

Welcome to the 2010 CubeSat Developers Workshop !



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The CubeSat Community Continues to Evolve

- *Some Observed Trends...*

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- Discussions have migrated from convincing people that CubeSats can do something useful, to now hearing how organizations are actually doing neat things with CubeSats on orbit
- Ongoing and Expanding US Government Interest in High Performance CubeSats
- Realization (by many) that in order to have higher performance CubeSats, a modular approach poses many real limitations for highly integrated vehicles
 - Higher mission utility drives overall vehicle design to optimization, resulting in a more integrated solution

This Last Year Has Been Exciting

- Productive for Boeing

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- **Boeing Selected by the Government to Deliver a Large Quantity of High Performance Standard CubeSat Buses**

04/8/10 06:19 PM ET

NRO Taps Boeing for Next Batch of Cubesats

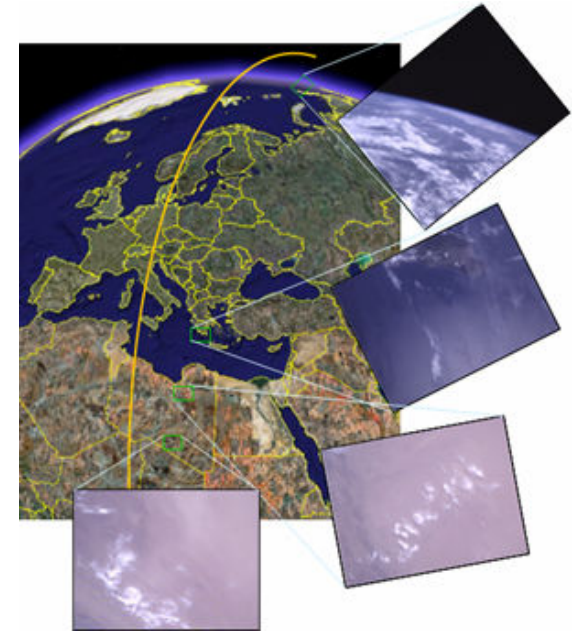
By Turner Brinton

SPACE NEWS
INTERNATIONAL

WASHINGTON — The U.S. National Reconnaissance Office (NRO) in February contracted with Boeing Phantom Works for as many as 50 triple-unit cubesats, each about the size of a can of tennis balls, for use in technology demonstrations, a government official said.

The inexpensive satellite platforms will be used for the follow-on to an NRO research program called Colony, which is scheduled to make its first launch this year, Air Force Maj. David "Dutch" Shultz, director of the NRO's Colony Program Office, said in an April 8 interview.

The Boeing-built Colony 2 platforms will be more powerful than their predecessors and feature better pointing accuracy, Shultz said. The NRO has yet to assign specific experiments to the craft, he said.



- **Boeing's CSTB1 Over 2-1/2 Years in Orbit**
- Has Provided a Wealth of Data and Validated Key Technologies

- **Continued Development of Higher Performance CubeSat Components, Subsystems, and Systems**

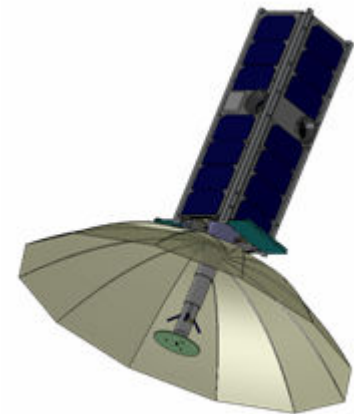
Advanced CubeSat Development

- Focus on Operationally Relevant Missions

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- Low power Star Tracker for precision attitude knowledge
- Multi-thruster & single-thruster propulsion modules for orbit maneuvering and/or maintenance
- Nano-reaction wheel assembly for precision attitude control
- Complete Attitude Determination & Control subsystem
- Flight proven, extensible electrical power collection and distribution subsystem
- Advanced Command & Data Handling subsystem
- High gain S-Band antenna

Low Risk and High Performance Solutions



2010 GAINSTAM Workshop

- Follow-On to Very Successful 2008 & 2009 Workshops

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2010 Government and Industry Nano-Satellite Technology and Mission (“GAINSTAM”) Workshop

November 3rd and 4th , 2010

- Wednesday: Open Forum for all Government and Industry Organizations**
- Thursday: Protective Forums for Company Proprietary and Classified Presentations**
- Presentations by Key Members of the Government & Industry**
- Facilitated Discussions on Future Missions and Technology Developments**
- Hosted at Boeing Facility in Huntington Beach, CA**

Thank You

Enjoy the 7th Annual CubeSat Developers Workshop !