers within DoD and Congress. We need to get everyone comfortable with the numbers, then tackle the truly hard job of creating a communications satellite procurement approach that most cost effectively meets the needs of our military commanders and troops in the field.

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