



U.S. Space Command Model-Based Mission Assurance

**USSPACECOM J34
Mission Assurance & Protection Division
Mr. Keith Thompson
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Briefing is Unclassified



DoD Mission Assurance (MA) Purpose & Policy

MA Definition & Purpose

MA is a Department of Defense (DoD)-wide process to identify, assess, manage, and monitor risks to DoD Strategic Missions

Goal: Protection and/or continued function and resilience of capabilities and assets critical to the execution of DoD Strategic Missions in any operating environment or condition

HSPD-7 Critical Infrastructure Identification, Prioritization, & Protection

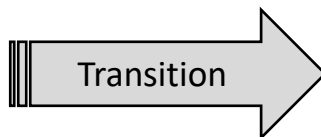
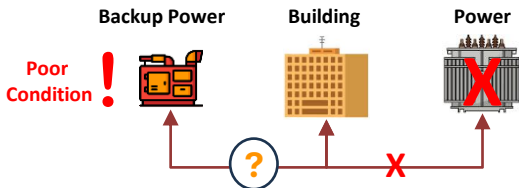


Dec 2003

DoDD 3020.40 Defense Critical Infrastructure Program (DCIP)



Aug 2005

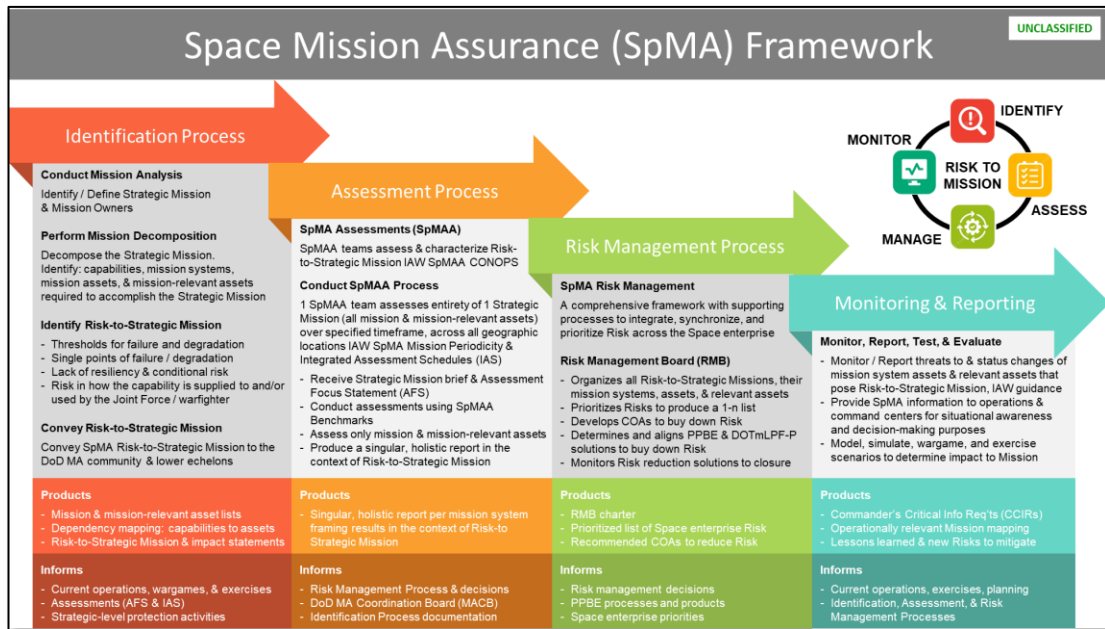
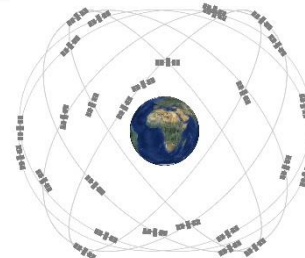


2012 MA Strategy



May 2012

Challenges Applying the DoD MA Construct to Space Systems



UNCLASSIFIED



Model-Based Mission Assurance (MA) for Space MA

ID Mission

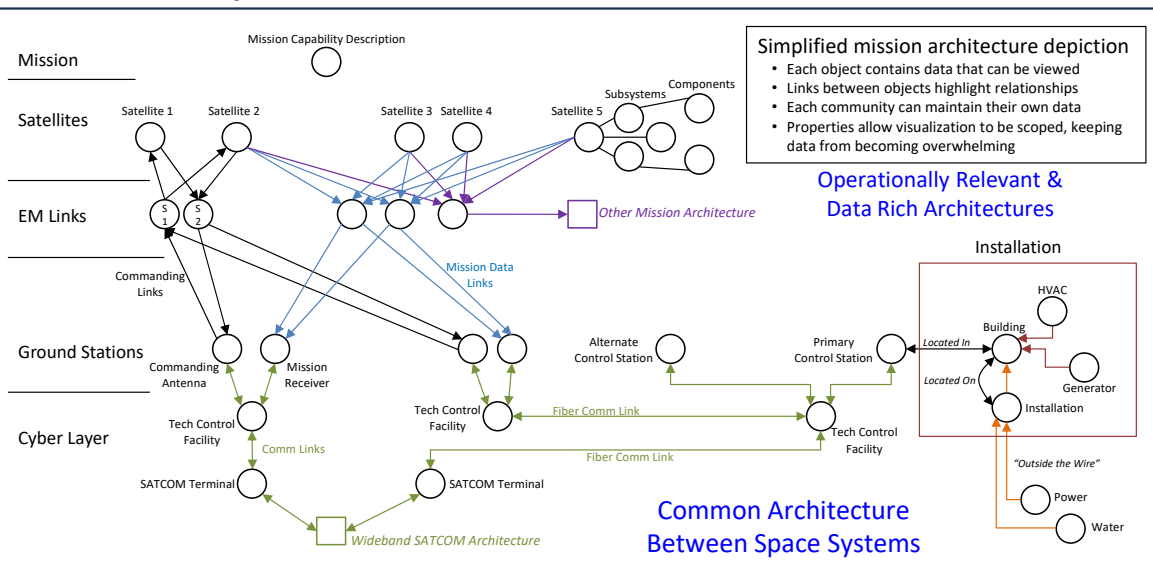
ID Assets

ID Relationship Links

ID Risk



Space Mission Architecture Visualization



Decompose Space capabilities

- Capabilities
- Mission Systems
- Mission Assets
- Mission-Relevant Assets*

* Personnel, equipment, facilities, networks, info & info systems, and supply chains on which the mission systems depend

Map Space Mission Architectures Identify Strategic Risk to Mission

- Mission System thresholds for failure and degradation
- Risk within the Space Mission System
 - Single Points of Failure / Degradation
 - Systemic Risk Affecting the whole Mission System
 - Conditional risk (if / then)
- Risk in how the System is supplied to/used by the Joint Force
- System of Systems Risk

Deliverables

- Dependency mapping of mission systems, assets, & mission-relevant assets
- Documented Strategic Risk to Mission