

Task 309: Assessment of Screening and Training Requirements for Pilots with Repeated Exposures to Sustained High Acceleration

Project At-A-Glance

- University: The University of Texas Medical Branch
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Relevance to Commercial Spaceflight Industry

- Repeated exposure of the crew to sustained high +Gx and +Gz acceleration in highly demanding spaceflight profiles is a new and untested paradigm. Identifying the unique physiological challenges and medical clearance requirements will enable spaceflight operators to ensure safe operations.

Statement of Work

- Compare pilot performance and physiological response in aerobatic flights, centrifuge acceleration profiles, and actual spaceflight.
- Develop recommendations for pilot training and medical screening.



Status

- Preliminary monitoring techniques for use in the Extra acrobatic plane are being conducted.
- IRB research protocol being prepared

Future Work

- Complete IRB approval process
- Recruit pilots for research study
- Conduct aerobatic flights and NASTAR testing throughout 2015
- Conduct physiological monitoring during spaceflights in 2015 and 2016