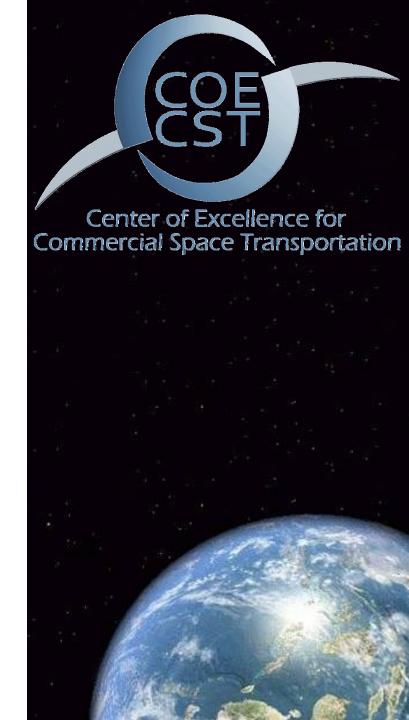
COE CST Fifth Annual Technical Meeting

Task 310: Assessment of methods, procedures, and technologies available for protection of SFPs in commercial spaceflight vehicles

James Vanderploeg, MD, MPH



October 27-28, 2015 Arlington, VA

Agenda

- Team Members
- Task Description
- Schedule
- Goals
- Results
- Conclusions and Future Work

Team Members

- Principal Investigator: James Vanderploeg, MD
- Co-Investigators: Charles Mathers, MD; Rebecca Blue, MD; Tarah Castleberry, DO
- Residents: Benjamin Johansen, DO; Robert Mulcahy, MD; Rahul Suresh, MD; James Pavela, MD

Requesting data from commercial space flight companies

Task Description

 This project will evaluate methods to enhance the safety of the cabin environment and improve space vehicle crashworthiness, individual restraint systems, emergency evacuation systems, and survival equipment.

Schedule

- Complete literature review and analysis in 2015/2016
- Compare current spaceflight operators' interior cabin designs with historical precedents for cabin safety.

Goals

- Optimization of crew and passenger compartments to promote the survival of occupants during human spaceflight operations is a necessary component of vehicle interior fit out.
- Dedicated efforts towards the enhanced safety and advanced crashworthiness of spaceflight vehicles will improve the success of commercial space endeavors.

Results

Pending

Conclusions and Future Work

- Literature search underway
- Students being trained in conducting and evaluating relevant literature review

Task 310: Assessment of methods, procedures, and technologies available for protection of SFPs in commercial spaceflight vehicles



Project At-A-Glance

- University: The University of Texas Medical Branch
- Principal Investigator: James Vanderploeg, MD
- Co-Investigators: Charles Mathers, MD; Rebecca Blue, MD; Tarah Castleberry, DO
- Residents: Benjamin Johansen, DO; Robert Mulcahy, MD; James Pavela, MD; Rahul Suresh, MD

Relevance to Commercial Spaceflight Industry

 Optimization of crew and passenger compartments to promote the survival of occupants during human spaceflight operations is a necessary component of vehicle interior fit out. Dedicated efforts towards the de-lethalization and advanced crashworthiness of spaceflight vehicles will improve the safety of commercial space endeavors.

Statement of Work

 This project will evaluate methods to enhance the safety of the cabin environment and improve space vehicle crashworthiness, individual restraint systems, emergency evacuation systems, and survival equipment.



Status

- Literature search underway
- Students being trained in conducting and evaluating relevant literature review

Future Work

- Complete literature review and analysis.
- Compare current spaceflight operators' interior cabin designs with historical precedents for cabin safety.

