



National Security Space Office

Operationally Responsive Space

Commercial Space Transportation Advisory Committee

11 October 2007

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ORS Support Lead

**Just a little over a year
ago...**



Operationally Responsive Space:

Four Ideas with the Same Name*

“Operational Level of War vs. Strategic Mission”



- (OPERATIONALLY responsive space (Ors))
- Put combatant commanders in charge

“Change the economics of space”



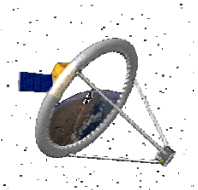
- (operationally RESPONSIVE space (oRs))
- Smaller and simpler satellites in shorter timeframes

“Surge and Replenish”



- (operationally responsive spaceLIFT (ors-L))
- Requires responsive launch and spacecraft

“Technology Push”



- (operationally responsive SPACE (orS))
- Use small satellites to drive technology insertion



ORS: Meant many different things to different people...

- **... but the convergence of forces this past year**
 - Congressional Interest/Concerns
 - Growing U.S. Need for Responsiveness
 - Space Acquisition Issues
 - High Rate of Change of Technology
 - TACSAT Programs
 - Responsive Space Operations Architecture
 - Emerging threats
- **... offered the opportunity to redefine ORS and establish a new common understanding**



FY 07 Congressional Actions

- Directed that no funds ... may be used for the AReS program
- Established a U.S. Policy on Operationally Responsive Space
- Authorized DoD to establish an ORS Office reporting directly to the DoD EA for Space...with a mission to
 - Develop **low-cost, rapid reaction payloads, buses, spacelift, and launch control capabilities...**
 - Coordinate and execute ORS efforts across the DoD
- Directed DoD to submit a “Plan for ORS”

A significant course adjustment for ORS



John Warner National Defense Authorization Act for FY 2007

Submit to the defense committees a report setting forth a Plan for the acquisition by the DoD of capabilities for ORS

- **Roles and Missions** of each military department, agency, components
- Identification of the **capabilities required** by DoD to fulfill such mission during current FYDP & an additional 10-year period
- **Chain of command** and reporting structure
- **Classification of information** requirements
- **Acquisition policies and procedures**
- Any legislative action necessary to provide the Office **additional acquisition authority** to carry out the ORS office responsibilities
- **Schedule** for the implementation
- **Funding and personnel** required

Section 913 (c) Plan for Operationally Responsive Space

... and over the last year



Notable ORS Achievements

- Re-scoped the ORS Program and significantly increased funding for ORS in the Air Force budget
- Delivered the “Plan for ORS” to Congress
- Released USSTRATCOM’s ORS CONOPS
- Established and stood-up the ORS Office
- Defined Operationally Responsive Space within DoD
- Energized a national effort to define and support ORS



ORS Program Description

- An affordable, rapid reaction combination of:
 - Responsive spacecraft
 - Responsive spacelift
 - Responsive ground processing, dissemination, and C2
- That delivers capabilities focused on the timely satisfaction of Joint Force Commanders' needs
 - Reconstitute lost capabilities
 - Augment/Surge existing capabilities
 - Exploit new technical/operational innovations
 - Enhance survivability and deterrence



Plan for ORS

- Community-wide effort to develop the Plan for ORS
 - Defense, intelligence, civil agency participation
 - Warfighters, operators, scientists, developers, acquirers
- Strong warfighter influence on the result
- Sets forth a plan for the stand-up of the ORS Office and the acquisition of ORS capabilities
 - Develop, acquire, field, and employ space capabilities in shortened timeframes and more affordable ways
- Addresses all of the Section 913 requirements

Plan for ORS signed by the DepSecDef on 20 April 2007

Copy of the Plan for ORS is available at <http://www.acq.osd.mil/nssso/ors/ors.htm>



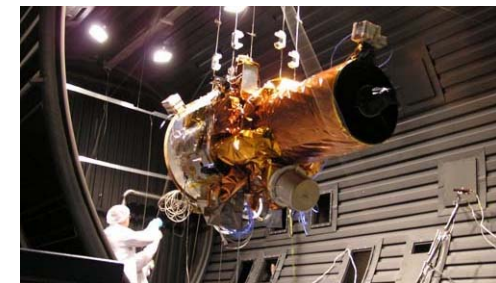
Noteworthy Features of the Plan

- Scopes ORS in a broader context
 - More than just rapid launch and smallsats
 - Tiered approach to addressing needs and improving responsiveness
- “ORS Office” vice “ORS Program Office”
 - More than just an acquisition program office
 - Integrator of ORS efforts throughout the community
- Concepts and Solutions element added to the four elements specified in Section 913
 - More than just a program acquisition function
 - Rapidly identify/assess promising alternatives to meet pressing needs
- ORS Office at the hub of a larger National Security Space community effort



ORS Tiered Approach

- Tier-1 (employ it)
 - On-demand with existing assets
 - Minutes to hours
- Tier-2 (launch/deploy it)
 - On-call with ready-to-field assets
 - Days to weeks
- Tier-3 (develop it)
 - Rapid transition from development to delivery of new or modified capabilities
 - Months (not years)



The Desired End-State



ORS Office Stand-Up 21 May 2007—Kirtland AFB, NM

ORS = Assured space power focused on timely satisfaction of Joint Force Commanders' needs

DepSecDef, July 2007



New office driven by warfighter identified needs; USSTRATCOM Initial ORS CONOPs approved on 7 May 2007



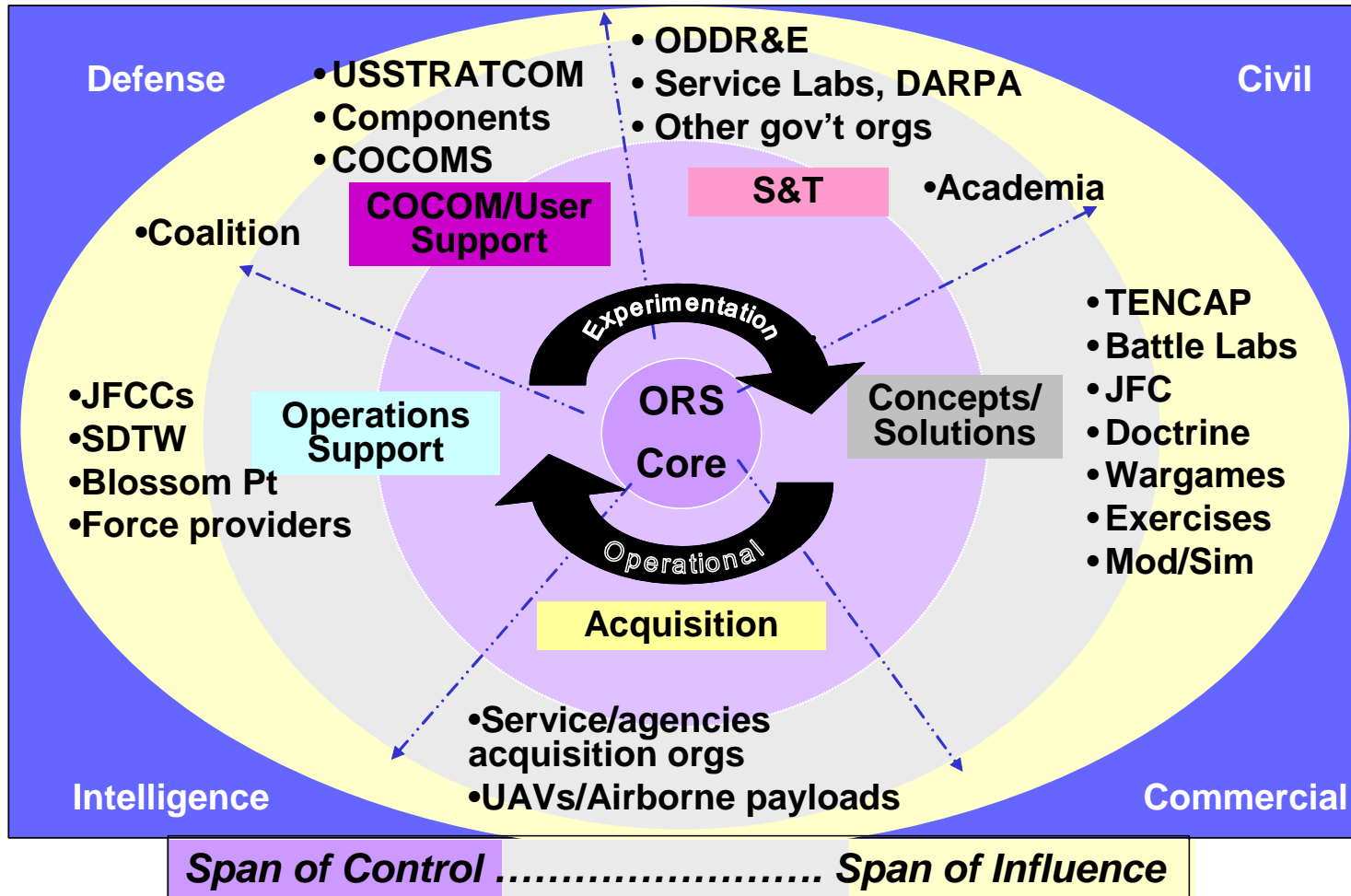
Joint organization with a Director reporting directly to the DoD EA for Space

~20 military/civilian gov't staff augmented w/ KTR support

Liaisons with key stakeholder organizations; emphasis on unity of effort across community



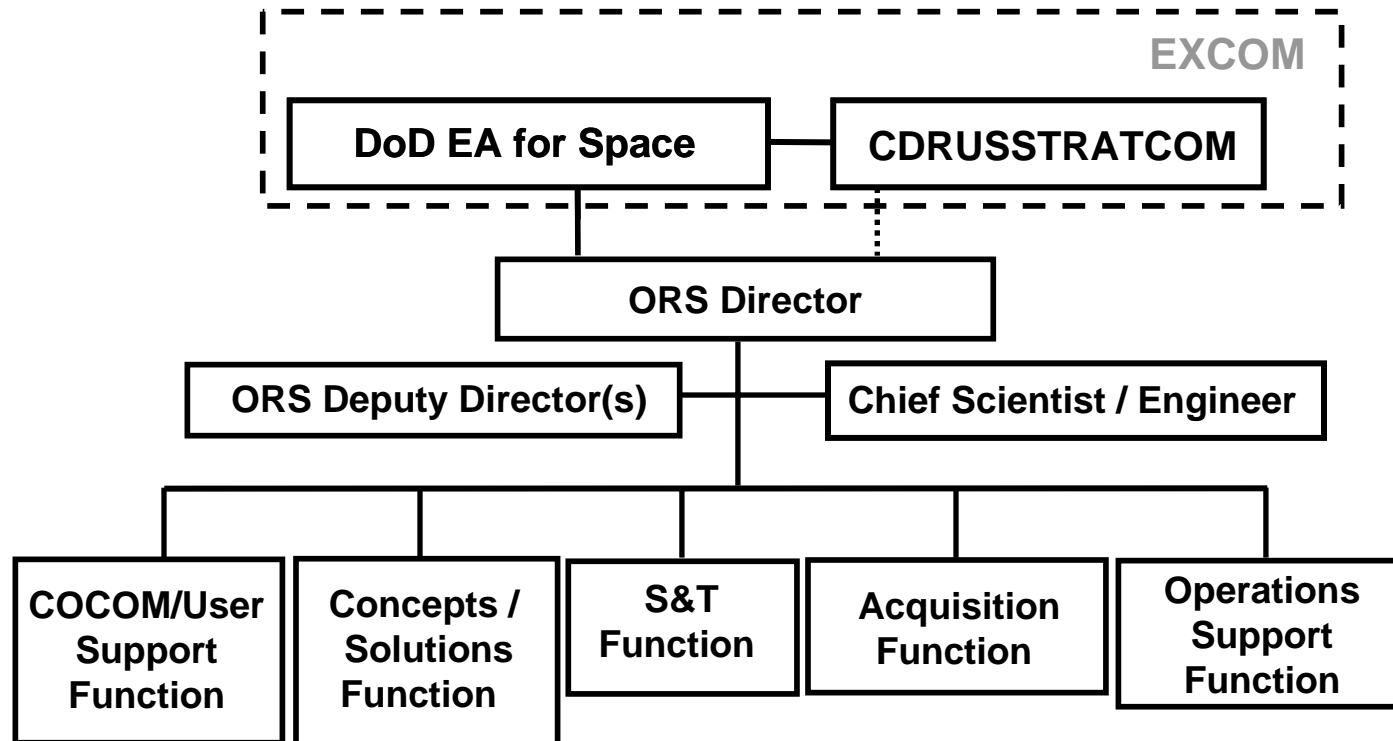
Hub and Spoke ORS Community



ORS Office – at the hub of a national initiative for Operationally Responsive Space



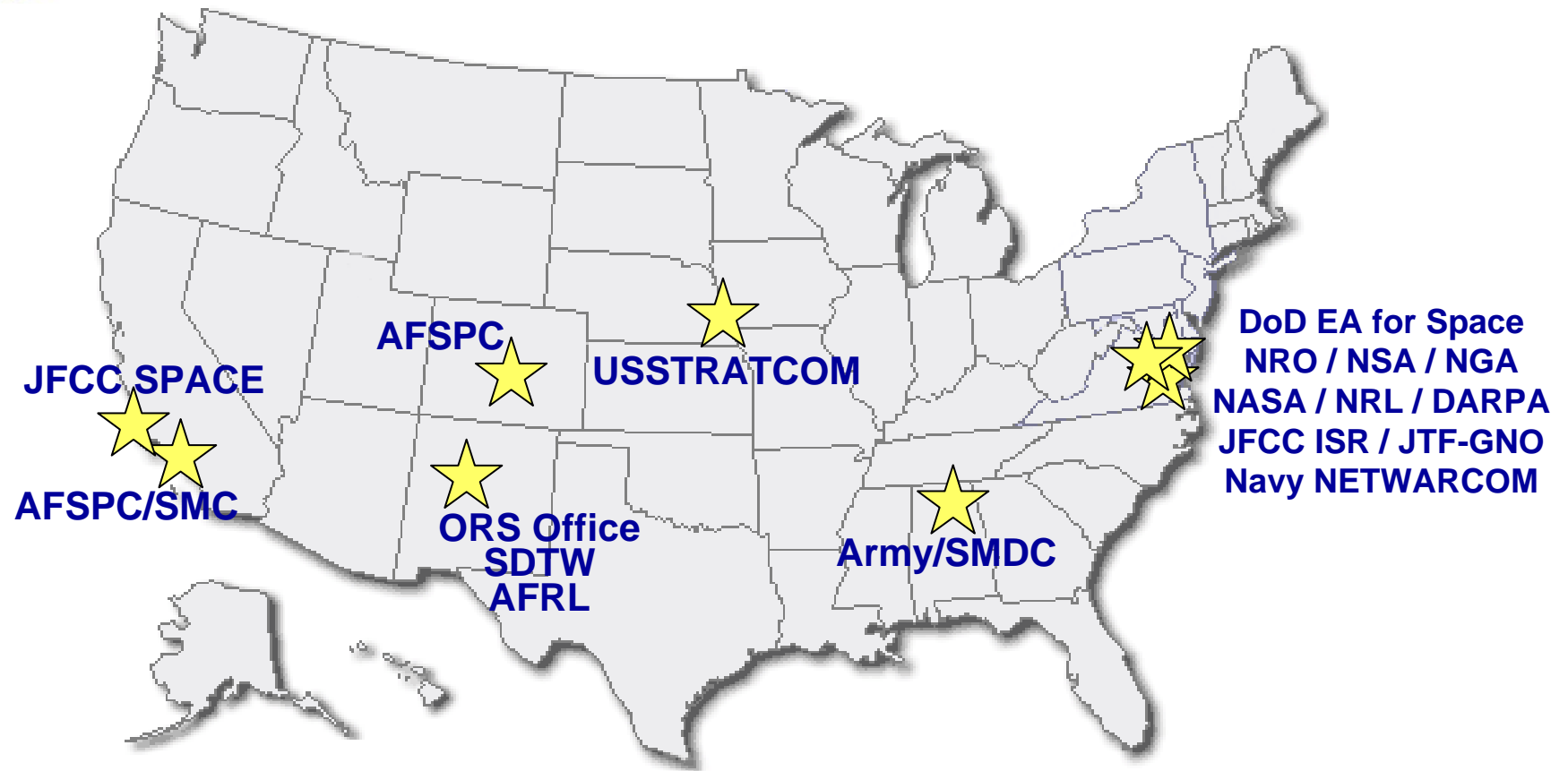
Proposed ORS Office Structure



ORS Director Reports Directly to the DoD EA for Space



ORS – A National and International Initiative



Other key players from the Services and Agencies, Labs, Intelligence Community, NASA, and Industry – throughout the United States and the World

... but more work remains



On-going activities

- **Completing detailed implementation plans for the ORS Office**
- **Refining ORS strategic framework and near term plans**
- **Developing a long-term ORS Roadmap**
- **Working with USSTRATCOM and the services/agencies to**
 - **Identify and prioritize urgent warfighter needs**
 - **Define the long-term enabling needs for ORS**
- **Establishing requirements and acquisition processes to meet ORS responsiveness goals**
- **Institutionalizing ORS Office and service/agency supporting relationships**
- **Educating the community on ORS**
 - **Defense, intelligence, and civilian stakeholders**
 - **Industry, academia, and international partners**



Summary

- **ORS Plan in place – beginning to execute**
 - Funding and community support strong
- **Community-wide team working details of ORS Office stand-up and relationships**
- **Warfighter needs and gap identification drive ORS Office activities**
- **Multi-tiered approach improves space responsiveness**
- **ORS complements (not in competition with) “BIG space”**



Shaping the Future of Operationally Responsive Space

