Cal Poly Activities

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Cal Poly Activities

- Create and Maintain CubeSat Standards

- Develop Cal Poly CubeSats
  - 8 launched and 7 in development

- Integrating and Launching CubeSats
  - Successfully completed 23 Launch Campaigns
    - 151 CubeSats integrated, 87 CubeSat Dispensers (mostly P-PODs)
    - 12 different launch vehicles and 10 ranges

- Cal Poly's CubeSat Lab currently supported by 3 faculty, 3 staff, and 80 students

Activities in 2017

- CubeSat Developers Workshop April 26-28, 2017
  - Approx. 550 attendees from over 20+ countries, 26 Exhibitors
  - Keynote given by James Reuter from NASA and Prof. Yu Xiaozhou from NPU, China
- Annual Conference held at Cal Poly in San Luis Obispo, CA, USA
  - April 30 to May 2, 2018
  - www.cubesat.org/workshop-information

CubeSats Scheduled to Launch in 2018

- ExoCube-2 – 3U CubeSat
  - Measure the density of Hydrogen, Oxygen, Helium and Nitrogen in the upper atmosphere
  - Partners: NASA GSFC, Univ. of Wisconsin, Scientific Solutions Inc., NSF
- ISX (Ionospheric Scintillation eXplorer) – 3U CubeSat
  - Study the multi-frequency radio wave interference produced by the atmosphere at sunset near the equator
  - Partners: SRI International, NSF
- LEO (Launch Environment Observer) – 2U CubeSat
  - Measure and record in-situ telemetry data from within the P-POD during launch
  - Merritt Island High School, NASA, AI Solutions
- LightSail-2 – 3U CubeSat
  - Attempt the first controlled solar sail flight in Earth orbit
  - Ecliptic Enterprises, The Planetary Society
- DAVE (Damping And Vibration Experiment) – 1U CubeSat
  - Particle Damper Experiment
  - Originally funded by a U.S. commercial company, now an internal project

Other Activities

- Maintain 1U to 12U CubeSat Standards
- Creating Standards for satellites larger than CubeSats (i.e. ~50kg, ~100kg, etc.)
- Creating documentation and tools to increase success of first time CubeSat and small satellite developers
  - Lessons Learned Documentation
  - Standardize Launch Documentation
  - Mission Assurance Documentation to increase reliability of CubeSats
- Launch Integration for CubeSats
  - 3 missions currently, including the launch integration of the MarCO CubeSats
- Develop new technologies to enable more complex CubeSat missions

Thank You!