



Smart Buying – Improving SATCOM Procurement

Introduction

- The satellite industry supplies much of the military's own space infrastructure and provides critical services to meet DoD's communications requirements using commercial capacity and networks;
- Both dedicated, military satellite communications and commercial capabilities are critical elements of the global communications grid and essential for national security, now and in the future;
- SIA takes no position on the appropriate balance of resources allocated towards military satellite procurement or commercial satellite services;
- However, SIA members agree that there are many avenues through which the DoD could improve its processes for buying military spacecraft and commercial capacity, services, and networks that would create both budgetary and schedule efficiencies;
- The following are general principles, and initiatives and observations specific to the acquisition of spacecraft and services, which SIA believes should be considered for implementation by the U.S. government:

General Principles

- Integrated Planning for DoD SATCOM: The DoD should develop and implement a process which considers all available satellite capabilities – including U.S. military, allied military, and commercial capabilities – to develop plans and strategies that best synchronize existing systems, projected capabilities, evolving operational concepts, mission parameters, and resources;
 - Integrated SATCOM planning would facilitate the acquisition of an optimal set of capabilities and promote the synchronization of effort across the various services, commands, and agencies with satellite, ground segment, or service acquisition responsibilities;
 - Integrated SATCOM planning would better enable planning and budgeting for the sustained reliance on both DoD-owned and commercial

satellite capabilities while recognizing that the optimal mix of capabilities may vary over time;

- Integrated SATCOM planning would give decision makers additional insight into government-wide requirements; similar requirements could be aggregated, yielding lower per-unit costs, whereas requirements which require unique features to achieve mission success could continue to be approached individually;
- Leverage commercial capabilities:
 - Procure capabilities commercially “to the maximum practical extent”, as required by the National Space Policy;
 - Increase utilization of commercial, off-the-shelf technologies;
 - Establish requirements that describe desired end-states rather than implementation methods;
 - Consider greater utilization of hosted payloads on commercial spacecraft;
 - Leverage the potential for allied partnerships to enable cost-sharing and facilitate coalition interoperability;
 - Invest in emerging capabilities that will drive long-term innovation;
- Improved contracting and communication: Satellite industry planning and timelines and government procurement practices and timelines can be brought into better alignment through a combination of enhanced informational exchanges and adjustments to procurement choices, such as:
 - Helping industry improve its understanding of future government requirements;
 - Pursue the flexibility required to make longer-term purchasing commitments, including multi-year acquisition approaches;
 - Stay attuned to commercial demand and risk profiles, including by discussing industry planning and fleet replenishment cycles, market trends and technology trends, and supply and demand dynamics;
 - Leverage the core competencies of various military acquisition organizations to execute actual contracts;
 - Provide acquisition mechanisms which preserve DoD’s ability to rapidly respond to unforeseen threats and serve to meet unique, “niche” needs of military customers;
- Increase program stability: The DoD’s acquisition responsibilities will be met more quickly and cost-effectively if requirements, budgets, and acquisition strategies and baselines are stabilized;
 - Requirements should be defined and stabilized prior to granting authority to proceed with the program;
 - Any desired capability upgrades should be planned for in advance, with defined decision points at which these options may be exercised;
- Refine information assurance processes:
 - The DoD should work with industry to identify threats and define acceptable risk profiles, rather than mandating specific implementations;

- The DoD should specify in advance how vendors' information assurance capabilities will be assessed and used during source selection.
- The DoD should preferentially select commercial suppliers who have invested in appropriate IA capabilities over those who have not, and be transparent about the process used for doing so.

Best Practices For Acquiring Military Satellites

- Select appropriate acquisition models for procurements so as to account for the risk levels borne by both industry and government;
 - Firm Fixed Price (FFP) contracting is usually most appropriate and effective when applied to programs with stable requirements that are clearly defined, and when risk profiles are well-understood;
 - Other contracting models are often more appropriate for the acquisition of large-scale, novel, and complex space system acquisitions and for most development programs;
- When deploying constellations of military satellites, utilize bulk buys with delivery schedules tailored to production cycles where feasible;
 - Acquisitions structured in this way create cost savings by enabling bulk buys of parts, enabling efficient use of production facilities and personnel, and reducing the likelihood of parts obsolescence;
 - Streamline testing processes and reduce redundant or unnecessary testing requirements wherever possible;
- Reduce timelines required to analyze test results and provide approvals to proceed with program work in order to reduce downtime during the RDT&E and Production phases of a program;
- Streamline reporting requirements - minimizing the data requirements included in the Contract Data Requirements List (CDRL) can reduce the administrative burden associated with DoD contracts while also reducing DoD costs;
- Establish polices that underpin a robust supply chain:
 - Implement export control reform to increase exports significantly - protecting the industrial base, driving greater economies of scale and fostering innovation;
 - Support reauthorization of U.S. Export-Import Bank;
 - Promote the synchronization of DoD technology investments and industry independent research & development programs.

Best Practices For Procuring Commercial Satellite Capacity, Services, and Networks

- Recognize the role played by commercial satellite capabilities:
 - Leased commercial satellite infrastructure, contracted end-to-end networks/systems, pre-pay and post-pay satellite subscription services, and the provision of commercially-manufactured ground equipment and

terminals now comprise a significant portion of the DoD's overall communications capabilities and architecture, represented in every service, COCOM, geographic and functional command;

- The DoD expects to rely upon such commercial satellite infrastructure, capacity, services, networks and ground equipment for a significant portion of its growing communications needs for the foreseeable future;
 - Despite DoD's planning to include a considerable commercial satellite element in its mid- to longer-term communications capabilities, funding for such commercial satellite infrastructure, services and equipment is budgeted only in the short-term, typically using operations and maintenance (O&M) and supplemental budgets;
 - Reliance on O&M and supplemental budgets creates a number of constraints, including limits on longer-term contract commitments, uncertainty in planning, and the possibility of termination of funding for an entire category of critical communications capability.
 - That long-term funding should include budget for both ground equipment and space capacity required to ensure military access to necessary satellite capabilities, as well as for ground and space assets needed to protect those services.
- Take advantage of new commercial capabilities as they become available, and consider measures to incentivize their deployment as appropriate;
 - The DoD should identify laws, regulations or policies that hinder its ability to acquire commercial capabilities using more beneficial contracting mechanisms, and seek to have those laws, regulations or policies changed;
 - Ensure the use of contract vehicles that support both baseline and surge/supplemental requirements and that include the flexibility to procure long-term and short-term solutions. The contracting process should also include sufficient competition and competitive intervals to optimize operational performance, engage emerging technologies, and gain fiscal efficiencies.