



COE CST Second Annual Technical Meeting:

Flight Crew Medical Standards and Spaceflight Participant Medical Acceptance Guidelines

Richard T. Jennings, MD

November 1, 2012



Overview

- Team Members
- Purpose of Task
- Research Methodology
- Results or Schedule & Milestones
- Next Steps
- Contact Information



Team Members

- Jim Vanderploeg, MD, UTMB (Co-PI)
- Melchor Antunano, MD, FAA CAMI
- Smith Johnston, MD, NASA-JSC
- Vernon McDonald, PhD, Wyle
- Jan Stepanek, MD, Mayo Clinic Scottsdale
- Mark Campbell, MD, Paris Surgical Associates
- Col Steve Nagel, University of Missouri
- Leigh Lewis, MD, UTMB/Mayo Jacksonville*
- Chuck Mathers, MD, UTMB/Mayo Scottsdale*

Purpose of Task



Objectives

- Develop recommendations for medical standards for suborbital and orbital space vehicle crew members
- Develop recommendations for spaceflight participant (SFP) acceptance criteria for suborbital and orbital flight
- Develop an 'Informed Consent' document to appropriately convey risks related to personal medical status

Research Methodology

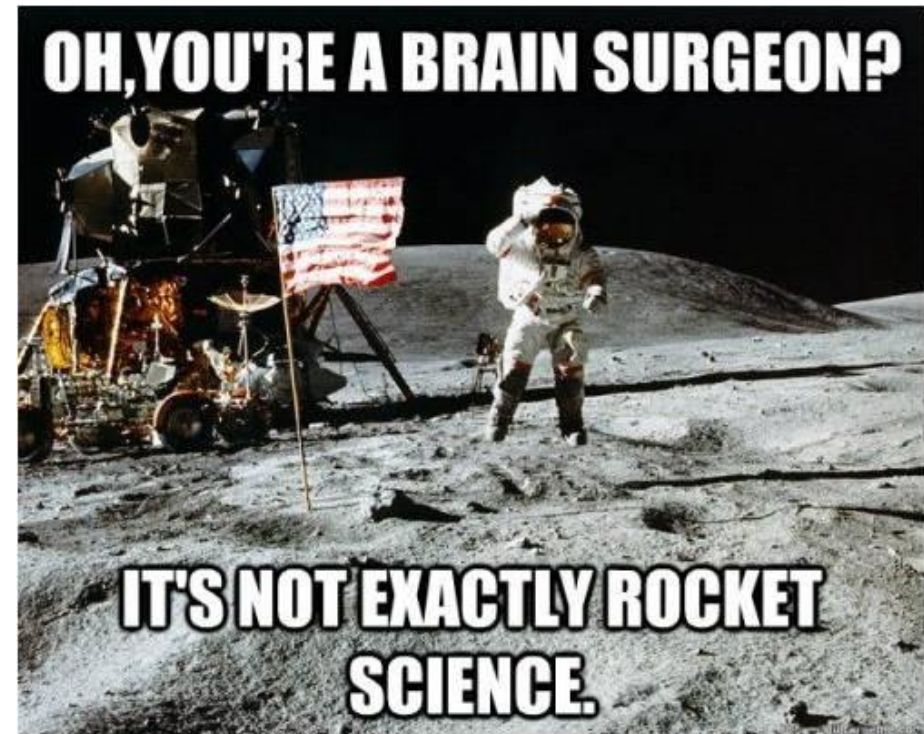
- Industry and expert review of existing documents (12) addressing flight crew member medical certification, SFP medical acceptance guidelines, and testing and training recommendations for crew members and SFPs (Phase I).
- Prepare a draft document incorporating standards/guidelines and recommendations identified in Phase I and distribute for review/input to individuals, agencies, organizations, and companies involved in commercial space flight.

Research Methodology

- Convene a working group of industry representatives and experts in aerospace medicine and physiology, operations, training, safety, and commercial space flight to consider Phase I input and prepare final recommendations for the medical certification of crew members, medical acceptance guidelines of SFPs, and recommended training procedures
- Conduct a preliminary study of the information that is required for spaceflight participants to receive appropriate risk-based “Informed Consent.”

Phase I Review and Input

- SpaceX
- Wyle
- Environmental Tectonics Corp
- XCOR
- Blue Origin
- NASA
- FAA
- Owen K. Garriott



Phase II Review and Input March 2012

- 25 Total Participants
- NASA-JSC (7)
- Wyle
- Sierra Nevada
- SpaceX
- XCOR
- Space Adventures
- NASTAR (2)
- FAA CAMI
- Mayo Clinic, Scottsdale
- University of Missouri
- UT Health Sciences Center
- UTMB (5)
 - 3 residents

What We Have To Date



Flight Crew Medical Standards and Spaceflight Participant Medical Acceptance Guidelines for Commercial Space Flight

June 30, 2012



Informed Consent

- ASM Grand Rounds to Introduce Subject 9/2012
Medical Standards for Spaceflight Participants and Crew: FAA Regulations and Informed Consent-Carminati
- Slide Set Available at
<http://www.dsIs.usra.edu/education/grandrounds/archive/2012/20120925/092512.pdf>
- Medical data collection starts December 2012 (another task) which will help define parameters for medical informed consent discussion



Law School Gym

Results or Schedule/Milestones

- Phase I document completed and distributed for review
- Updated document distributed
- Phase II Review March 2012
- Final Document Delivered to FAA July 2012 (Based on expected expiration of “Human Space Flight Requirements for Crew and SFPs”)
- Informed Consent TBD

Conclusions and Future Work

- This task is essentially completed, and there is no FY13 Funding
- Informed Consent
- Document value increased by including industry, academia, NASA and governmental regulatory agencies in the document creation process

Contact Information

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Quad Chart

