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Strategic Risk Management for successful space & defence programmes (6)

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SYNERGIES BETWEEN NASA HUMAN SYSTEM RISK RESEARCH AND HUMAN SYSTEM RISK
MANAGEMENT FOR SPACE EXPLORATION

Abstract

Minimizing human system spaceflight risks is a crucial aspect of preparing for exploration missions in the future. The Human System Risk Board (HSRB), acting on behalf of the Office of Chief Health and Medical Officer (OCHMO), manages the in-mission and post-mission crew health and performance risks. HSRB provides an integrated assessment that informs the OCHMO's risk posture, and guides forward work for all entities contributing to the risk mitigation plans. HRP aligns its priorities in accordance with the risk assessments, mitigation strategies, and with HSRB decisions affecting research. HRP defines the research portion of the mitigation strategies to reduce these risks, then manages risk research work using an architecture that describes evidence-based risks, gaps in our knowledge about characterizing or mitigating the risk, and the tasks needed to produce deliverables to fill the gaps. A planning schedule for research milestones is developed with progress tracked using a tool that reflects the risk's research plan for a specific design reference mission. HRP produces new deliverables and technology that can contribute to the evidence base supporting the risks or may be used to mitigate the risk through design or operations. The synergies between these internal HRP and HSRB processes facilitate the success of Human System risk reduction strategies in support of manned space exploration.