ENTREPRENEURSHIP & INVESTMENT SYMPOSIUM (E6)
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ENABLING NEW BUSINESS AND RESEARCH OPPORTUNITIES WITH THE DRAGONLAB SPACECRAFT

Abstract

Space Exploration Technologies (SpaceX) has developed the Falcon family of launch vehicles and the Dragon spacecraft. The Dragon is reusable spacecraft made up of a pressurized capsule and unpressurized trunk used for Earth to LEO transport of pressurized cargo, unpressurized cargo, and/or crew members. Initiated internally by SpaceX in 2005, Dragon will be utilized to fulfill our NASA COTS contract for demonstration of cargo re-supply of the ISS. The Dragon capsule is comprised of 3 main elements: the Nosecone, which protects the vessel and the docking adaptor during ascent; the Pressurized Section, which houses the crew and/or pressurized cargo; and the Service Section, which contains avionics, the RCS system, parachutes, and other support infrastructure. In addition an unpressurized trunk is included, which provides for the stowage of unpressurized cargo and will support Dragon's solar arrays and thermal radiators.

SpaceX's DragonLab utilizes the Dragon spacecraft to offer a flexible platform for space and is launched to low-Earth orbit aboard a Falcon 9 launch vehicle. DragonLab's low-cost launch opportunities enables business and research organizations to conduct microgravity research, on-orbit manufacturing, radiation effects research, life science and biotechnology studies, Earth science and observations, and materials and space environments research.