

Headquarters U.S. Air Force

Integrity - Service - Excellence

Transformation and Space



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SAF/AQS

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Overview

- Defense Priorities
- Space Commission
- Space Modernization



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Administration Priorities

- **Strengthen bond of trust with American Military**
- **Develop capabilities to defend against missiles, terrorism and new threats aimed at Space assets and Info Systems**
- **Take advantage of the technological revolution to create the military of the next century**



SecDef's Five Priorities

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- (1) Fashion and sustain deterrence appropriate to the new national security environment.**
 - **Missile Defense**
 - **Offensive nuclear deterrence**
 - **Non nuclear defensive capabilities**
- (2) Assure the readiness and sustainability of deployed forces.**
 - **Kosovo lessons learned**
 - **Inadequate readiness strains future quality of the force**
- (3) Modernize U.S. command, control, communications, intelligence and space capabilities.**
 - **Modern C3I infrastructure is fundamental to transition of U.S. Military and is the foundation upon which a modern force is deployed.**
 - **Strengthen Intel and Space capabilities**
 - **Increase cooperation between DoD and IC**

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SecDef's Five Priorities

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cont.

(4) The US Defense establishment must be transformed to address our new circumstances to include the introduction of new weapon systems and to take full advantage of commercially created information technology.

- Procure new, lower cost and increased performance weapon systems**
- New acquisition strategy based on speed and innovation.**
- Transformation may require near -term investments to acquire modern capabilities based upon U.S. scientific and industrial pre eminence.**

(5) Reform of DOD structures, processes and organization.

- Reformation of the acquisition process.**
- Streamline and shed unneeded organizations and facilities.**

AQS WILL CONTRIBUTE TO ALL OF THESE PRIORITIES!



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SecDef Press Conference Space Mgt/Organization

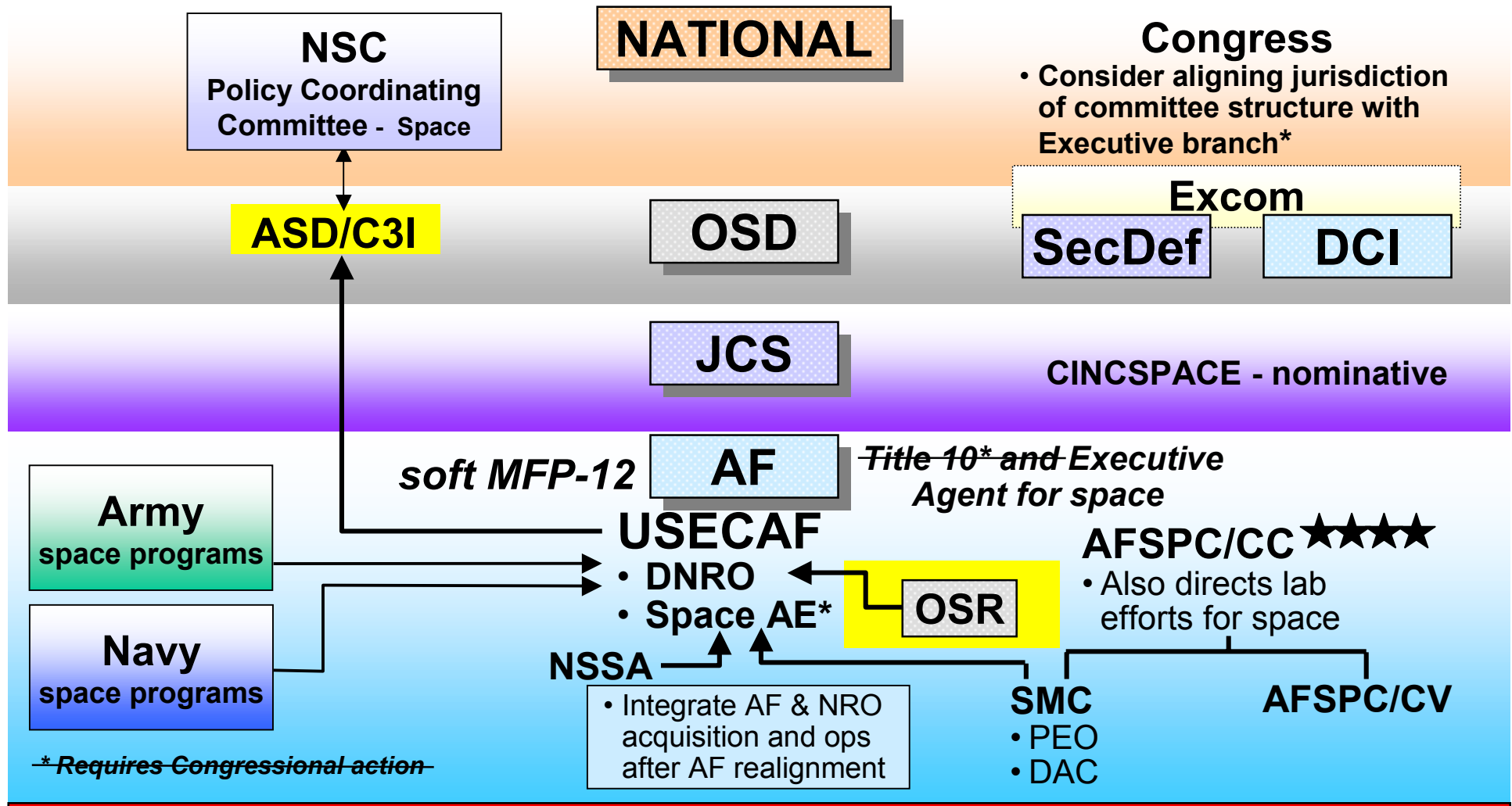
- **Space Commission focused on transforming management & organization of defense and intelligence space - not programmatic**
 - **US reliant on space - daily lives increasingly tied to space**
 - **Dependence makes us vulnerable to new challenges**
 - **History shows that deterrence/dissuasion are important**
- **Management/organization must reflect importance - Space issues are complex and merit a renewed focus**
 - **Fortunate that congress recognized growing dependence and vulnerability and had foresight to establish Commission**
- **Organizational changes summarized:**
 - **DCI and SecDef meeting regularly**
 - **DOD merging disparate space activities/adjusting chains of command - majority of changes involve realigning Air Force HQ and field commands to more effectively organize, train and equip for space operations - ensuring Air Force lead**

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Space Commission DOD Implementation



Establishes a path to form "critical mass" for space



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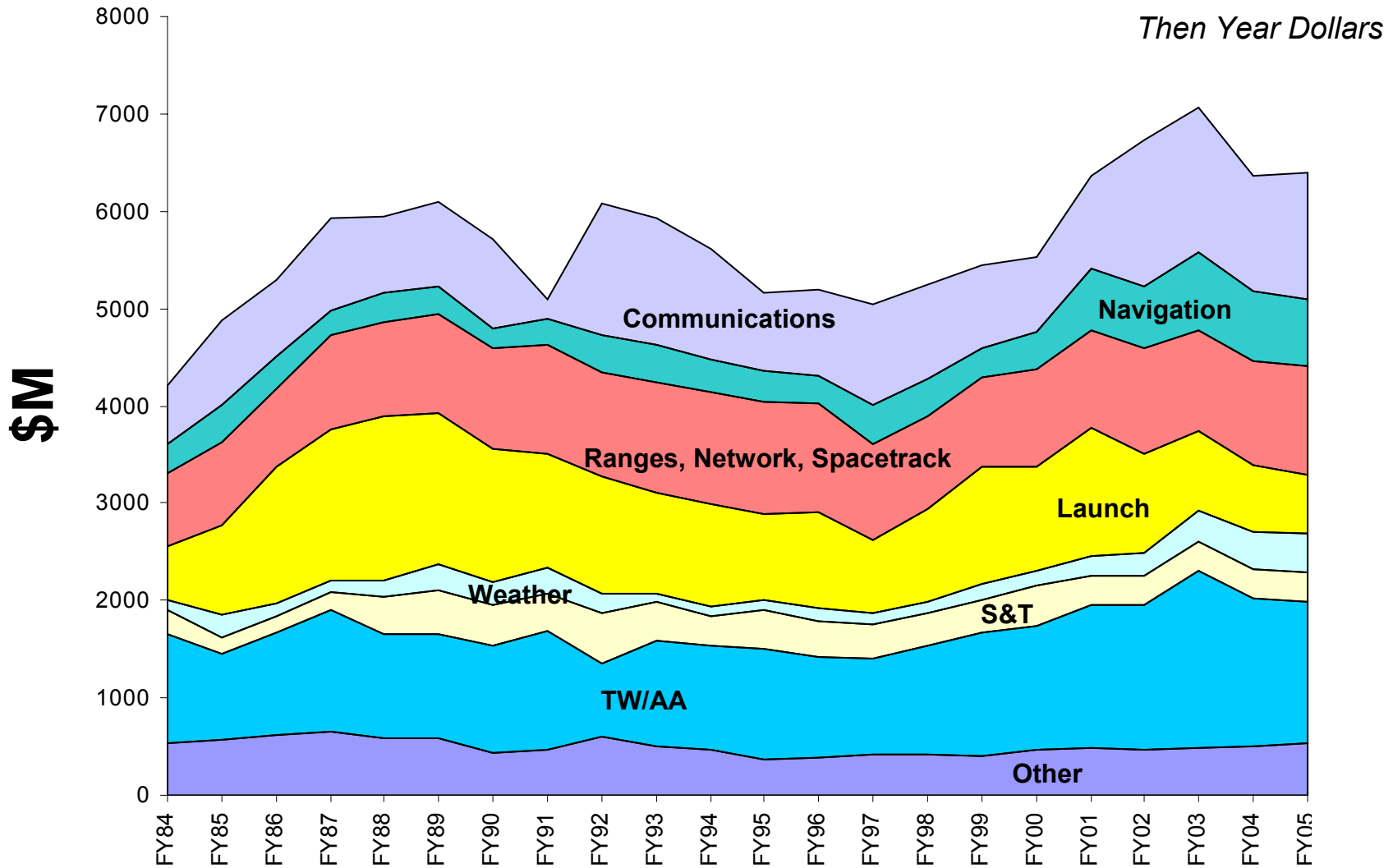
Space Commission AF Organizational Shifts

- **SAF/AQS and SX, along with NSSA move under SAF/US**
 - **No change in AQS role**
 - **SAF/US becomes single official responsible for acquisition of DOD and IC space systems**
- **SMC/CC, dual hatted as PEO Space, realigned under new AFSPC**
 - **No change in the roles of the PEO**
 - **Tweaks to portfolio better align space programs with new structure -- including AFMC enterprise domains**
 - **SMC alignment: merger, not hostile takeover**



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Air Force Space Funding by Category



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Air Force Space Modernization

Communications

Protected

Milstar

Advanced EHF

Wideband

DSCS

Wideband Gapfiller

Advanced Wideband

2003

2008

Navigation

GPS IIR

2005

GPS IIF

Surveillance & Threat Warning

DSP

2004

SBIRS High

SBIRS Low

2006

Meteorology

DMSP

NPOESS

2008

Launch

Delta II/Atlas II

2004

EELV/MLV

Titan IV

2003

EELV/HLV

Ranges

ER/WR

2006

SLRS

In Lab Today

- SBR
- SBL
- SMV/CAV
- other

2000

2005

2010

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Bottom line

- **New Administration's defense priorities rely heavily on space and information capability**
- **AF will transform itself within the guidelines of the Space Commission to take a larger role in space**
- **We'll continue pursuing more capable space systems for today's missions and look toward transforming tomorrow's capability**



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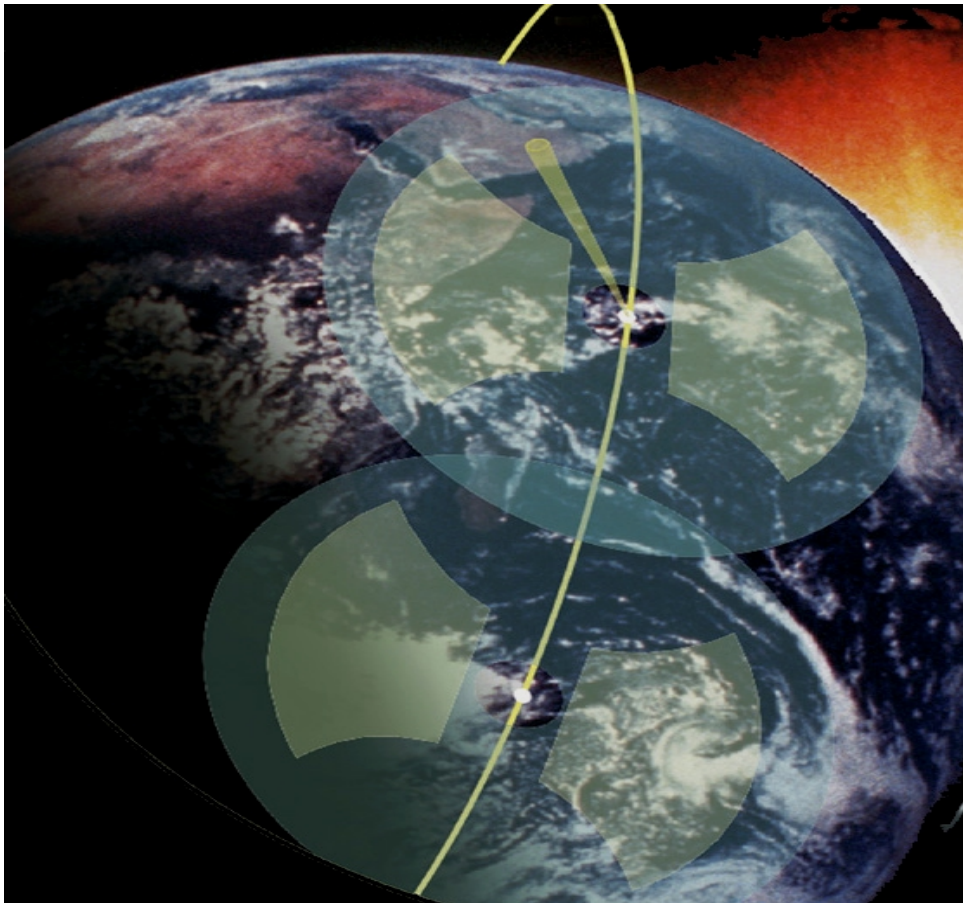
Back Up

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Space-Based Radar (SBR)



“Revolution in Battlespace Surveillance”

Purpose

- Assess user utility, feasibility, and affordability of an operational space-based radar system

Description

- Two-satellite
 - Launch spacecraft in 2006 timeframe
 - Demonstrate technical capability to conduct GMTI
 - Provides basis for Milestone C decision
 - Becomes first satellites in an IOC constellation

Bottom line

- Supports decision to develop future operational SBR system with a 2011 ILC per NSSA Roadmap



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Operational SBR Warfighter Contributions

Threat assessment/planning (deliberate & crises)

- Adversary's TTPs
- Force disposition/force tailoring

Situational awareness

- Before friendly forces arrive
- Deep movements
- Predictive Battlespace Awareness

Precision targeting Support

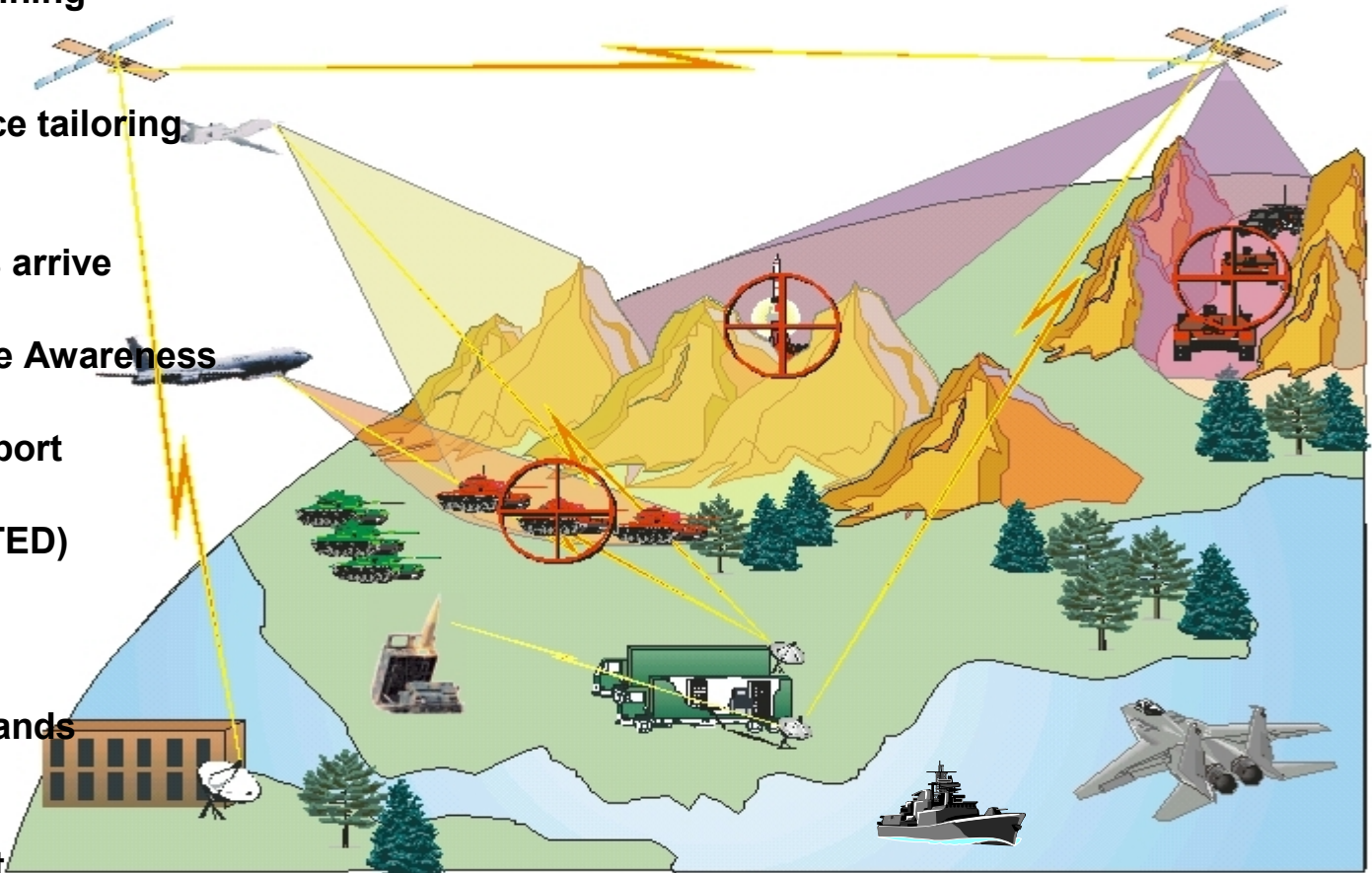
- On-demand tracking
- "Theater on Disk" (DTED)

Resource multiplier

- No CAP required
- Off-loads LD/HD demands

Reduced operator risk

Low/No theater footprint

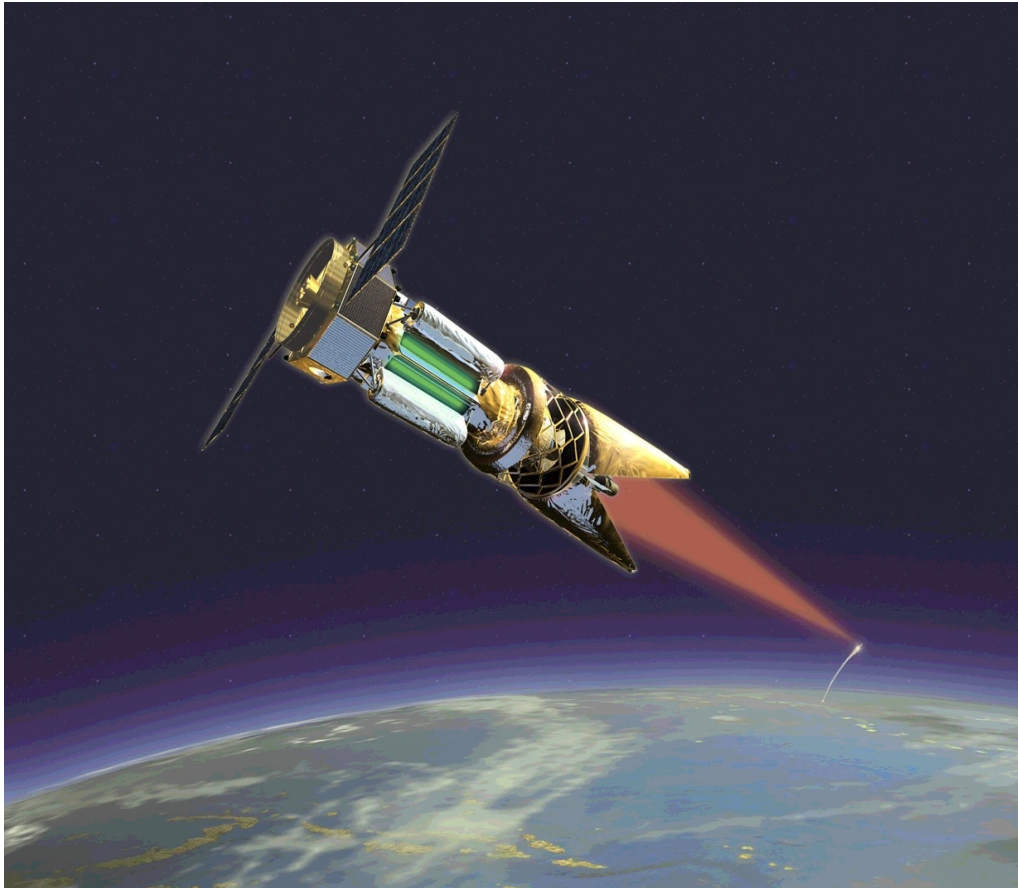


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Space Based Laser (SBL) Integrated Flight Experiment (IFX)



“Defense at the Speed of Light”

Purpose

- ◆ Advance key technologies and demonstrate feasibility of an integrated space based laser to: (1) conduct boost phase intercept of a ballistic missile and (2) perform counterspace, space & terrestrial surveillance, and targeting activities)

Description

- ◆ Technology space demo (AF executing)
 - ◆ Integrated testing on ground
 - ◆ Build and space-test one IFX vehicle
 - ◆ AF & BMDO partners: 50-50 funding
- ◆ On-orbit test in 2012-2014 (current funding)
- ◆ Acceleration to 2010 possible

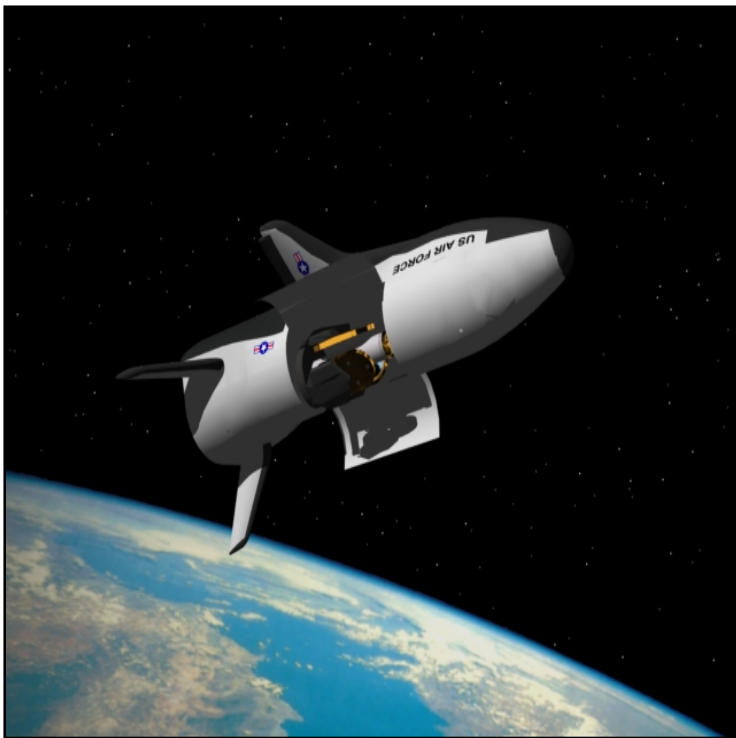
Bottom Line

- ◆ Supports future decision to develop and deploy operational SBL system (2020 IOC per AFSPC Roadmap)



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Space Maneuver Vehicle & Reusable Lift Vehicle



Purpose

- ◆ Reusable Satellite Bus
... and Reusable Upper

Description

- ◆ Responsive and survivable
 - Rapid turn time
 - Multiple Launch Options
 - Variable on-orbit duration
 - Return to Main Operating Base with payload for repair or redeployment

Bottom line

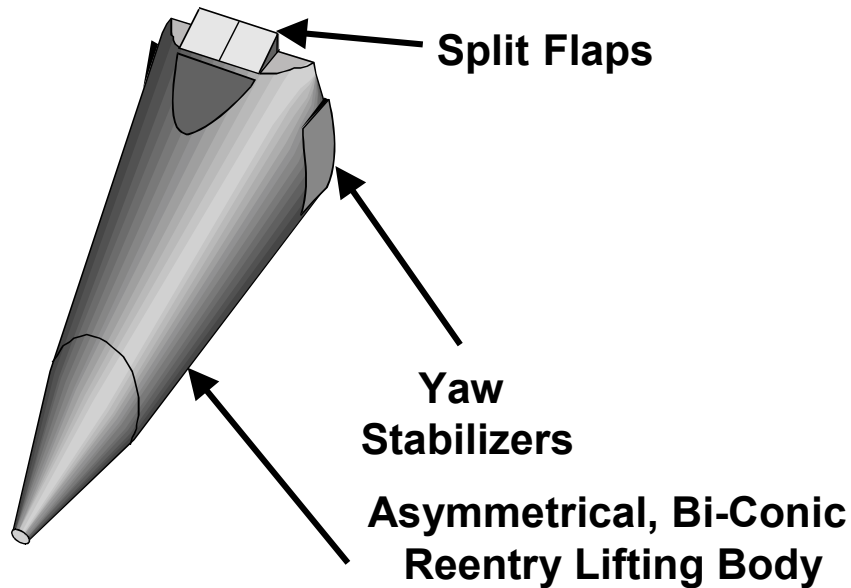
- ◆ With a final goal of Developing Launch on Demand
 - Quick Reaction
 - Mobile
 - Any Inclination

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CAV- Description



Description

- ◆ Common Aero Vehicle -
Glide-maneuvering reentry vehicle
- ◆ Worldwide, all-weather target capability
- ◆ Split flaps and yaw stabilizers to
control maneuvering
 - ◆ Glide greatly extends range
 - ◆ Precise target approach
and evasive capability
 - ◆ Internal guidance with GPS