

AVIATION WEEK

& SPACE TECHNOLOGY

Still Lagging

Australian success shows U.S. bureaucracy is a big obstacle to hosted-payload launch

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Unwieldy U.S. military procurement continues to hamper the use of hosted payloads as a time- and cost-saving way to put sensors and relays into orbit, even with a hosted UHF link serving troops and sailors in Afghanistan and the rest of the Indian Ocean region.

That hosted payload on the Intelsat 22 bird belongs to the Australian Defense Force (ADF) and has worked well since its launch a year ago on a Proton. The ADF paid \$167 million for the 18 UHF channels and had them up and running less than three years after it signed the contract.

In contrast, when Intelsat 27 crashed into the Pacific Feb. 1, it took with it a second UHF payload reportedly built for—but never actually bought by—the U.S. Navy. So, as the Pentagon begins to absorb \$42.5 billion in sequestration cuts, it continues to creep toward routine use of hosted payloads at the same glacial pace typical of its other milsat procurements.

The latest bureaucratic setback came last September, when U.S. Air Force Maj. Gen. Robert E. Wheeler, the Pentagon's deputy chief information officer for C⁴ and information infrastructure capabilities, issued a highly restrictive guidance for procuring commercial hosted payload military satcom services that amounted to a slap in the face to commercial satellite operators who already sell the U.S. military services on U.S. military frequencies.

"The way that guidance read when it came out was very discouraging," says Don Brown, vice president of hosted payload programs at Intelsat General Corp. "It was discouraging for a couple of primary reasons—it didn't reflect the trust that the commercial industry has earned, and it was written in such a way that it tied the hands of the people throughout the U.S. Defense Department who were trying to find ways to save the taxpayer money using hosted payloads."

That includes the Air Force's Space and Missile Systems Center (SMC), which is on the verge of issuing a draft request for proposals for hosted-payload services. SMC has had a hosted-payload office for more than a year (*AW&ST* March 19, 2012, p. 36), and has conducted market research and an industry day for its plan to issue task orders on a broad indefinite-delivery, indefinite-quantity (IDIQ) contract to be called Hosted Payload Solutions (HoPS).

"It's a very intelligent approach, because it basically says we're going to solve some of the key issues in the master IDIQ, and then the technical details—are you flying a sensor or something else?—you can handle in the task orders," Brown says.

To ensure the IDIQ does not become snarled in the problems that could grow out of the Pentagon guidance, the satellite industry has opened a "dialogue" with Wheeler's staff, including one face-to-face meeting.

Phillip Harlow, president and chief operating officer of XTAR, says that initial meeting went well, but he concedes there has not yet been any substantive action.

"There are a number of things starting to align," says Harlow, whose company sells X-band capacity from two hosted payloads. "I would say that the policy piece coming out of the [chief information officer's] office is critical for getting all of these things to line up properly. So I'm spending a lot of time on the guidance, because I feel that's a very important piece of making this concept successful."

While the Pentagon lags, NASA is moving on a number of fronts to field payloads hosted on commercial communications satellite for Earth observation and technology demonstrations. The \$90 million Tropospheric Emissions: Monitoring of Pollution (Tempo)

mission will monitor air pollution hourly across North America from a piggyback perch on a commercial satellite. The civil space agency is working with SMC to develop hosted-payload procurement processes.

While conceding that "the hosted-payload approach will not work for all our observations," Steve Volz, of the agency's Earth Sciences Division, says, "it has the potential to play an important part on our mission to advance Earth system science."

Intelsat 27 carried an unsold hosted payload when it was lost in the Sea Launch failure last month.

Similarly, NASA's new Space Technology Mission Directorate plans to fly its Laser Communications Relay Demonstration as a hosted payload on a Space Systems/Loral bird, and it is still looking for a commercial platform to carry its Deep Space Atomic Clocks tech demo.

Innovative startups also are finding the hosted-payload model attractive, including GeoMetWatch. The Las Vegas-based company wants to fly its Sounding and Tracking Observatory of Regional Meteorology (Storm) hyperspectral imager on at least

six commercial communications satellites to provide 3-D storm tracking worldwide (*AW&ST* Feb. 25, p. 18). The company's first payload, already under construction at the Advanced Weather Systems Laboratory in Logan, Utah, will fly on an Asian platform in 2016.

Although the hosted UHF payload on Intelsat 27 was lost, efforts to market it to government customers before the launch failure were going well, according to Intelsat General's Brown. "We were seeing tremendous market interest in UHF service in the Atlantic Ocean region," he says. ☛



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