



## **Hosted Payloads**

### *Background*

- A hosted payload is a means to achieve an on-orbit capability through partnering on the overall mission. The most common discussion of hosted payloads is in the context of commercial hosting of a government payload; however, the points in this paper are applicable to any form of hosted payload scenario. The baseline hosted payload concept can be described as follows:
  - Hosting a payload is a means for the hosted payload owner and the primary payload owner to reduce through sharing the risk and required investment involved in placing their payloads into successful operation in the proper orbit;
  - Inclusion of a hosted payload may affect, to varying degrees, the satellite design, resulting in the addition of a new capability to the spacecraft, and is agreed upon prior to the launch of the spacecraft.
- The hosting of payloads permits the hosted payload(s) owner(s) and the primary payload owner to reduce the level of investment risk they each must face to place their respective payloads into successful operation;
- The hosted payload concept is not new or uncommon;
  - Hosted payloads are very common in the commercial satellite market;
  - The first U.S. government hosted payload flew on a commercial satellite nearly four decades ago.

### *SIA Positions*

- Hosted payloads provide a proven means for governments to obtain and deliver necessary space capabilities. Other proven approaches include traditional capital purchases, ride sharing, capital leases, multiple-year contracting, multi-year contracting, multi-year leasing, and traditional leasing;
- Hosting payloads is an option by which governments can leverage significant commercial investments in space infrastructure. This allows for the procurement of more affordable, resilient and time-efficient space capabilities that the government can depend upon and adapt as mission needs evolve;

- Hosted payloads should be considered as part of an overarching acquisition strategy which addresses capabilities required and focuses on delivering payloads to space in a steady, predictable manner. Such a strategy would have the benefit of more consistent payload production rates and permitting the government to allocate more of its finite resources on maintaining the intellectual capital needed to develop and maintain unique government capabilities;
- Procuring commercial hosting services leverages the highly competitive commercial satellite market while also supporting the overall space industrial base;
- Hosted payloads can enhance existing capabilities, demonstrate new ones, or mitigate gaps when there are unexpected constellation challenges;
- Hosting payloads often requires:
  - Managing different decision-making timelines, funding mechanisms, and approval processes for host satellite and hosted payload teams to achieve the synchronized integration and testing of the completed spacecraft;
  - Establishing remedies for satellite production or launch schedule delays caused by either party;
  - Agreeing on operational control of the host spacecraft and its multiple payloads;
  - Accommodating the hosted payload mission's communication requirements;
  - Mutual agreement on the prioritization of hosted payload mission needs with respect to those of the primary mission;
  - Addressing national and international spectrum, cybersecurity, and other regulatory requirements;
  - Integrating the space and ground segment of the hosted payload with existing architectures.
- Hosted payloads are a proven option for providing on-orbit capabilities and offer several advantages. Increased usage of the hosted payload option will likely result in cost, schedule, and operational efficiencies.