

55th IAA SYMPOSIUM ON SAFETY, QUALITY AND KNOWLEDGE MANAGEMENT IN SPACE
ACTIVITIES (D5)

Quality and Safety, a challenge for all in Space (1)

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ORGANISATIONAL DEVELOPMENT FOR A HIGH-RISK ENVIRONMENT: THE CASE OF A
GEOSTATIONARY SPACE STATION**Abstract**

In a complex high-risk work environment, integrating information and making use of the cognitive diversity is of utmost importance. This in turn may require a certain kind of characteristic within the organisational culture which is today known as psychological safety. The term psychological safety has been coined in recent years but its characteristics has emerged during the evolution of the crew resource management (CRM) which was introduced after the Tenerife Aircraft Disaster. Through CRM an environment is fostered where concerns can be raised up the hierarchy and leaders show humility. In this environment leaders are not expected to know everything and feel safe to admit their own mistakes. Although psychological safety is often present in high pressured operational environments such as flightdecks, ship bridges and space shuttles, it hasn't found its way into the board rooms and offices where most latent conditions originate. The question is, how can the board room and office based personnel learn from the good practices from the operational front? Gateway Earth Development Group (GEDG) has been developing the technical, economic and scientific case for a geostationary space station, combining a modular access architecture, a new opportunity for on-orbit satellite re/upcycling and manufacture, and the analysis of using a geostationary station for deep space missions and space tourism. With the complexity involved, we examine in this paper the knowledge management frameworks and standardisation of a human-centred organisational behaviour. We are especially examining the integration of diverse/competing points of view as well as approaches to leadership, task management and cross-organisational interaction.