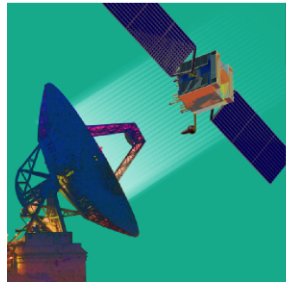


Working Group

Ground System Architectures Workshop



Session 11D

Cyber Impact of Hosted Payloads

Marke Beasley, Frank Belz, The Aerospace Corporation

Session Goals

- **Explore the cyber security and cyber resiliency aspects of missions with hosted payload(s)**
 - From the perspectives of both hosting and hosted mission
- **For hosted payload approaches**
 - What are the security challenges associated with Hosted Payloads?
 - What mitigations will address the security considerations / challenges?
 - What are the business / security risk trade-offs?
 - What are the most significant security enhancements?
 - Looking forward, what are remaining technical, policy, process challenges?
- **Discuss relevant activities being conducted by the panelists and participants**

Panelists

- **Lt. Col. Mark Brykowytch**, Chief, Hosted Payload Office, USAF SMC/XRF
- **Brent Armand**, Orbital Sciences Corporation
- **Lisa Berenberg**, The Aerospace Corporation
- **John Nilles**, The Aerospace Corporation

Presenters

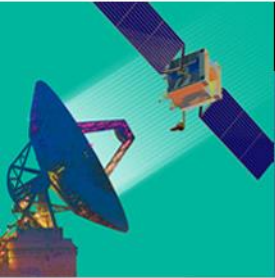
Working Group Participants will give brief summaries of pertinent ongoing work, e.g.,

- **Dr. Daniel Fischer**, *European Space Agency perspectives*

Key Takeaways

- **Focus is on cyber issues unique to Hosted Payloads**
 - **Hosted Payloads represent risk sharing**
 - **Up front business case alignment is essential**
 - **Must be compatible with architectural solution**
 - **Must be codified in contractual agreements**
 - **Cyber resilience must be part of business case alignment**
 - **Shared risk affects security approach / solutions**
 - **Maximizing separation of hosted payload information and control simplifies risk management**
 - **Depends on alignment of business cases**
 - **Repeatable tailorable process(es) needed despite uniqueness of business case drivers**
 - **Need trailblazer successes to build momentum**

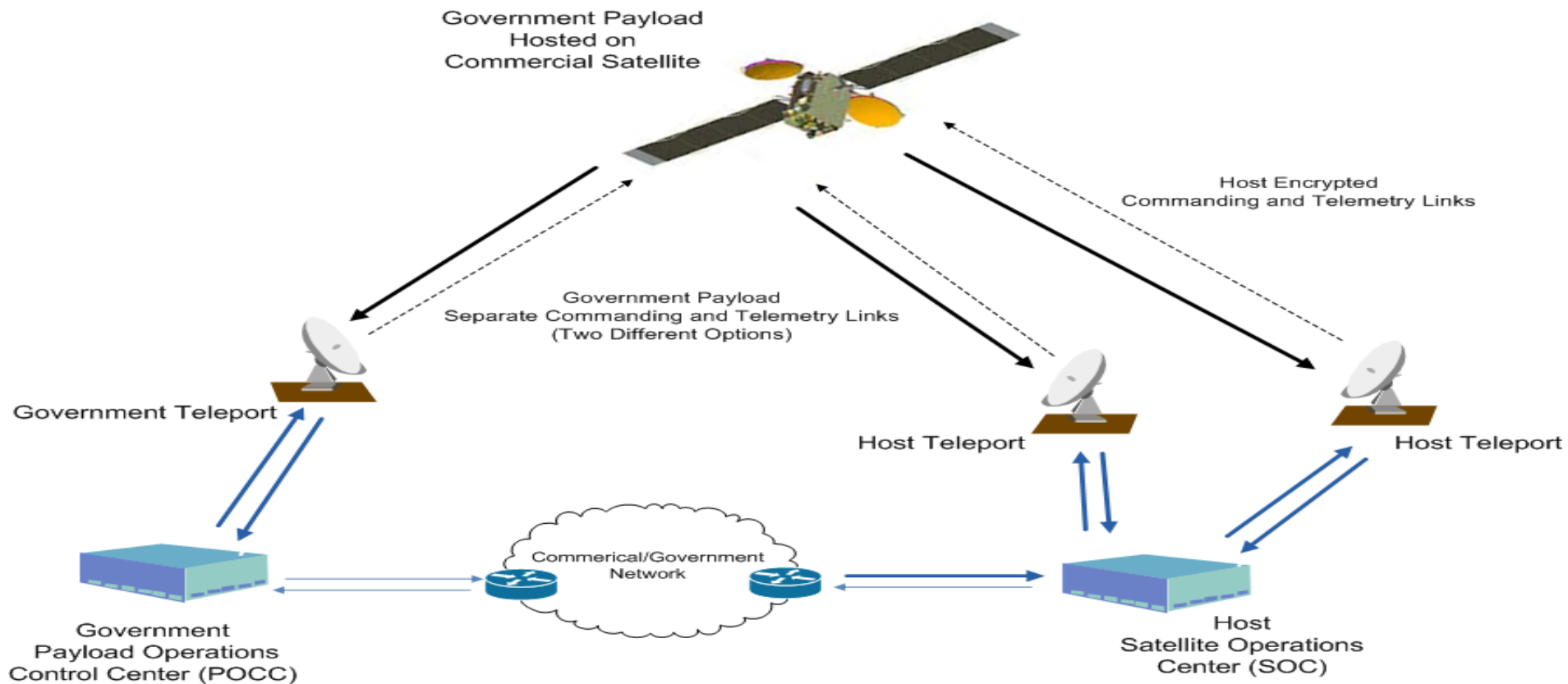
Good fences make good neighbors



Backup Charts

Session Context

Notional Dedicated Commanding and Telemetry Links



Session Context

Notional Embedded Commanding and Telemetry Links

