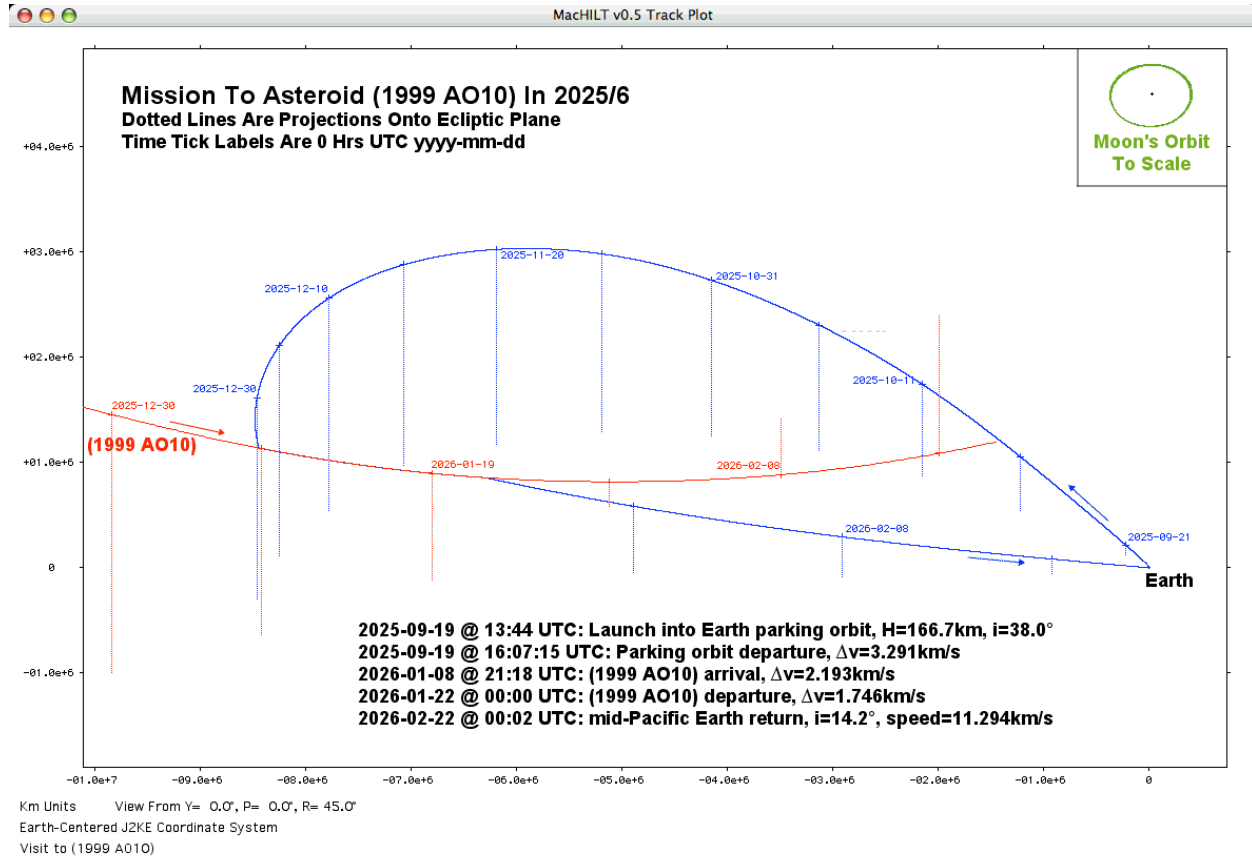




Astrodynamics Technical Committee  
“Lunch-and-Learn”



## Exploring Near-Earth Objects (NEOs) with Human Crews and Robotic Systems

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**DATE: Monday, June 7, 2010, TIME: 11 AM to 12:30 PM, PLACE: \*JSC Bldg 30 Auditorium**

Presenting information on exploring near-Earth objects (NEOs) with human crews and robotic systems. Piloted voyages to NEOs have been suggested by space exploration advocates since the 1960s, but it was not until 1989 that such missions were analyzed in depth as part of the Space Exploration Initiative. Since then, several other studies have examined details of sending humans to NEOs. The most recent assessment has been undertaken by the Exploration Systems Mission Directorate (ESMD) in late 2006 by a team of representatives across NASA. This "Phase I" study examined the feasibility of sending the Orion spacecraft to NEOs using various launch vehicle options. These missions would provide incremental steps towards future human missions to Mars and would be humanity's first foray beyond the Earth-Moon system.

Our presentation will take you through "NEOs 101" background material on what these exploration destinations are like, where they're located, and how much we've yet to learn about them. We'll speculate about near-term robotic precursor missions and how they'll help pave the way for astronauts. Recent research on identifying humanly accessible NEOs will be presented, together with an example of how round-trip NEO trajectories are designed.

*This event is open to badged personnel. AIAA membership is not required. Non-badged visitors who are US citizens may contact us with visitor badging requests 3 days or more in advance. Professional Engineers earn one hour of credit toward Continuing Education requirements by attending this event. If you plan to attend, registration is recommended on-line at [www.aiaa-houston.org](http://www.aiaa-houston.org), where the new web site is a work in progress. For additional info contact Al Jackson 281 483 5037.*

*\*This room does not allow food or drink.*