

Challenges of Life Support/Medical Support for Human Missions (8)
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LONG-DURATION EXPLORATION MISSIONS: IMPACT OF CULTURALLY INFLUENCED
COMMUNICATION PREFERENCES ON PSYCHOLOGICAL SUPPORT OF INTERNATIONAL
CREWS

Abstract

Psychological crew support plays a key role in the success of space missions. Spaceflight conditions, as well as conditions of ground-based long-duration isolation studies, are characterized by sensory deprivation, monotony, significant limitation of communication with the outside world and the familiar communication circle, and a lack of information content, which everybody is used to in today's modern information environment on Earth. One of the important tasks of psychological support of international crews during long-duration isolation (space missions) is the creation a favorable information environment for them. Therefore it is imperative to study the information flow between the crew and the outside world, as well as the specifics of needs of the crew members in receiving different information content (news, media resources) and their reaction to the information provided. Today's general tendency of increased use of media content and remote communication due to the availability of new tools to access information resources (computer networks, mobile devices) needs to be considered also in communication with isolated (spaceflight) crews. For the first time, a quantitative complex study of the impact of cultural background of members of an international crew on their information and communication needs with the outside world during long-duration isolation and autonomy was performed during the Mars-500 project. This study was the basis for the development of a scientifically proven approach to the adaptation of psychological crew support in ground-based isolation studies and long-duration space missions considering culturally influenced information and communication needs of the international crew members. Based on the results of this study it was demonstrated that it is necessary to combine the principle of parity of information support in a long-duration autonomous mission of an international crew with the principle of individualization of psychological support, based on the cultural identity and psycho-physiological condition of the crew members.