



Cleveland Astronomical Society

www.clevelandastronomicalsociety.org

Thursday, Jan 7, 2010 Meeting Announcement

6:15—7:00 p.m. – Get acquainted and snacks

7:45—8:00 p.m. – Short Business Meeting

7:00—7:45 p.m. – Buffet Dinner (Reservations Required)

8:00—9:00 p.m. – Featured Speaker (Free to public)

Leonard Krieger CanalWay Center

4524 East 49th Street (turn onto Whittlesey Way to reach Center), Cuyahoga Heights (216-206-1000)

Speaker: Dr. Rob Landis

NASA Ames Research Center and NASA Johnson Space Center

NEOs Ho! The Asteroid Option

The impetus for piloted missions to NEOs (Near-Earth Object) is political, scientific, and pragmatic. In late 2006, NASA's Constellation Program sponsored a Phase 1 study to examine the feasibility of sending a piloted Orion spacecraft to a NEO. More recently, the Augustine Commission delivered five options to the White House – three of which include mission architectures to NEOs.

Prior to sending a human crew, a robotic precursor mission would be required. This would help increase crew safety and optimize the efficiency of mission operations of the NEO mission. A possible piloted mission to an NEO demonstrates the broad utility of the Orion vehicle and Ares launch systems. Historically, an NEO mission would be a benchmark--the first human foray beyond the Earth-Moon system. Several such piloted NEO missions would enable NASA to gain crucial long-duration, deep space operational experience (a feat not accomplished since *Apollo 17*), as well as learn how to interact with the surface of these bodies. Such missions would increase humanity's knowledge and experience in many areas: the origin of the solar system, the diversion of potentially hazardous objects, and the development of safe and reliable deep space operations.

These factors make piloted NEO missions an essential, incremental step between human Moon to Mars missions, while furthering understanding of these primitive and potentially hazardous bodies.

High School Teachers interested in bringing two students, as our guests, please contact Bob Sledz, President, at 440-333-7827 or sledzbob@yahoo.com by the Friday prior to the scheduled meeting date.