

## WEDNESDAY, April 22, 2015

7:30 AM Registration & Breakfast  
9:00 AM Opening Comments – Dr. Jordi Puig-Suari, CubeSat  
9:15 AM Event Sponsor Welcome  
9:20 AM Keynote Presentation – Elwood Agasid, NASA Ames

### Session 1: Education and Design Philosophy

9:40 AM **Alice Smith** – Introduction to NASA Academy of Aerospace Quality, Auburn University  
10:00 AM **Dr. Paul Darby** Experimental Smartphone-Synchronized Ground Station Grid, University of Louisiana at Lafayette  
10:20 AM **Dr. Hank Voss** – Technology, Service, Education: Globalstar 24/7 for LEO, NearSpace Launch Inc.  
10:40 AM --Break--  
11:00 AM **Kyle Leveque** – Open Design: A New Approach for CubeSats, Aquila Space Inc.  
11:20 PM **Andrew Santangelo** – An Open Source Flight Management System for CubeSats, sci\_Zone  
11:40 PM **Gordon Hardman** – Open Source “All Parallel” EPS for CubeSats, Aquila Space Inc.  
12:00 PM **Dr. Jordi Puig-Suari** – NanoSwarm: CubeSats Enabling a Discovery Class Mission, Tyvak  
12:20 PM --Lunch--

### Session 2: Missions Part 1

1:40 PM **James DiCorcia** – Mothership: Affordable Exploration of Planetary Bodies Through Individual Nano-Sats and Swarms, Deep Space Industries  
2:00 PM **Andrew Klesh** – INSPIRE and Beyond: Deep Space CubeSats at JPL, Jet Propulsion Laboratory  
2:20 PM **Ehson Mosleh** – CubeSat Proximity Operations Demonstration (CPOD) Mission Development Status, Tyvak  
2:40 PM **Joseph Gangestad** – Flight Results from AeroCube-6: A Radiation Dosimeter Mission in the 0.5U Form Factor, The Aerospace Corporation  
3:00 PM **John Avrett** – Lessons Learned from the US Air Force SENSE CubeSat Mission, US Air Force  
3:20 PM --Break--  
3:40 PM **Rex Ridenoure** – LightSail Program Status: On Track for Two Launches, Ecliptic Enterprises Corporation  
4:00 PM **Robert Hanel** – BioSentinel: Mission Development of a Radiation BioSensor to Gauge DNA Damage and Repair Beyond Low Earth Orbit on a 6U Nanosatellite, NASA Ames Research Center  
4:20 PM **Jerry Buxton** – AMSAT’s Fox-1 Series CubeSats, AMSAT  
4:40 PM **Paul Liias** – ESTCube-1 From the Beginning to the End, Tartu Observatory  
5:00 PM Closing Remarks  
6:30 PM Banquet at the Madonna Inn Expo Center

## THURSDAY, April 23, 2015

8:00 AM Registration & Breakfast  
9:00 AM Keynote Presentation – Kar-Ming Cheung, JPL

### Session 3: Missions Part 2

9:20 AM **Michael Bertino and Brian Cooper** – Corvus-BC Satellite Design and Perseus-M On-Orbit Report, Aquila Space  
9:40 AM **Dave Klumpar** – FIREBIRD: One Mission; Two launches; Two pairs of CubeSats separated by fourteen months; Performance enhancements derived from on-orbit experience, Montana State University  
10:00 AM **James Cutler** – Current Results from the GRIFEX CubeSat Mission, University of Michigan  
10:20 AM **Jordan Helea** – The Cosmic X-Ray Background NanoSat-2 (CXBN-2), Morehead State University  
10:40 AM --Break--  
11:00 AM **Andrew Kalman** LMRST-Sat Flight Software Debugging & Mission Assurance, Stanford University  
11:20 AM **Leon Steenkamp** – TshepisoSAT (ZACUBE-1): One Year After Launch, Cape Peninsula University of Technology  
11:40 AM **Michael Segalla** – Integration of QIKcom-2: Automatic Packet Reporting System Payload on Reconfigurable Satellite, United States Naval Academy  
12:00 PM **Pamela Clark** – CubeSats for Science Driven Deep Space Missions: A Marriage Made in Heaven?, Flexure Engineering and Catholic University of America (IACS)  
12:20 PM --Lunch/Poster Session--

### Session 4: Launch Capabilities, Testing, and Simulation

1:40 PM **Garrett Skrobot** – NASA ELaNa Program Update, NASA Launch Services Program  
2:00 PM **Conor Brown** – Maximizing ISS Utilization for Small Satellite Deployments, NanoRacks LLC  
2:20 PM **Edward Wright** – The Lynx Cub Payload Carrier and Suborbital Flight Opportunities for Small Payloads on the XCOR Lynx, United States Rocket Academy  
2:40 PM **Joe Maly** – CubeSat Launch and Deployment Accommodations, Moog  
3:00 PM **Wenschel Lan** – Progress in Reducing Vibration Levels on NPSCuL, Naval Postgraduate School  
3:20 PM --Break--  
3:40 PM **Walter Holemans** – Lessons Learned Measuring 3U and 6U Payload Rotation and Velocity when Dispensed in Reduced Gravity Environment, Planetary Systems Corporation (PSC)  
4:00 PM **Robert Twiggs** – Unstandard CubeSat/PocketQube/TubeSat Deployers, Morehead State University/Tetonsys LLC  
4:20 PM **Joe Carrol** – How to Reduce Debris Impact Threats to and from CubeSats in LEO, Tether Applications, Inc.  
4:40 PM **Robert L. Kelly** – Assessing Compliance with United States Government Orbital Debris Mitigation Guidelines, Jacobs - JETS  
5:00 PM Closing Remarks

## FRIDAY, April 24, 2015

8:00 AM Registration & Breakfast  
9:00 AM Keynote Presentation – Dr. Jordi Puig-Suari, Cal Poly

### Session 5: Subsystems and Payloads Part 1

9:20 AM **Chris Day** – Simple, Robust Micro Propulsion Systems, VACCO Industries  
9:40 AM **Craig Clark** – Effective Hardware-in-Loop CubeSat Attitude Control Verification and Test, Clyde Space  
10:00 AM **David Avanesian** – Advanced Electrical Bus (ALBus) CubeSat Tech Demo Mission, NASA Glenn Research Center  
10:20 AM **Jason Addy** – Thermal Considerations for Critical CubeSat Missions, Space Micro, Inc.  
10:40 AM --Break--  
11:00 AM **John Springmann** – CubeSat Operations with Spaceflight Networks, Spaceflight, Inc.  
11:20 AM **Paul Serra** – A Novel Low Power Optical Communications Instrument for Deep-Space CubeSats, University of Florida  
11:40 AM **Chris Wake**, By the Numbers: Delivering Mission Success with a Global Ground Station Footprint, Spire Global, Inc.  
12:00 AM **Eric McNaule** – HaWK (High Watts per Kilogram) Series of Solar Arrays, MMA Design LLC  
12:20 PM --Lunch--

### Session 6: Subsystems and Payloads Part 2

1:40 PM **Aman Johri** – ExCS Expendable CubeSat for cleaning Space Debris, SRM University  
2:00 PM **Kyle Leveque** – Bare-Metal Python, Aquila Space Inc.  
2:20 PM **James Cutler** – Robust Orbit Determination: A Machine Learning Approach, University of Michigan  
2:40 PM **John Buonocore** – A High-Speed Data Downlink for Wide Bandwidth CubeSat Payloads, SRI International  
3:00 PM **Nestor Voronka** – How Do I Locate, Identify, and Track my CubeSat after Orbital Insertion? CubeSat ELT!, M42 Technologies  
3:20 PM --Break--  
3:40 PM **Sanny Omar** – The AubieSat II Attitude Determination and Control System, Auburn University Student Space Program  
4:00 PM **Jeremy Straub** – First Look at Results from a Nation-Wide Survey Regarding Student CubeSat Project Participation Benefits, University of North Dakota  
4:20 PM **Roberto Ferro Escobar** – Design a Methodology for the Development IT and Efficient Construction Using Small Satellites Based on Cobit 5.0 in the District University Francisco Jose de Caldas in Bogota Colombia, District University  
4:40 PM **Nathan Barnwell** – The CHOMPTT Precision Time Transfer CubeSat Mission, University of Florida  
5:00 PM **Tom Walkinshaw** – Designing COTS Parts for PocketQube, Alba Orbital Ltd (PocketQube Shop)  
5:20 PM Closing Remarks