

DoD Space Architect

Ground Systems Architecture Workshop 26 February 1997

Lt Col Roger C. Odle, USAF
DoD Space Architect Office

Space Architect: Major General Robert S. Dickman, USAF
Architecture Lead: Captain Matt Rogers, USN



DoD Space Architect Charter

Purpose:

Consolidate responsibilities for DoD space mission and system architecture development into a single organization

Authority:

- Derived from Defense Acquisition Executive
- Influence acquisition decisions, but no direct acquisition authority
- All proposals involving space-related solutions referred to DoD Space Architect
- Architect information supports JSMB and/or DAB milestone reviews
- Key member of Space and C4I IPTs

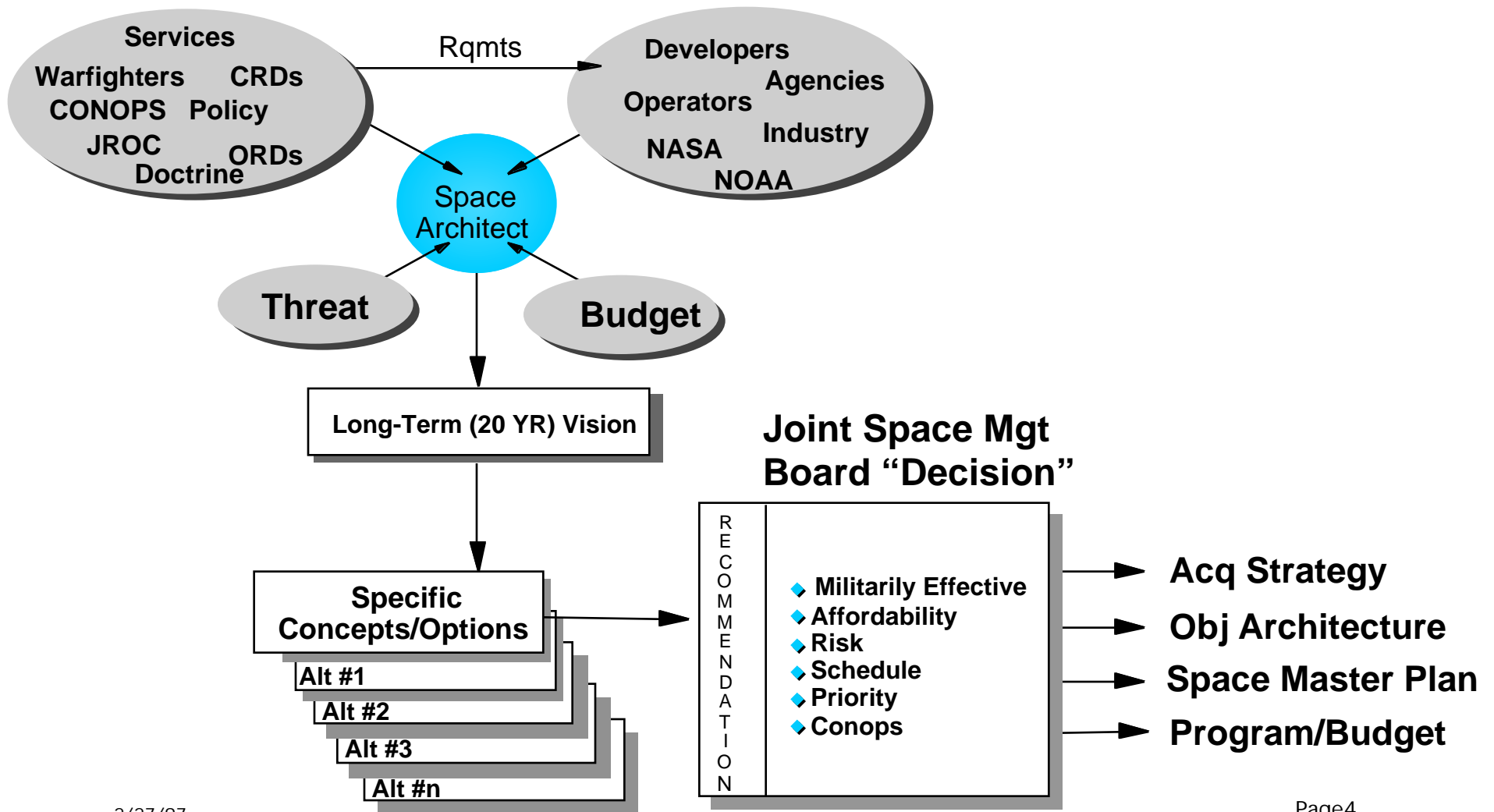


DoDOSA Activities

- Review Capstone Requirements Document (CRD) and define needs
- Boresight architectures on 2010
- Review Service doctrine
- Determine what is technically possible
- Define largely unconstrained alternatives
- Analyze alternatives against risk, cost, technology, and requirements satisfaction
- Establish tools to evaluate system
- Build consensus

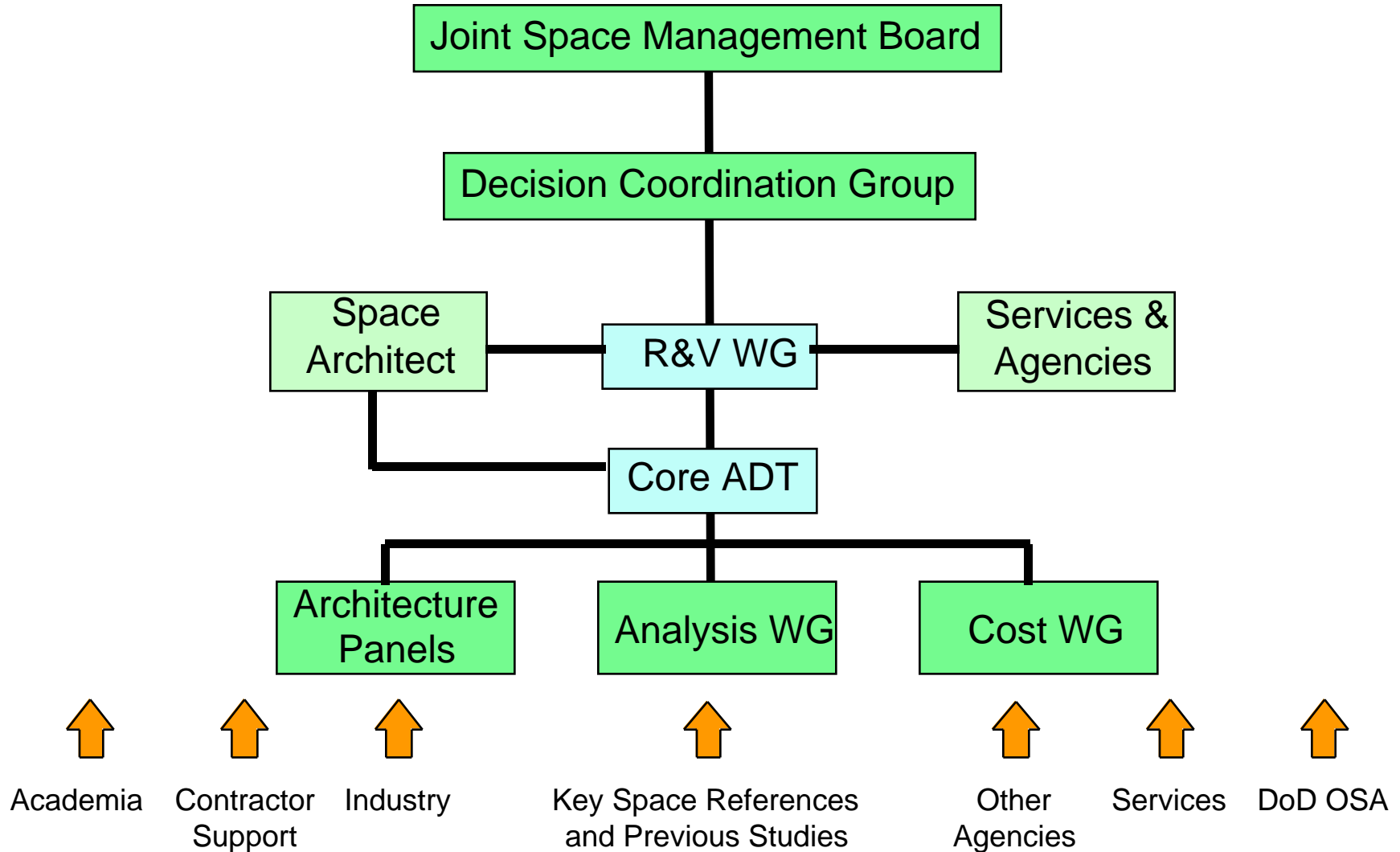


Strategy: Develop Range of Alternatives





Typical ADT Organization





Study Goals & Objectives

Develop Architectural Concepts That:

- Implement Integrated Satellite Operations
 - Primary and Backup Satellite Control
 - Data Transport
- Enable Integrated Mission Planning
- Enable Mission Processing Architecture Alternatives
- In Conjunction With the SATCOM Architecture, Enable Data Fusion and Information Dissemination Architecture Alternatives



Key Study Questions

- How do we perform Satellite Operations today, and at what cost?
- What are the future requirements for Satellite Operations?
- How much interoperability do we have today? Can more interoperability inter- or intra-sector be achieved? How?
- How much interoperability is needed/wanted within and between sectors?
- Is consolidation of Satellite Operations achievable within or across sectors? How much?
- What Standards do we have today? Can we standardize Satellite Operations inter- or intra-sector? What's possible? What type of standards?
- How much Satellite Operations common service (e.g. Backup Satellite Control) do we have today and what is possible, required and affordable for the future?
- Do we need/want common launch, early-orbit and anomaly support?
- Do we need/want common satellite control back-up?
- Do we want to retain a separate frequency band for Satellite Control launch, early-orbit and anomaly resolution?
- How much commercial service are we willing to use?
- How much international cooperation should we accommodate?
- How resilient should a Satellite Operations architecture be to new missions, threats, budget, etc?
- What are the program transition impacts for the future?



Progress

