

Receptions

A reception will be held Monday evening from 5:00 p.m. - 9:00 p.m. in the conference hotel. Come and meet the other participants and bring your spouse. A Networking reception will also be held on Tuesday, from 5:25 - 7:30 p.m. on the hotel Terrace. After the reception, if you want to have dinner with old or new colleagues, there are plenty of restaurants nearby. There is an additional reception before the conference banquet on Wednesday.

Responsive Proceedings

Papers and presentations will be available online via a password for registered attendees. A password will be provided at check-in. CD's of the proceedings will be available for \$50 to registered attendees only and mailed one week after the conference. These can be purchased at the conference or at the time of pre-conference registration.

The Space Show

The Space Show, a live radio broadcast with host Dr. David Livingston, will once again be broadcast as a part of the Responsive Space Conference. "Dr. Space" will discuss the status and prospects for Responsive Space with RS8 participants on Tuesday evening from 7:00 to 8:30. Come join us.

Past RS Conference Papers

All prior RS Conference papers and presentations (where they were provided) are available at no cost on the conference website, www.responsivespace.com. You can search the full set of proceedings by author, organization, or word search. If you don't want to download individual papers, the complete proceedings of all prior conferences are available on CDs at www.astrobooks.com.

Is It Working? Is It Not Working?

Come Join the Continuing Conversation!

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Lockheed Martin	SpaceX
Microcosm, Inc.	

Information & Registration

You can register on-line via the website or download a registration form to FAX or mail. Want to talk to a real human being about the conference? Call **Julie Jackson** at:

310-219-2700 or FAX 310-219-2710.

Or send us an E-mail at: responsivespace@smad.com
For more information, visit the conference website at:
<http://www.responsivespace.com>

Partial List of Speakers

RDML Sandy Daniels

Deputy Commander, JFCC Space

Dr. David A. Hardy

Associate Director for Space Technology, Space Vehicles Directorate, Air Force Research Laboratory, Kirtland AFB

Josh Hartman

Senior Fellow, Center for Strategic and International Studies

Brig Gen Woody Haywood

Director of Requirements, Headquarters Air Force Space Command, A-5

Joe Rouge

Director, National Security Space Office

Dr. Pete Rustan

Director, Mission Support Directorate, NRO

Lt. Gen. Tom Sheridan

Commander, Space & Missile Systems Center

Brig Gen Kurt Story

Deputy Commanding General for Operations, U.S. Army Space and Missile Defense Command/Army Forces Strategic Command

Dr. Peter Wegner

Director, Operationally Responsive Space Office (ORSO)

Points of Contact

General Chair:

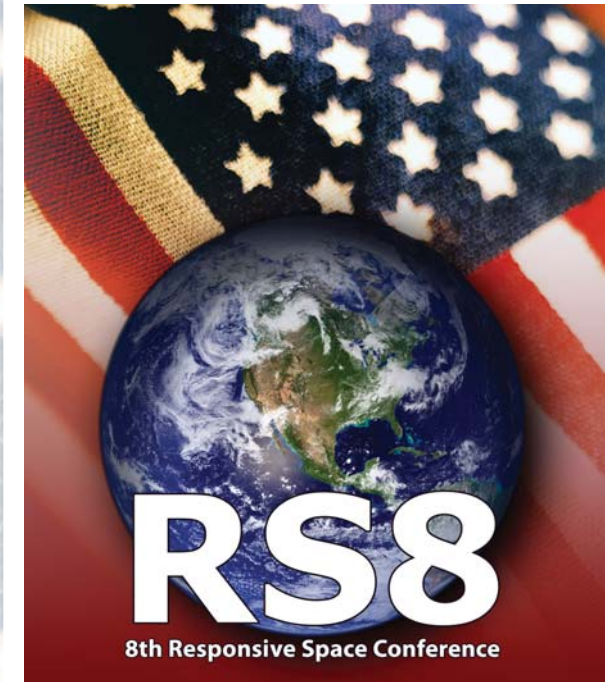
Dr. James R. Wertz
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Sponsorship POC:

Dr. Robert Conger
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FINAL PROGRAM

March 8–11, 2010
LAX Westin Hotel



Sponsored by the
AIAA LA and Orange County Sections, and the
Space Systems Technical Committee

www.responsivespace.com

MONDAY, MARCH 8, 2010

4:00 pm–7:00 pm **REGISTRATION OPENS**
 4:00 pm–7:00 pm **EXHIBITS OPEN**
 5:00 pm–7:00 pm **RECEPTION**, Sponsored by General Dynamics

TUESDAY, MARCH 9, 2010

7:00 am–5:00 pm **REGISTRATION**
 7:00 am–8:00 am **CONTINENTAL BREAKFAST**, Sponsored by Lockheed Martin
 7:00 am–7:00 pm **EXHIBITS OPEN**
 8:00 am–8:45 am **WELCOME AND INTRODUCTIONS**
Dr. James Wertz, *Microcosm, Inc.*
 8:45 am–9:30 am Speaker: **RDM L Sandy Daniels**, *Deputy Commander, JFCC Space*
 9:30 am–10:00 am **BREAK**, Sponsored by Comtech/AeroAstro
 10:00 am–10:35 am Speaker: **Josh Hartman**, *Senior Fellow, Center for Strategic and International Studies*
 10:35 am–11:10 am Speaker: **Lt. Gen. Tom Sheridan**, *Commander, Space & Missile Systems Center*
 11:10 am–11:55 am **SESSION IA – MISSION & SYSTEMS ENGINEERING**
 Chair: **Richard Van Allen**
 11:15 am 1001: Thinking at the Constellation Level — **Stuart Eves**, *Surrey Satellite Technology Ltd.*
 11:35 pm 1005: A European Approach to Responsive Space — **Luca del Monte**, *European Space Agency-HQ*
 11:55 am–1:10 pm **LUNCH**, Sponsored by Sierra Nevada Corporation
 1:10 pm–1:25 pm **BREAK**
 1:25 pm–3:10 pm **SESSION IB – MISSION & SYSTEMS ENGINEERING**
 1:30 pm 1006: ResCon: A Conceptual Architecture for a Responsive Space Constellation — **Barry R. Witt**, *USAF*
 1:50 pm 7001: Rapid Construction, Launch, and On-Orbit Operation of Two AIS Satellites — **Dino Lorenzini**, *SpaceQuest, Ltd.*
 2:10 pm 1003: The Role of Responsive Architectures in Educating Students (STUDENT AWARD) — **John Graves**, *Texas A&M University*
 2:30 pm 1004: Towards a New Strategy for Operationally Responsive Space — **Yool Kim**, *RAND*
 2:50 pm 1008: NanoEye — Militarily Relevant Surveillance for Less Than \$5 Million Total Recurring Mission Cost — **Richard Van Allen**, *Microcosm, Inc.*
 3:10 pm–3:40 pm **BREAK**
 3:40 pm–5:25 pm **SESSION II – SPACECRAFT TECHNOLOGY 1**
 Chair: **Jeffery Puschell**
 3:45 pm 2001: Streamlining System Level Test for Responsive Spacecraft: Results and Lessons Learned from the ORS Rapid Al&T Demonstration — **Lisa Baghal**, *Air Force Institute of Technology*
 4:05 pm 2002: CubeSat a Case Study of Standardization as a Path to Responsiveness — **Jordi Puig-Suari**, *Cal Poly, San Luis Obispo*
 4:25 pm 2003: Lithium Plug-and-Play Lego Battery: A Modular and Scalable Battery for Missile, Launch Vehicle and Satellite Applications — **Edmund Burke**, *Space Information Laboratories*
 4:45 pm 2005: ADPMS — An Advanced Data & Power Management System — **Jo Bermyn**, *Verhaert Space*
 5:05 pm 7002: TacSat-3 Demonstration and Follow-On Use — **Thomas Cooley**, *USAF*
 Alt. 2004: Application of Lessons Learned from Traditional Satellite Assembly, Integration and Test for Operationally Responsive Satellites — **Lisa Baghal**, *Air Force Institute of Technology*
 5:25 pm–7:30 pm **NETWORK RECEPTION**, Sponsored by Boeing
 7:00 pm–8:30 pm **THE SPACE SHOW — Live Radio Broadcast**

WEDNESDAY, MARCH 10, 2010

7:00 am–5:00 pm **REGISTRATION**
 7:00 am–8:00 am **CONTINENTAL BREAKFAST**, Sponsored by General Dynamics
 7:00 am–6:30 pm **EXHIBITS OPEN**
 8:00 am–8:05 am **CALL TO ORDER/ANNOUNCEMENTS**
 8:05 am–9:45 am **WARFIGHTER PANEL**
 Moderator: *National Security Space Office*
 9:45 am–10:15 am Speaker: **Joe Rouge**, *Director, National Security Space Office*
 10:15 am–10:45 am **BREAK**
 10:45 am–11:15 am Speaker: **Dr. David A. Hardy**, *Associate Director for Space Technology, Space Vehicles Directorate, Air Force Research Laboratory, Kirtland AFB*
 11:15 am–12:00 pm **SESSION III – PAYLOAD TECHNOLOGY**
 Chair: **Scott Jensen**; Co-Chair: **John Bloomer**
 11:20 am 3001: Design Decisions that Enabled the Responsive Space ARTEMIS Sensor on TacSat-3 — **John Silny**, *Raytheon Space and Airborne Systems*
 11:40 am 3002: R³: Thermal Imaging and Rapid Feature Detection for Small Satellites (STUDENT AWARD) — **Luke Walker**, *Georgia Institute of Technology*
 12:00 pm–1:35 pm **LUNCH**, Sponsored by Raytheon
 Speaker: **Dr. Pete Rustan**, *Director, Mission Support Directorate, NRO*
 1:35 pm–1:50 pm **BREAK**
 1:50 pm–3:15 pm **SESSION IV – SPACECRAFT TECHNOLOGY 2**
 Chair: **Stanley Kennedy**; Co-Chair: **Greg Orndorff**
 1:55 pm 4001: Cost Advantages of Modular Scalable Avionics — **Robert Burt**, *Space Dynamics Laboratory*
 2:15 pm 4002: A Momentum Control System for Agile Responsive Space Satellites — **M. Brett McMickell**, *Honeywell Defense Space*
 2:35 pm 4003: Structural Dynamic Modeling Methods for Responsive Space Satellites — **Tim Hasselman**, *ACTA Inc.*
 2:55 pm 4005: Responsive Development of DubaiSat-1 Mission — **Byungjin Kim**, *Satrec Initiative*
 3:15 pm–3:45 pm **BREAK**, Sponsored by Harris Corporation
 3:45 pm–5:30 pm **SESSION V – LAUNCH**
 Chair: **Robert Conger**
 3:50 pm 5006: Development of an Affordable and Dedicated Nano-Launcher — **Seji Matsuda**, *IHI Aerospace Co., Ltd.*
 4:10 pm 5002: Demonstrated Responsiveness of the SpaceX Falcon 1 Launch Vehicle — **Aaron Dinardi**, *SpaceX*
 4:30 pm 5003: Design, Performance, and Responsiveness of a Low-Cost Microsatellite Launch Vehicle — **Thomas Bauer**, *Microcosm, Inc.*
 4:50 pm 5004: Nanosatellite Launch Adapter System (NLAS) — **Bruce Yost**, *NASA/ARC*
 5:10 pm 5005: Assessment of SmallSat Utility and the Need for Dedicated, Low-Cost, Responsive Small Satellite Launch — **James Wertz**, *Microcosm, Inc.*
 5:30 pm–6:30 pm **RECEPTION**, Sponsored by ATK
 6:30 pm–8:30 pm **CONFERENCE BANQUET**, Sponsored by SpaceX
 Speaker: **Brig Gen Kurt Story**, *Deputy Commanding General for Operations, U.S. Army Space and Missile Defense Command/Army Forces Strategic Command*

THURSDAY, MARCH 11, 2010

7:00 am–8:00 am **CONTINENTAL BREAKFAST**
 7:00 am–4:30 pm **EXHIBITS OPEN**
 8:00 am–8:05 am **CALL TO ORDER/ANNOUNCEMENTS**
 8:05 am–8:35 am **IMPLEMENTING ORS**
 Speaker: **Dr. Peter Wegner**, *Director, Operationally Responsive Space Office (ORSO)*
 8:35 am–8:45 am **QUESTION AND ANSWERS**
 8:45 am–10:05 am **TIER WAY AHEAD**
 10:05 am–10:35 am **BREAK**
 10:35 am–10:50 am **QUESTION AND ANSWERS**
 10:50 am–12:00 pm **PANEL: ORS IS NOT NEW — IT'S JUST NEW FOR SPACE!**
 12:00 pm–1:35 pm **LUNCH**
 Speaker: **Brig Gen Woody Haywood**, *Director of Requirements, Headquarters Air Force Space Command, A-5*
 1:35 pm–1:50 pm **BREAK**
 1:50 pm–3:15 pm **SESSION VI – OPERATIONS 1**
 Chair: **Gary Harmon**; Co-Chair: **Dan Levack**
 1:55 pm 6001: On-Demand Satellite Refueling — **Dan King**, *MDA Corporation*
 2:15 pm 6002: Mesh Networking of Small Low Earth Orbit Satellites — **Aimal Siraj**, *void inc.*
 2:35 pm 6003: SpaceTrack™ — A Novel Approach To Space Traffic Control — **Stanley Kennedy**, *Comtech AeroAstro, Inc.*
 2:55 pm 6004: Automated Collection Planning Tool (ACPT) Experience on TACSAT-3 Program — **John Emil Ploschnitzig**, *Riverside Research Institute (RRI)*
 3:15 pm–3:45 pm **BREAK**
 3:45 pm–4:50 pm **SESSION VII – OPERATIONS 2**
 Chair: **Shahzad Khaligh**
 3:50 pm 1007: The Role of Universities in Developing a Responsive Space Industry — **Shawn Allgeier**, *University of Florida*
 4:10 pm 7003: VMOC and ORS Ground System Enterprise Lessons Learned — **Joel Hicks**, *US Naval Research Lab*
 4:30 pm 7004: Leveraging a Multi-Mission Satellite Operations Center to Fulfill Operationally Responsive Space Ground Segment Requirements — **Suzanne Bailey**, *Lockheed Martin Defense/ORC2*
 Alt. 7005: Proba Spacecraft Family — Affordable Small Mission Solutions for Earth Orbit — **Jo Bermyn**, *Verhaert Space*
 4:50 pm–5:20 pm **WRAP-UP AND DISCUSSION**
 INTERNET, Sponsored by Northrop Grumman
 MEDIA, Sponsored by Space News