



Eugene L. Carnahan
Cadet Squadron 85
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NEWS RELEASE

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*Aerojet Chemistry Specialist Mark Graham, demonstrates what happens to a ping pong (with a pin hole) after it is immersed in liquid nitrogen and then put into cold water – it spins and gets airborne!
(Photo courtesy of Randal Creger)*

CIVIL AIR PATROL SQUADRON LEARNS ROCKETRY BASICS FROM AEROJET

CALIFORNIA- Cadet members from Eugene L. Carnahan Cadet Squadron 85 were recently treated to a special speaker from GenCorp Aerojet, Chemistry Specialist Mark Graham. The cadets are currently focusing on rocketry during their Aerospace Education and are building up to the Model Rocketry Certification program.

Mr. Graham briefed the cadets the basics of rocketry, including the history, key figures, types of propulsions and the different space missions. In addition, Graham demonstrated the effects of liquid nitrogen on a balloon, a vacuum on a marshmallow Peep™, and the difference between cryogenic (liquefied gases stored at a very low temperature) and hypergolic propellants (fuels and oxidizers which ignite spontaneously on contact with each other).

The night was topped off with showing how a ping pong ball can act like a small rocket, when the air inside is displaced with liquid nitrogen, and then placed in cold water – it spun around the bowl of water and actually became airborne.

GenCorp Aerojet was instrumental in the successful “May 25 landing on Mars by NASA’s Phoenix spacecraft. Aerojet provided mission-critical propulsion for all phases of the voyage ranging from launch, cruise and for the smooth landing onto the northern polar region of Mars. This landing, the first successful actively guided descent onto the Martian surface since 1976, used 12 pulsing monopropellant hydrazine engines to guide the spacecraft to the surface. Eight Aerojet cruise engines guided the spacecraft en route” (Aerojet News Release, 27 May 2008).

The Civil Air Patrol, the official Air Force Auxiliary, is a nonprofit organization. It performs more than 85 percent of inland search and rescue missions in the continental United States as tasked by the Air Force Rescue Coordination Center. Volunteers also take a leading role in aerospace education and serve as mentors to America’s youths through CAP Cadet Programs. For more information about Civil Air Patrol programs, visit their website at; www.cap.gov or call 1-800-Fly-2338.

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