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SOCIAL RESEARCH AND SOCIOMAPPING: ADVANTAGE OF IMPLEMENTING THE SOCIAL ACTION RESEARCH MODEL INTO THE “SIRIUS 2017 – 2027 INTERNATIONAL PROJECT”

Abstract

INTRODUCTION The constant threat to the health and life of space crew members living and working for varying periods of time in the space environment, the financial complexity of space programs and the complexity of technical solutions, since the beginning of space exploration, have required the implementation of many simulation and analog studies for the purpose of research and training of astronauts from all over the world. Comprehensive and comprehensive biopsychosocial research of exposed professions is one of the key conditions for the success of long-term space missions, which is no less important than, for example, the influence of radiation and microgravity – weightlessness on the human organism.

TARGET The target is to present comparatively interesting outputs from the analysis of the functioning of the SIRIUS-19 and SIRIUS-21 crews for 4 basic areas of the authors own social research model (Bernardova, 2022, 73. IAC, Paris, <https://iac2022-iaf.ipostersessions.com/Default.aspx?s=5E-3C-6C-5E-A4-86-6B-2B-FF-60-1E-08-FE-3F-35-AC>). Also explain the advantages of deploying the model during a simulated or real space flight. The third ambition is to outline the use of the Sociomapping method as a highly effective intervention and development tool.

METHODS A combination of the author's own questionnaires was used to identify and describe aspects of the extreme and given environment. Data collection took place 'before', 'midway', 'during at regular intervals' and 'after' the isolation. 1. Questionnaire of Work and life satisfaction questionnaire; 2. Questionnaire of the Structure and dynamics of relationships and ties using Sociomapping; 3. Questionnaire of Specific areas of astronauts' lives; 4. Questionnaire of Subjectively perceived health, physical readiness and saturation of human needs. Ad 2. SOCIOMAPPING is a technique suitable for the analysis of non-linear dynamic systems - groups, organizations, population. The method of the Czech author Radvan Bahbough makes it possible to analyze the relationships and links between system elements, to reveal stable and recurring structural patterns and to monitor their dynamics.

RESULTS Content and visually interesting key outputs (graphs, sociomaps) will be presented, which can permanently and significantly contribute to the realization of simulated, later real manned space flights, and thus specifically: 1. to PREPARE human crews for real manned flights and stays in outer space and on interplanetary bases; 2. to REDUCE the RISKS of physical and psychological harm and

loss of life to astronauts, thereby CONTRIBUTING TO PROTECTING the physical and psychological health of a person and a small social group in the 21st century.