NASA Advisory Council Recommendation

Use of Secondary Payloads for Technology Demos
2011-01-04 (TIC-0I)

Recommendation: The Council recommends that NASA encourage the use of secondary payloads (where feasible) on future NASA and commercial missions as an important capability for testing, validating, and demonstrating new technologies and scientific payloads in the coming years.

Major Reasons for the Recommendation: The Council discussed the underutilization of NASA and commercial expendable launch vehicles (ELV's) and reusable launch vehicles (RLV's) launch capacities for secondary flight payloads for technology validation and demonstrations. The Council believes that NASA should encourage missions with additional payload capacity to make it available for research. Secondary payloads are vital for testing and proving many technology capabilities, especially in times of constrained budgets and resources.

Consequences of No Action on the Recommendation: Missed opportunity to utilize an underused resource for technology demonstrations. Many transformative technologies that could be validated as a secondary payload would remain at a lower Technology Readiness Level (TRL) level and may not advance for use on later NASA missions.

NASA Response: NASA concurs with the recommendation and agrees that use of secondary and/or hosted payloads would allow for more technologies to efficiently advance to a higher technical readiness level.

As the Office of the Chief Technologist (OCT) identifies technology payloads ready for flight demonstration, the office will work with the Science Mission Directorate and the Space Operations Mission Directorate, as well as with the United States Air Force's Space Test Program, to identify appropriate launch vehicles and spacecraft platforms to accommodate these payloads. This may include either Government or commercial launch vehicles (including OCT/Flight Opportunities Program-sponsored commercial suborbital reusable launch vehicles and parabolic flight services), or accommodation on other NASA or commercial spacecraft platforms.