

IAF HUMAN SPACEFLIGHT SYMPOSIUM (B3)  
Late Breaking Abstracts (LBA) (LBA)

Author: Mr. Chinmoy Roy  
Antrix Corporation Limited, India

EXPLORING THE LEGAL DIMENSIONS OF HUMAN SPACEFLIGHT: SAFEGUARDING  
ASTRONAUT HEALTH AND WELL-BEING IN THE SPACE ENVIRONMENT

**Abstract**

This research paper examines the legal ramifications of recent scientific findings that reveal that the adverse conditions of the space environment can significantly impact the health and well-being of astronauts, particularly their cognitive functions. Drawing upon international treaties, national legislation, and the policies of spacefaring nations, the research evaluates the legal provisions in place to address these unique challenges. It examines the legal responsibilities of states and space agencies regarding the duty of care for astronauts, including pre-flight medical assessments, on-orbit healthcare, and post-mission rehabilitation. Additionally, it analyzes the potential liability of stakeholders in the event of astronaut health issues arising from space-induced physiological or psychological changes. The paper also delves into ethical considerations regarding informed consent, privacy, and data protection. In conclusion, this paper calls for further research and international cooperation while making a proposal for establishment of comprehensive regulations to address the unique health challenges in space.