EXMC TECHNOLOGY WATCH

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ABSTRACT

The Technology Watch (Tech Watch) project is directed by the NASA Human Research Program's (HRP) Exploration Medical Capability (ExMC) element, and primarily focuses on ExMC technology gaps. The project coordinates the efforts of multiple NASA centers, including the Johnson Space Center (JSC), Glenn Research Center (GRC), Ames Research Center (ARC), and the Langley Research Center (LaRC).

The objective of Tech Watch is to identify emerging, high-impact technologies that augment current NASA HRP technology development efforts. Identifying such technologies accelerates the development of medical care and research capabilities for the mitigation of potential health issues encountered during human space exploration missions. The aim of this process is to leverage technologies developed by academia, industry and other government agencies and to identify the effective utilization of NASA resources to maximize the HRP return on investment. The establishment of collaborations with these entities is beneficial to technology development, assessment and/or insertion, and advance NASA's goal to provide a safe and healthy environment for human exploration.

In fiscal year 2013, the Tech Watch project maintained student project activity aimed at specific ExMC gaps, completed the gap report review cycle for all gaps through a maturated gap report review process, and revised the ExMC Tech Watch Sharepoint site for enhanced data content and organization. Through site visits, internships and promotions via aerospace journals, several student projects were initiated and completed this past year. Upon project completion, the students presented their results via telecom or WebEx to the ExMC Element as a whole. The upcoming year will continue to forge strategic alliances and student projects in the interest of technology and knowledge gap closure. Through the population of Sharepoint with technologies assessed by the gap owners, the database expansion will develop a more comprehensive technology set for each gap. By placing such data in Sharepoint, the gap report updates in fiscal year 2014 are anticipated to be streamlined since the evaluated technologies will be readily available to the gap owners in a sortable archive, and may be simply exported into the final gap report presentation.