

2ND RESPONSIVE SPACE CONFERENCE SCHEDULE

■ MONDAY, APRIL 19, 2004

- 3:00 pm – 5:00 pm **REGISTRATION, CALIFORNIA FOYER**
- 4:00 pm – 6:00 pm **EXHIBITS OPEN, CALIFORNIA FOYER**
- 5:00 pm – 7:00 pm **HOSTED BAR AND RECEPTION, CALIFORNIA FOYER. Sponsored by Lockheed Martin**

■ TUESDAY, APRIL 20, 2004

- 7:00 am – 5:00 pm **REGISTRATION, CALIFORNIA FOYER**
- 7:00 am – 8:00 am **CONTINENTAL BREAKFAST AND NETWORKING SESSION, CALIFORNIA FOYER.**
Sponsored by NGST-University Alliance
- 8:00 am – 6:00 pm **EXHIBITS OPEN, CALIFORNIA FOYER**
- 8:00 am – 8:30 am **WELCOME AND INTRODUCTIONS, GRAND BALLROOM. James R. Wertz, General Chairman**
- 8:30 am – 10:15 am **EXECUTIVE PANEL, GRAND BALLROOM. Moderator—Joe Sciabica, AFRL**
Brigadier General Richard Geraci, National Security Space Architect
CAPT. David G. Markham, USN, Chief of Staff, NRO AS&T
Robert Sackheim, Assistant Director and Chief Engineer for Space Propulsion, NASA MSFC
Tom Wilson, President, Swales Aerospace
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- 10:15 am **BREAK, CALIFORNIA FOYER. Sponsored by NG Corp.**
- 10:45 am – 11:50 am **NEEDS AND REQUIREMENTS PANEL, GRAND BALLROOM. Moderator—Dr. Alok Das, AFRL/VS**
Lt Col. Tim Thompson, AFSPC
Jaime Esper, NASA GSFC
Dr. Todd Mosher, Utah State University
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- 11:50 am **LUNCH, CALIFORNIA BALLROOM. Sponsored by Scitor**
Keynote Speaker: Prof. Sir Martin Sweeting—CEO, Surrey Space Technology Limited
- 1:30 pm – 3:30 pm **CHALLENGES AND BARRIERS, GRAND BALLROOM. Chair—Gwynne Shotwell, SpaceX**
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| 1:30 pm | A) Transforming National Security Space Payloads | Vince Deno, Los Angeles AFB SMC/TDEZ and Ned Jones, Los Angeles AFB SMC/TDE |
| 1:50 pm | B) A Novel Approach to Responsive Space: Lesson Learned by Space Test Program | Sabrina Herrin, Space Test Program and Eleni Sims, The Aerospace Corp. |
| 2:10 pm | C) Transforming the National Spacelift Architecture | Ned Jones, Los Angeles AFB SMC/TDE |
| 2:30 pm | D) Responsive Launch Vehicle Cost Model | James R. Wertz, Microcosm, Inc. |
| 2:50 pm | E) Responsive Space Requires Responsive Manufacturing | Todd Mosher, USU |
| 3:10 pm | F) EYASSAT: Creating a Progressive Space Workforce - Today | Obadiah Ng Ritchey, USAFA Student Award Winner |
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- 3:30 pm **BREAK, CALIFORNIA FOYER. Sponsored by Broadreach Engineering**
- 4:00 pm – 5:40 pm **MISSION DESIGN, GRAND BALLROOM. Chair—Paul Kolodziejski, Schafer Corp.**
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| 4:00 pm | A) Operational Concept Modeling for Responsive Space | Herchel Melton, AllySoft, LLC and Yvonne Sheets, Sparta |
| 4:20 pm | B) Remote-Sensing Advanced Technology Micro-Satellite (RSAT): a Modular, Reconfigurable, and Rapid Response Space System Architecture | Jaime Esper, NASA GSFC |
| 4:40 pm | C) A Modular Design for Rapid-Response Telecoms and Navigation Missions | Stuart Eves, Surrey Satellite Tech, Ltd. |
| 5:10 pm | D) Orbital Recovery's Responsive Commercial Space Tug For Life Extension Missions | Dennis Wingo, Orbital Recovery Corp. |

5:20 pm E) Using IDOS to Develop EAGLE Into "Real" Flight Software to Support Responsive Missions David Chen, Universal Space Lines LLC

5:40 pm – 7:30 pm **RECEPTION, CALIFORNIA FOYER. Sponsored by Swales Aerospace**

■ **WEDNESDAY, APRIL 21, 2004**

7:00 am – 1:00 pm **REGISTRATION, CALIFORNIA FOYER**

7:00 am – 8:30 am **CONTINENTAL BREAKFAST AND NETWORKING SESSION, CALIFORNIA FOYER. Sponsored by bd Systems**

8:00 am – 6:00 pm **EXHIBITS OPEN, CALIFORNIA FOYER**

8:00 am – 10:00 am **INTEGRATION AND OPERATIONS, GRAND BALLROOM. Chair—John Bystroff, Boeing**

8:00 am A) Responsive Space Operations Architecture Development for the National Security Space Community Patrick Frakes, US Army, Access and Ops Branch

8:20 am B) The Need for Operational Space from an Integrated, Military Effects-Based Operations View Ted Ralston, Boeing

8:40 am C) Transformational Spaceport and Range Technologies Darin Skelly, NASA KSC and Cristina Guidi, NASA KSC

9:00 am D) NASA's Wallops Flight Facility Rapid Response Range Operations Initiative Bruce Underwood, NASA/GSFC/Wallops Flight Facility

9:20 am E) A Conformally-Mounted SATCOM Antenna System to Support STARS Phase-2 Testing William Cooke, EMS Technologies, Inc.

9:40 am F) Remote Anywhere: Web-based Spacecraft Integration and Checkout Greg Hegemann, MicroSat Systems

10:00 am **BREAK, CALIFORNIA FOYER. Sponsored by Michigan Aerospace**

10:30 am – 12:30 pm **SPACE SYSTEMS, GRAND BALLROOM. Chair—Karen Barker, Schafer**

10:30 am A) Real-time Mosaic - Rapid Response High Resolution Imaging from Space Phil Davies, Surrey Satellite Tech, Ltd.

10:50 am B) Plug and Play – An Enabling Capability for Responsive Space Missions Thomas Morphopoulos, Microcosm, Inc.

11:10 am C) TacSat-1 and a Pass to Tactical Space Jay Raymond, OSD Ofc. of Force Transformation and Mike Hurley, NRL

11:30 am D) Leveraging COTS Hardware for Rapid Design and Development of Small Satellites at the USAF Academy Cristin A. Smith, USAFA Student Award Winner

11:50 am E) Optimizing for Responsive Space Design Terrance Yee, MicroSat Systems

12:10 pm F) SSPC & SPSM Providing Responsive Space Mission in 2005 Gerald Murphy, Design_Net Engineering

12:30 pm **LUNCH, CALIFORNIA BALLROOM. Sponsored by EMS Speaker: Lieutenant General Brian Arnold—Director, Space and Missile Center**

2:00 pm – 3:40 pm **TECHNOLOGIES FOR RS-1, GRAND BALLROOM. Chair—Maj Ed Ochoa, AFRL**

2:00 pm A) Guided Self-Assembly for ProtoSAT Combination Gregory Brault, AFRL/VSSE Integrated Microsystem

2:20 pm B) Responsiveness Through Adaptive Avionics Denise L. Lanza, SAIC

2:40 pm C) Potential Strategies for Spaceport Systems Towards Airport-Like Operations Carey McCleskey, NASA KSC

3:00 pm D) R&D Responsive Spaceflight (RRS) Taylor Locker, Pratt & Whitney Space Propulsion

3:20 pm E) Challenges, Enabling Technologies and Maturity for Responsive Space Kevin G. Bowcutt, Boeing

3:40 pm **BREAK, CALIFORNIA FOYER. Sponsored by NG Corp.**

4:10 pm – 5:50 pm	TECHNOLOGIES FOR RS-2, GRAND BALLROOM. Chair—Timothy Sarver-Verhey, NASA GRC	
4:10 pm	A) Highly Operable Propulsion Technologies and Propulsion System Approaches for Operationally Responsive Space Systems	C. Russell Joyner, Pratt Whitney Space Propulsion
4:30 pm	B) High Power All-Electric Power-Actuation Technology for Responsive Space Missions	Eric P. Knight, Lockheed Martin Space and Strategic Missiles
4:50 pm	C) A Status Report on the Development of a Nanosat Launch Vehicle & Associated Launch Vehicle Technologies	John Garvey, Garvey Spacecraft Corporation
5:10 pm	D) Launch Vehicle and Spacecraft System Design Using the Pistonless Pump	Steve Harrington, Flometrics
5:30 pm	F) The Lightband as Enabling Technology for Responsive Space	Walter Holemans, Planetary Systems Corp.
5:50 pm – 7:00 pm	RECEPTION, CALIFORNIA FOYER	
7:00 pm – 9:00 pm	CONFERENCE BANQUET, CALIFORNIA BALLROOM. Sponsored by Spectrum Astro Speaker: Major General Michael Hamel, 14th Air Force	

■ THURSDAY, APRIL 22, 2004

7:00 am – 8:00 am	CONTINENTAL BREAKFAST AND NETWORKING SESSION, CALIFORNIA BALLROOM. Sponsored by Booz Allen	
8:00 am – 10:00 am	FALCON LAUNCH VEHICLE PROGRAM SESSION, GRAND BALLROOM Lt Col Rick Einstman, SMC	
	Gwynne Shotwell, SpaceX. The FALCON Launch Vehicle: Towards Operationally Responsive Space	
	Mark Ferguson, Orbital Science. Concepts for FALCON and Responsive Space Launch	
	Livingston Holder, Andrews Space. A New Vision for Operationally Responsive Space and Force Projection	
	Shyama Chakroborty, Microcosm, Inc. FALCON Microcosm Scorpius Vehicle Family	
	Jim Bray, Lockheed Martin. FALCON SLV: Driving an Operationally Efficient Solution	
	Gary Hudson, Air Launch. QuickResearch for Spacelift and Global Strike	
	Tedi Ohanian, Schafer. The Schafer Family of Affordable, Responsive, and Multi-Mission Launch Vehicles	
9:00 am – 2:30 pm	EXHIBITS OPEN, CALIFORNIA FOYER	
10:00 am	BREAK, CALIFORNIA FOYER	
10:30 am – 12:10 pm	LAUNCH VEHICLES & OPERATIONS-II, GRAND BALLROOM Chair—Russ Joyner, P&W	
10:30 am	A) Atlas V Evolved Expendable Launch Vehicle: The Evolution of Responsive Launch	Timothy J. Gillespie, Lockheed Martin Atlas V/EELV Program
10:50 am	B) Hypersonic Freighter Concept, Description, and Capabilities	Dale Jensen, Jentec
11:10 am	C) Responsive Air Launch	Brian Horais, Schafer Corporation
11:30 pm	D) Design Trade Space Analysis for Air-Launched Spacelift Vehicles	Paul Eremenko, Booz Allen Hamilton Inc.
11:50 pm:	E) RASCAL: A Demonstration of Operationally Responsive Space Launch	Jacob Lopata, The Space Launch Corp. and Burt Rutan, Scaled Composites
	F) Almost There: Responsive Space	Jim Benson, SpaceDev
12:10 pm	LUNCH, CALIFORNIA BALLROOM. Sponsored by Boeing Speaker: Major General (ret) Robert S. Dickman, Deputy UnderSecretary, AF for Military Space	
1:40 pm – 2:40 pm	WRAP-UP PANEL WITH SUMMARIES BY SESSION CHAIRS, GRAND BALLROOM	
1:40 pm	CD-ROM OF ALL PAPERS AVAILABLE TO PARTICIPANTS	