

# Support to Space Acquisition Community Presented to DAU Board of Visitors (BoV)

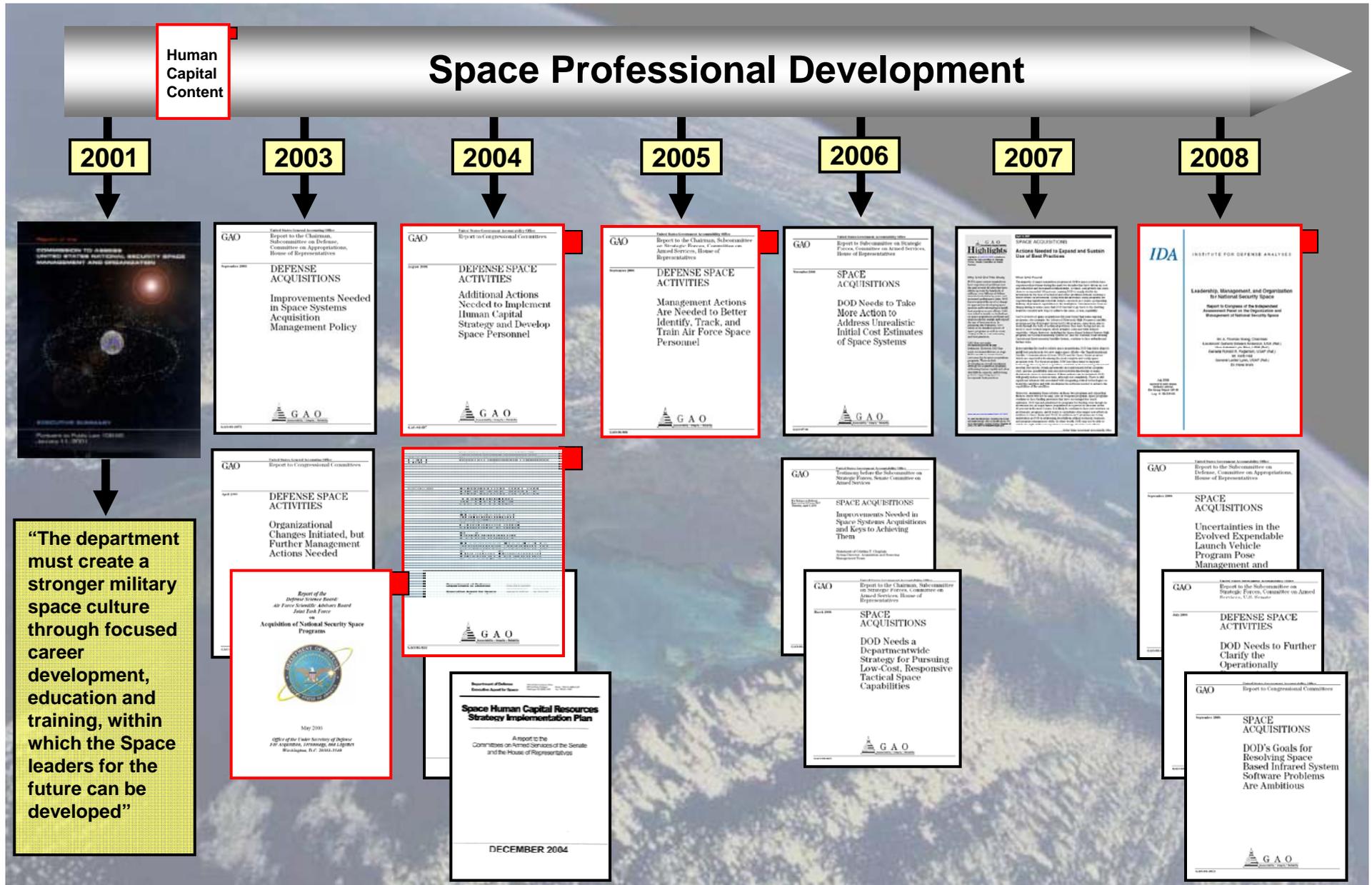
26 Jan 2011



**Rob Tremaine**  
Associate Dean, Outreach & Mission  
Assistance  
DAU West Region  
San Diego, CA  
619-524-4811

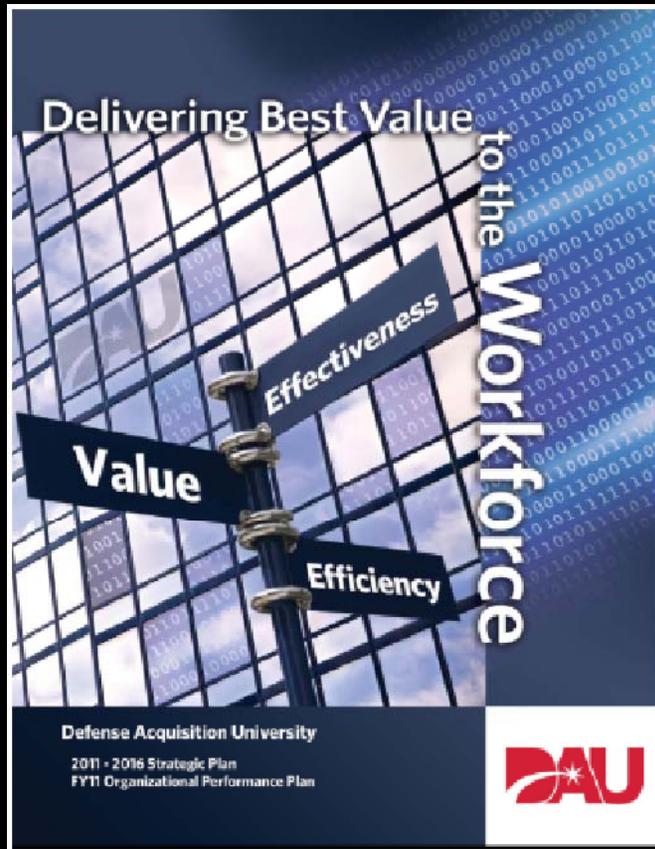
[robert.tremaine@dau.mil](mailto:robert.tremaine@dau.mil)

# Significant Interest in Space Acquisition and Associated Human Capital Initiatives



# DAU has been Well-Positioned to Unique Space Acquisition

## 5 Strategic Goals



- 1
- 2
- 3
- 4
- 5

Mission Assistance

 **Strategic Goal # 3**

Support congressional and DoD acquisition improvement initiatives through thought leadership, applied research, and engagement with key acquisition organizations.

Mission Assistance

 **Strategic Goal #5**

Proactively engage our customers and stakeholders to understand their mission requirements and develop responsive solutions to enhance performance.

# Space & Non-Space Customers

## Major Space Customers

### DoD Programs

**AMF JTRS** – Joint Tactical Radio System Airborne & Maritime/Fixed Station

**JTRS GMR** – Joint Tactical Radio System Ground Mobile Radio

**JTRS HMS** – Joint Tactical Radio System Handheld, Man-pack, and Small Form Fit Radios

**JTRS NED** – Joint Tactical Radio System Network Enterprise Domain

**MIDS** – Multi-Functional Information Distribution System

### Navy Programs

**NMT** – Advanced Extremely High Frequency Navy Multiband Terminal Satellite Program

**MUOS** – Mobile User Objective System

**CANES** – Consolidated Afloat Network Enterprise Services

### Air Force Programs

**NPOESS**– National Polar Orbiting Operational Environmental Satellite System

**SBIRS HIGH** – Space-Based Infrared System Program, High Component

**SBSS B10** – Space-Based Space Surveillance Block 10

**GPS-III A** – Global Positioning Satellite III

**AEHF** – Advanced Extremely High Frequency (AEHF) Satellite Program

**FAB-T** – Family of Beyond Line-of-Sight Terminals

**GBS** – Global Broadcast Service

**NAVSTAR GPS** – Global Positioning System

**WGS** – Wideband Global SATCOM Program

**3GIRS**– 3rd Generation InfraRed Surveillance

**SBSS B10 Follow-On** – Space-Based Space Surveillance Block 10 Follow-on

**SF** – Space Fence

**GPS OCX** – Global Positioning Satellite Next Generation Control Segment

**B-2 EHF SATCOM + COMPUTER INCREMENT II**

### DoD PEOs

JTRS

### Navy PEOs

PEO C4I

PEO SPACE SYSTEMS (SS)

### Air Force PEOs

PEO SPACE SMC

\*PEO Strategic Systems



# Organizational Alignment

**Customer Learning Officers**



**Denise Wheaton**



**Brian Anderson**



**Lois Harper**



**Kevin Corcoran**



**John Perry**



**Ray Alfaro**



**Woody Spring**



**John Numoto**



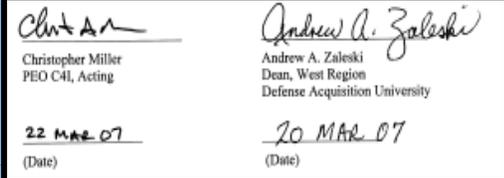
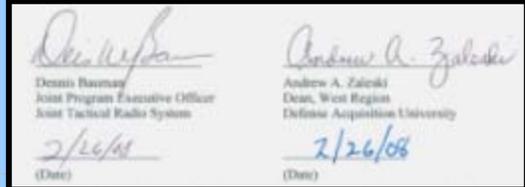
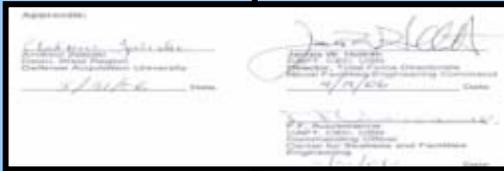
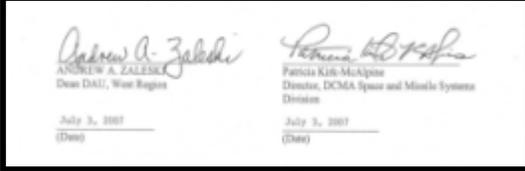
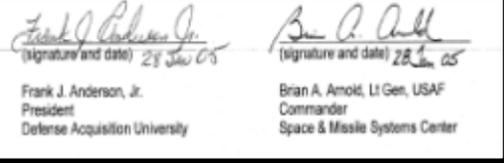
**Larry Adams**



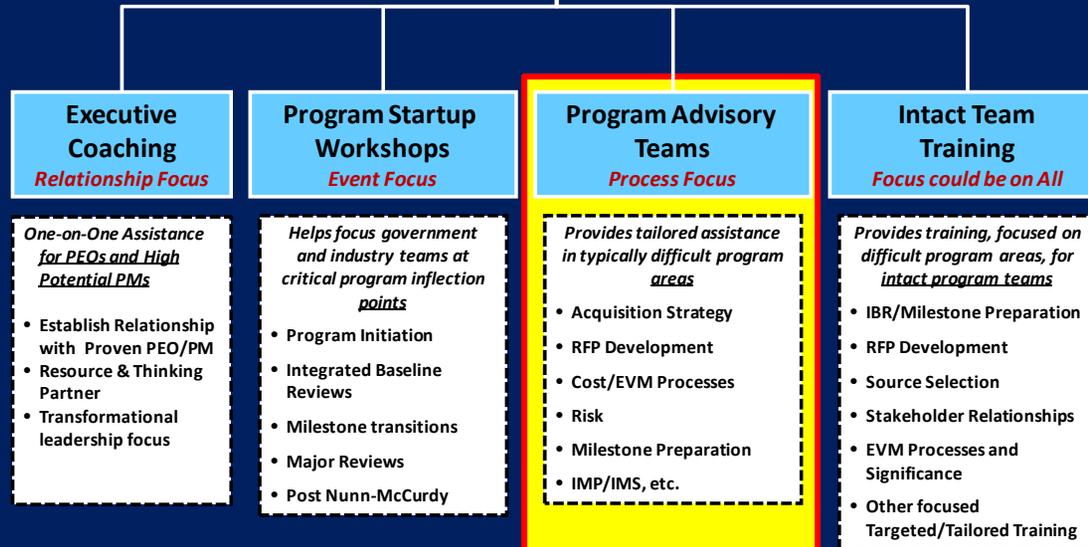


# Our Commitment & Catalyst: MOAs

## Organizational MOAs

Existing	Date Signed	Existing	Date Signed
	<p><b>PEO C4I</b></p> <p>20 Mar 2007</p>  <p>Christopher Miller PEO C4I, Acting</p> <p>Andrew A. Zaleski Dean, West Region Defense Acquisition University</p> <p>22 MAR 07 (Date)</p> <p>20 MAR 07 (Date)</p>		<p><b>JPEO JTRS</b></p> <p>26 Feb 2008</p>  <p>Dennis Bauman Joint Program Executive Officer Joint Tactical Radio System</p> <p>Andrew A. Zaleski Dean, West Region Defense Acquisition University</p> <p>2/26/08 (Date)</p> <p>2/26/08 (Date)</p>
	<p><b>NAVFAC</b></p> <p>31 May 2006</p> 		<p><b>DCMA</b></p> <p>03 Jul 2007</p>  <p>Andrew A. Zaleski Dean DAU, West Region</p> <p>Patricia Kuhl-Malpin Director, DCMA Space and Missile Systems Division</p> <p>July 3, 2007 (Date)</p> <p>July 3, 2007 (Date)</p>
	<p><b>Space &amp; Missile Systems Center</b></p> <p>28 Jan 2005 Update Underway</p>  <p>Frank J. Anderson, Jr. President Defense Acquisition University</p> <p>Brian A. Arnold, Lt Gen, USAF Commander Space &amp; Missile Systems Center</p> <p>(signature and date) 28 Jan 05</p> <p>(signature and date) 28 Jan 05</p>		<p><b>SPAWAR</b></p> <p>19 Nov 2007 Updated 2009</p>  <p>Andrew A. Zaleski Dean West Region Defense Acquisition University</p> <p>Raymond C. Johnson Commander Space and Naval Warfare Systems Command</p> <p>Date: 12 Aug 09</p> <p>Date: 10 Oct 2009</p>
	<p><b>National Security Space Institute</b></p> <p>10 Jun 2005 Updated 2009</p>  <p>Andrew A. Zaleski Dean DAU - West Region</p> <p>Robert W. Gibson Commander, NSSI</p> <p>7 Aug 09 (Date)</p> <p>10 Jun 09 (Date)</p>		<p><b>Strategic Systems</b></p> <p>Under Construction</p>

# Mission Assistance



**we're having a favorable impact on many of our customers**

<p><b>CANES</b></p>	<p><b>SBIRS</b></p>	<p><b>MILSATCOM</b></p>
<p><b>SMC-Guardian Challenge</b></p>	<p><b>EELV</b></p>	<p><b>DCGS-N</b></p>

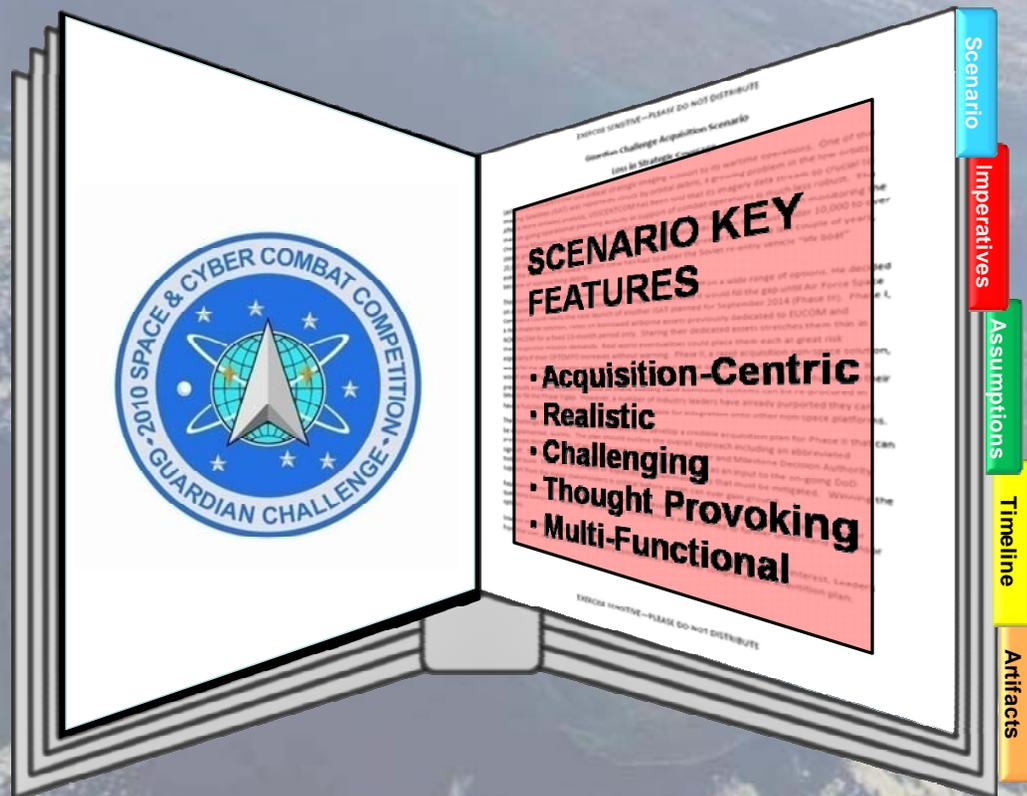
# DAU Program Advisory Teams

Opportunities



- Space Superiority Systems Directorate
- Global Positioning Systems Directorate
- Directorate Launch and Range Systems Directorate
- Space-Based Infrared Systems Directorate
- Defense Weather Systems Directorate
- Satellite Control and Network Systems
- MILSATCOM Systems Directorate
- Space Logistics Directorate
- Missile Defense Systems Division
- Space Development and Test Directorate
- Space Radar Office

## Guardian Challenge (GC)



- Developed Turn Key Acquisition Competition for the Space & Missile Center
- 6 MDAP Teams Competed
- Competition Tested their “Acquisition Mettle” across the entire acquisition integrated framework

DAU Had Never Participated in an Event Like This Before

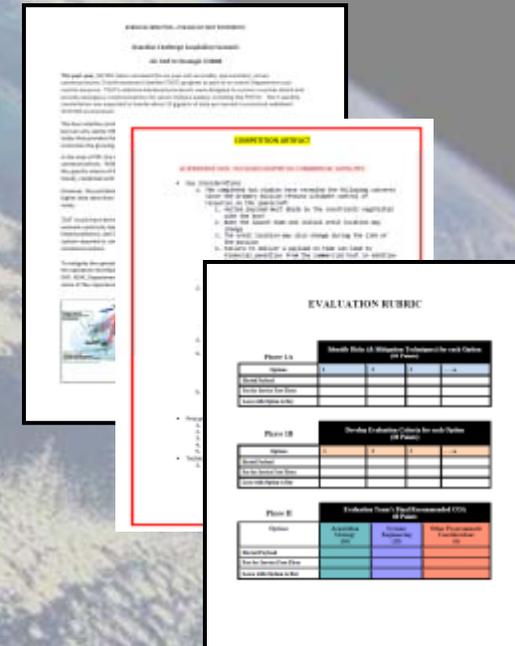
# DAU Program Advisory Teams

Accomplishments

## GC Competition Timeline

Day 1		Day 2			Day 3
1200	1400	0700-0730	0730-1000	0900-1600	0800-1200
Issue Competition Warning Order (WARNORD)	Up To 5 Questions Due From Each Team	Provide Strategic Overview to Teams	Teams Prepare and Deliver <b>Part I A/B</b> Results to Evaluators	Teams Prepare Innovative Acquisition Strategy for Evaluation	Teams Separately Brief <b>Part II</b> Results to Evaluators
<b>- KEY OBJECTIVES -</b>					
<ul style="list-style-type: none"> <li>Review &amp; Assimilate Scenario</li> <li>Develop Situational Awareness</li> <li>Understand Competition Objectives</li> <li>Understand Evaluation Rubric</li> </ul>	<ul style="list-style-type: none"> <li>Confirm Operational Imperatives</li> <li>Reconcile potential Acquisition or Operational Issues</li> <li>Generate up to 5 questions pertaining to Scenario and other artifacts</li> </ul>	<ul style="list-style-type: none"> <li>Prepare to fine tune team heading <u>after</u> receiving answers to questions</li> <li>Teams Prioritize Individual Assignments</li> </ul>	<ul style="list-style-type: none"> <li>Identify Risks and companion Mitigation Techniques (<b>Part 1A</b>)</li> <li>Develop Evaluation Criteria for the three options provided (<b>Part 1B</b>)</li> <li>Teams turn-in <b>Part IA/B</b> Assignments</li> </ul>	<ul style="list-style-type: none"> <li>Determine most suitable and optimal COA</li> <li>Address 5000.02 Requirements</li> <li>Prepare Robust Presentation (<b>Part II</b>) for Assessment</li> </ul>	<ul style="list-style-type: none"> <li>Evaluate Teams</li> <li>Determine Winner</li> <li>Survey Teams</li> <li>Complete After Action Report</li> </ul>

DAU Developed Multiple Competition ARTIFACTS



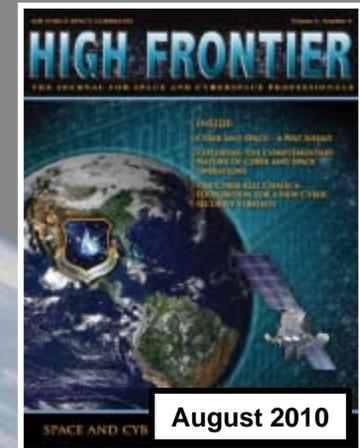
Accomplishments

## GC Results

<b>PARTICIPANTS:</b> How Would You Rate <b>YOUR</b> participation?	Strongly Disagree	Disagree	Agree	More than Agree	Strongly Agree	% Green
Tested <b>my</b> fundamental acquisition knowledge	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	96%
Verified <b>my</b> ability to apply key acquisition principles	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	96%
Reinforced <b>my</b> strengths required by area of expertise	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	92%
Uncovered <b>my</b> training needs in acquisition Life Cycle	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	88%
Gave <b>me</b> a better feel for typical acquisition issues	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	92%

<b>EVALUATORS:</b> Observations on Participants	Strongly Disagree	Disagree	Agree	More than Agree	Strongly Agree	% Green
Tested <b>their</b> fundamental acquisition knowledge	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	100%
Verified <b>their</b> ability to apply acquisition principles	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	100%
Reinforced <b>their</b> strengths required by area of expertise	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	88%
Uncover <b>their</b> training needs in acquisition Life Cycle	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	88%
Gave <b>them</b> a better feel for typical acquisition issues	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	88%

Published Articles in Two Professional Journals



# DAU Program Advisory Teams

Accomplishments

## GC in retrospect

Development



**DAU & SMC  
Enterprise Team**

Execution



**Diversified  
SMC Teams**

Victory

**General Kehler, AFSPC  
Commander, Presents GC  
Trophy to winning Acquisition  
Team**



***Transformational Event*—nothing like it in the Acquisition Community**

# DAU Program Advisory Teams

Other  
Accomplishments

## SMC Directorates



- Space Superiority Systems Directorate
- Global Positioning Systems Directorate
- **Directorate Launch and Range Systems Directorate**
- **Space-Based Infrared Systems Directorate**
- Defense Weather Systems Directorate
- Satellite Control and Network Systems
- **MILSATCOM Systems Directorate**
- Space Logistics Directorate
- Missile Defense Systems Division
- Space Development and Test Directorate
- Space Radar Office

# EELV Should Cost Review

*The Evolved Expendable Launch Vehicle (EELV) is designed to improve our nation's access to space by making space launch vehicles more affordable and reliable. The program is replacing the existing fleet of launch systems with two families of launch vehicles, each using common components and common infrastructure. EELV's operability improvements over current systems include a standard payload interface and increased off-pad processing.*



## **SECAF directed a Should Cost Review (SCR) for the Evolved Expendable Launch Vehicle (EELV) program. DAU:**

- Provided Subject Matter Experts to augment Team, Just-in-Time Training on Process Improvement Tools, DAU Resources, Data Collection and analysis
- Analyzed SCR results and reviewed EELV SCR Final Report
- Developed Best Practices and Lessons Learned on the SCR process
- Produced a comprehensive Survey--interviewed EELV SCR Team leads/members on entire process in order assess activity and also develop a SCR "How To" for future use.

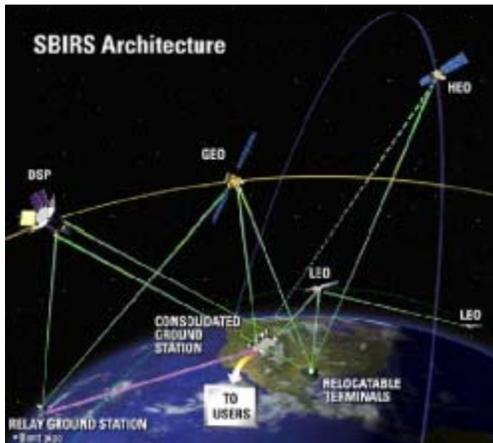
### **Testimonials:**

Ron Poussard, SES, Director EELV SCR: "DAU provided great support. I wish we had brought them onboard earlier in the process."



# Space-Based Infrared System (SBIRS)

*SBIRS is an integrated "system of systems" that will include satellites in geosynchronous orbit (GEO), sensors hosted on satellites in highly elliptical orbit (HEO) and ground data processing and control. SBIRS ground software integrates infrared sensor programs of the U.S. Air Force (DSP) with new IR sensors*



**REQUEST: Space Based-Based Infrared Systems (SBIRS) Group Commander (Col Winn Idle) and Deputy Group Commander (Col John Mueller) asked DAU to assess SBIRS “Increment 2” Ground Acquisition “Way Ahead.”**

- DAU reviewed SBIRS “Increment 2” COAs that were under consideration for Lt Gen Sheridan’s (SMC/CC, Space PEO)) imminent review and approval.

- DAU Provided 15 recommendations (**Protected Information**) under the headings of Architectural and Acquisition Strategy considerations, Risk Management, CLIN structure, Contracting Strategy, and Competition options.



# DAU Consulting Support to MILSATCOM ACG

*The Military Satellite Communications Systems (MILSATCOM) Advanced Concepts Group supports the Air Force Space Command (AFSPC) ICD/Materials Solutions Analyses process in defining the future MILSATCOM system. ACG plans and executes Capability Insertion Programs for legacy space systems and plans future space, ground and networking systems to support warfighter MILSATCOM needs.*



## **SMC/MILSATCOM ACG requested DAU support of Commercial SATCOM Architectural Options**

- Guided development of overall acquisition strategy
- Provided assessment of Broad Area Announcement (BAA) Strategy
- Helped evaluate range of contractor options and identified acquisition obstacles

*Air Force Space Command leadership expects this activity will revolutionize the way the Air Force (and DoD) achieves space capabilities.*

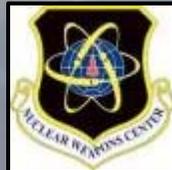
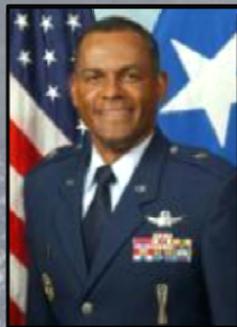
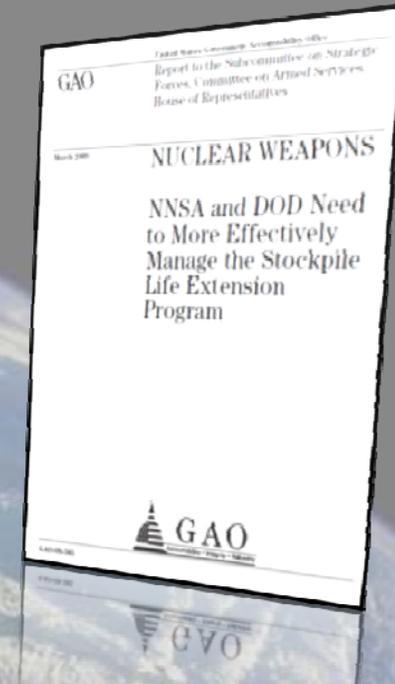
**ACG was very pleased with DAU's contributions--significantly strengthened their BAA and source selection heading.**

# DAU Program Advisory Teams

Upcoming Engagement

DoD plans to spend \$80 billion over the next decade to sustain and modernize the U.S. nuclear weapon arsenal.”

<b>Nuclear program start date</b>	<b>21 October 1939</b>
<b>First nuclear weapon test</b>	<b>16 July 1945</b>
<b>First fusion weapon test</b>	<b>1 November 1952</b>
<b>Last nuclear test</b>	<b>23 September 1992</b>
<b>Largest yield test</b>	<b>15 Megatons (1 March 1954)</b>
<b>Total tests</b>	<b>1,054 detonations</b>
<b>Peak stockpile</b>	<b>31,225 warheads (1967)<sup>1</sup></b>
<b>Current stockpile</b>	<b>5,113 total</b>



Responsible for the entire scope of the nuclear weapons support functions at Kirtland AFB; Tinker AFB, Okla.; Ramstein Air Base, Germany; Hill AFB, Utah, and Lackland AFB, Texas.



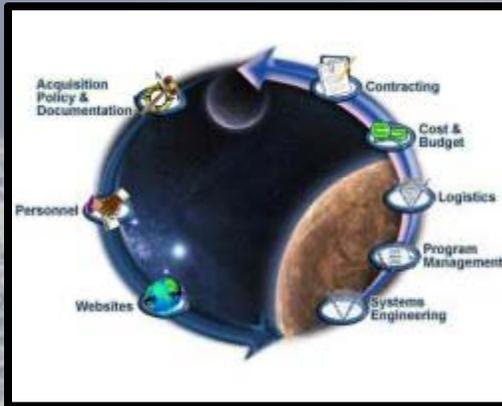
Responsible for Air Force nuclear weapons support efforts and all current and future air-launched cruise missile investment programs



# Other Space Acquisition Notables

Other

### 3. Launched Space Community of Practice (CoP) in 2010



**XX members with YYYYYY  
page views in last 30 days  
(<https://acc.dau.mil/space>)**

### 4. Key member of Space Professional Oversight Board (SPOB) since its inception 3 year ago by the Under Secretary of the Air Force/Space; Meets monthly, reports out to the Pentagon, Annually

**Space Professional  
Oversight Board  
16 June10**



**Developing Space  
Professionals**

Mr Gary Payton	SAF/US(D)
Maj Gen Susan Mashiko	Dep Dir, National Reconnaissance Office
Mr Joseph Rouge	Dir, National Security Space Office
Maj Gen Michael Basla	Vice Commander, Air Force Space Command
Brig Gen Ed Bolton	Director, Cyber and Space Operations, HQ USAF/A3/5
Lt Gen Mark Shackelford	SAF/AQ
CAPT Jim Hirst	Dep Commander, SPAWAR Space Field Activity
Mr. Larry Burger	Dir, Space & Missile Defense Future Warfare Ctr (SMDC)
Mr. Jeffrey DeWeese	Dep Dir, Strat & Plans Division, USMC
Brig Gen Jay Santee	OSD Policy
Brig Gen Michael Carey	USSTRATCOM
Lt Col Stephen Earle	J-5, Joint Staff
Mr Rob Tremaine	Defense Acquisition University
Dr Ed Hoffman	NASA

# Other Space Acquisition Notables

Other



- **Dr Brian serves as DAU Site Director in COS**
  - **Teaches NSSI Curriculum/Space 200/Space 300**
  - **Teaches DAWIA courses for WR PM Dept**
  - **Develops acquisition curriculum for space pro community**
  - **Participates as active member on multiple space forums**
  - **Analyzes wider COS training needs for USNORTHCOM, AFSPC, Ft Carson, USAFA, and Buckley AFB,**



# Summary

## Summary

- DAU is committed to supporting the space acquisition workforce through a wide range of learning assets
- Strong relationships already in place between DAU and SMC
- Space acquisition community requires strong technical background and unique product line comfort
  - DAU West has hired faculty with good skill sets to meet both training and unique MA challenges ahead
  - LA Site location affords rapid responsive to SMC needs

