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LESSONS LEARNED FROM THE INTEGRATION OF ENTERPRISE RISK MANAGEMENT AND KNOWLEDGE MANAGEMENT

Abstract

The challenges of safely operating and resupplying the International Space Station, development of commercial crew capabilities, sustaining commercial cargo capabilities, development of deep space exploration vehicles and advanced technologies, maintaining a world-class workforce, all while staying within mandated budget and schedule constraints are all elements in NASA's complex human space flight risk landscape.

During the period from 2005 to 2014, the National Aeronautics and Space Administration's, Exploration Systems Mission Directorate (ESMD) and Human Exploration and Operations Mission Directorate (HEOMD) combined the enterprise risk management (ERM) discipline with innovative knowledge management (KM) practices to more effectively enable risk identification and problem solving in this environment.

The ERM approach employed early on by ESMD in 2005 encountered several startup transients but matured over time into an effective cross-program senior management tool for the identification, management and communication of risks. KM practices were one-by-one coupled with ERM to enhance risk identification and mitigation planning by sharing this knowledge across the directorate. Later, several KM-related work process improvement initiatives were added which enabled ESMD/HEOMD programs and projects to more effectively reflect on both managerial and technical process performance and provide a structured pathway for process optimization.

This paper will discuss the planning, implementation and execution lessons learned from this integrated ERM and KM effort which are extensible to other organizations.